



Uhusiano Design for learning



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ABSTRACT

Kenya's post-colonial education system, like many in Sub-Saharan Africa, has endured many challenges. High enrollment in primary schools is often coupled with low completion rates in secondary and postsecondary education. In this article we examine some of the processes that may lead to the disempowerment and disenfranchisement of youth in Kenyan schools, and report on a new approach that we call "Uhusiano Design for Learning". Uhusiano Design focuses on three aspects of learner-centered pedagogy: multiple teachers (which creates an egalitarian sense of togetherness among participants), hands-on learning, and confidence. Longitudinal data from a non-formal education implementation of Uhusiano Design indicates that the strategies and approaches may support traditionally marginalized learners in and out of Kenya's formal education system.

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1. Introduction

Like many countries around the world, Kenya has explicitly identified education as a lever for development. Kenya's formal education system, which follows an 8-4-4 format, is designed to send its young citizens through eight years of primary, four years of secondary, and finally four years of postsecondary education. The presumed flow of students through this system has been cited in government documents as an impetus to transform Kenya into a "globally competitive and prosperous country with a high quality of life by 2030" (Government of Kenya, p. vii, 2007).

If measured by basic literacy achievements alone, Kenya's educational project can be seen as a success. Its national literacy rate has increased steadily since 1970 and is on par with countries with far greater Gross Domestic Products (Adesina, 2007). Further, its postcolonial curriculum and assessment systems provide students the opportunity to demonstrate knowledge through locally developed and administered curricular assessments in all subjects, including Kenyan history and Kiswahili. However, critics of Kenya's 8-4-4 system have noted that the adoption and implementation process of the 8-4-4 curriculum was highly politicized. Ambutabi argues that during this period, curriculum

design was taken away from specialists in the government and education itself was a political pawn the government. and that during the 1990s and early 2000s, professionals in the field of education lost control over the curriculum (Amutabi, 2003).

Large-scale access to formal education began after independence but increased dramatically when primary education enrollment fees were abolished through the 2003 Free Primary Education (FPE) act. In addition to access, FPE also created a scenario where a significant number of children enrolled in primary school on time (at age of five or six). The increase in on-time enrollment rates was encouraging to policy makers because it was viewed as a positive predictor of primary school completion (Ngware et al., 2013). The combination of increased access and on-time enrollment rates signifies that a larger number of pupils are now expected to complete primary school (Ngware et al., 2013) in comparison to completion rates that were prevalent in the 1980s and 1990s (Eisemon and Schwille, 1991). Ngware et al. noted that the good fortune of on-time enrollment was particularly felt by children in slum areas, who often delay school enrollment because of financial or opportunity cost considerations.

The successes of FPE in regards to on-time enrollment and completion have not, however, been replicated in the secondary level. The introduction of free education in primary school created a massive increase in pupils at primary level, yet this was not followed by a similar investment at the secondary level. When this 'wave' of pupils completed primary school standard eight, from

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2012, this compounded a problem of transition to secondary school that was already acute. So, while in 2007 the gross enrollment ratio for primary education was 87.5% for girls and 105% for boys, in 2010 the gross enrollment ratio for secondary education was just 46.3% for girls and 50.9% for boys (Bunyi, 2013). The dramatic drop in secondary enrollment may be to lack of infrastructure but may also be related to quality for students who can enroll. In general, Oketch and Rolleston (2007) point to the flaws in FPE and successive levels of education because FPE was considered a politically expedient policy, which never really had a quality mandate.

In addition to policy and resource shortcomings, social challenges also influence whether students have access and success in secondary education. Student difficulty with fee paying, lack of learning materials, health problems (HIV/AIDS and early pregnancy), and problems associated with children who are orphaned (Kinuthia, 2009) have all been highlighted as obstacles to secondary school access. In addition, youth (and their parents) have questioned the relevance of secondary education to their educational and vocational needs as they recognize that even if they complete secondary school, they will need to attain additional technical training to be relevant in the workplace (Ohba, 2011). The low transition rate of primary to secondary education raises questions about the unintended consequences of FPE on classroom dynamics and the quality of instruction, in addition to doubts about the purpose of primary education (academic readiness vs. vocational training) (Eisemon and Schwillie, 1991).

The unintended consequences of FPE and social challenges relating to access to secondary schools are not new themes in development literature. Several scholars have investigated ways to address such challenges in the classroom. Kinuthia (2009) suggested one mechanism to increase education opportunity and quality was through the greater use of Information and Communication Technologies (ICTs). The author noted that electronic access to information may create a higher level of engagement and opportunity for Kenyan students, particularly by linking formal, non-formal, and cross-sectorial approaches to education (e.g., technology-enhanced agricultural education). Hardman et al., 2009 documented a change in classroom environments when teachers espoused more active pedagogies (including classroom discussion) and created flexibility in the classroom environment.

However, other authors argued that simple solutions related to educational tools or pedagogies were not enough. Glewwe and colleagues cautioned against putting faith in interventions traditionally found to be effective. In an experimental study of 100 schools, Glewwe et al. (2009) found that textbooks only had significant learning impacts on the highest achieving students in the school. Owuor (2008) and Wamahiu (1996) posited that wholesale change in the epistemology of learning is needed in Kenya, arguing for approaches to education to combat “. . . systems largely characterized by authoritarian climates, irrelevant curricula, poor quality teaching, inadequate physical structures and learning resources, and an obsession with passing examinations” (Wamahiu, 1996).

The challenges faced by Kenya's formal education sector appear to be on many levels – in the social economic challenges facing poor parents and students, in the material conditions in classrooms, in the pedagogical approaches used by teachers, and in the philosophical underpinnings of the goal of education itself. For the latter, Chachage's work is particularly instructive. According to Chachage (2007), education serves three main functions in Kenya: (1) social and economic development at the national level; (2) a way to employment opportunities at the personal level; and (3) a means to forge national cohesion and reduce inequalities left by colonial legacy.

The belief that Chachage's three lofty goals can be achieved through didactic, exam-driven pedagogies is suspect. Recent evidence indicates that results on national assessments do not predict economic development in nations (Kamens, 2015). Further, evidence from other countries indicates that academic learning increases with an increase in the number of years of schooling, but that school completion as a proxy measure of human capital is an inaccurate assumption as completion alone may not provide students with enough skills or capital to impact earning potential (Asadullah and Chaudhury, 2015).

In this paper we are specifically focused on Chachage's Goal 2 (employability), as it is relatively untouched in the formal secondary education system. To address gaps in employability, Kenya has developed a network of post-secondary vocational schools which serve the purpose of developing skill-based human capital for the purpose of employment. Vocational schools are a realistic and attainable educational outlet for many youth, but often fall into the same traps as the formal educational system. According to some scholars, skill-based curricula alone are ineffective because they focus solely on *human* capital but fail to create conditions for youth *social* capital (often a prerequisite for employment and sustained national development) (Conceicao et al., 2001).

In their critique of models of development that exclusively focus on human capital, Conceicao et al. provide two global examples of social capital as levers for development. In both northern Italy (where social networks created strong civil society infrastructure) and Silicon Valley (where networks of innovation created small clusters of economically successful community), social capital was the driving force in development (Conceicao et al., 2001). The authors believe such capital may actually have a stronger force on development than the accumulation of goods and economic capital, and acts as a point of leverage for accumulated knowledge and skill on an individual basis. Such development, however, depends on the capacity of networks (and societies) to accumulate and produce knowledge on a large and socially networked scale. The profits derived from such networks may be financial or symbolic (i.e., membership in important groups, participation in familial or local communities, etc.) in nature (Bourdieu, 1972). According to Sen (2004), such networked capital creates scenarios whereby individuals can begin to engage in public reasoning and contribution toward shared development.

2. Development of connections, confidence, and content learning through Uhusiano Design

Bunyi (2013) points out that conversations about Kenya's educational challenges are not new—and that Kenya's government has been making consistent efforts to reform education. In her analysis of policies over the past decade, Bunyi concluded that the Government of Kenya is well aware of its educational challenges, and has responded by introducing curricular innovations such as use of ICT's, a greater focus on agriculture, vocational subjects, and entrepreneurship. However, she also notes that implementation has been uneven because of the implementers themselves (teachers, school leaders, etc.) and their inability or lack of desire to change (2013). To this end, it may be necessary for Kenya to look outside of its own governmental system for effective curricular and pedagogical innovations.

Because of the perennial challenges found within the formal education system, actors outside of formal education may increasingly play a role in engaging educational thought in Kenya. Promising innovations may include approaches that address character, confidence, social responsibility, and social networks may also improve the social and educational outcomes for Kenyan youth. Further, moving beyond definitions of human and social

capital that solely relate to economic development, particular pedagogies may contribute to a more holistic development of youth. To this end, we investigated a combination of approaches that we label *Uhusiano Design*. We use the term “*Uhusiano Design*” as a shorthand for pedagogy that focuses on social and togetherness aspects of learning (characterized by the Kiswahili word *uhusiano*) and the curricular approaches that intentionally create space for educational engagement (borrowed from terms like ‘design thinking’ and ‘universal design’). In this study we seek to understand if *Uhusiano Design* as an educational approach builds on the participatory approaches outlined by Wamahi (1996), engages learners in ways described by Hardman et al. (2009), and builds on elements of social networking that can be leveraged for enhanced personal and community development (Sen, 2004). We then question whether such approaches may inform practice in Kenya’s formal education system.

In the following sections we will: (1) operationalize “*Uhusiano Design*” as a teaching and learning strategy; (2) report on qualitative findings that exemplify the impact on the engagement and self-confidence of program participants through *Uhusiano Design* strategies; and (3) comment on ways that social network-focused, hands-on, confidence inspiring educational approaches may inform broader practices in Kenya.

3. Youth development in Kenya

As noted above, the broad-based goals of economic development, employability, national cohesion, and nation-building (Chachage, 2007) were intended to be addressed in the 8–4–4 framework. Despite successes, major gaps still exist – primarily in the area of student engagement within the curriculum itself and in terms of creating a culture focused on economic self-sufficiency. According to Omar et al. (2014), confidence and networks are two factors that female entrepreneurs in Malaysia deemed as critical to success. Although this study focuses on Kenya, the lack of opportunity within formal education for developing self-confidence and social cohesion with others (to an extent, a social network) may be delimiting educational development in Kenya.

To this end, we undertook a secondary analysis of qualitative data from a large evaluation project in Kenya. The project itself focused on the impact of three youth development programs in the region through a longitudinal study of participant and stakeholder outcomes. We draw data from one of these projects for this analysis.

As early as the first year of the evaluation project, we noticed that the pedagogy of one of the programs was a persistent theme in our data. Although the program itself was a non-formal, technical-vocational program, our data indicated that specific pedagogies were particularly engaging for youth. Based on these initial findings, we launched a secondary analysis of data in relation to pedagogical inputs that were perceived by youth and stakeholders to be antecedents of successful program outcomes.

Through qualitative inquiry of extant data and conversations between evaluators and organizational leaders, we began to use the shorthand term “*Uhusiano Design*” for the trends and elements we saw in our dataset. The key and immediate motivation for the youth program was to meet the needs of youth who were seeking skills training to secure employment and thus a better life for themselves and their family.

The implementing organization, and developer of what we now call *Uhusiano Design*, is Community and Progress-Youth Empowerment Initiative (CAP-YEI). This non-governmental organization began its programming in Kenya in 2011 by serving out-of-school youth who were in need of employment. This work was started through a partnership with the MasterCard Foundation, which provided funding for the program referenced in this paper. This

program was part of a regional initiative called *Learn, Earn and Save Initiative for Sub-Saharan Africa*,¹ in which the foundation sought to test high potential models for reaching and supporting young people to address the challenge of acute youth unemployment. As a result, the design of the program included a ‘learning partner’ whose primary mandate was to provide an external view of program evolution and impact over time. It was from this relationship that qualitative data about pedagogy were collected and analyzed.

3.1. Overview of the CAP-YEI learning model

CAP-YEI’s primary beneficiaries are out of school, out of work youth, aged 18–25. The organization has focused its pedagogical efforts on approaches that both engage students actively and draw upon cultural considerations of networks as levers for development. The program was based on a successful youth learning model called Basic Employability Skills Training (BEST). The model was originally developed and tested in India by Dr Nalini Gangadharan, founder of CAP Foundation and CAP Work Force Development Institute (India)² and first introduced to Africa in 2008 in Egypt and later Sudan, South Sudan and Tanzania. CAP-YEI organized its pedagogical approaches to meet the needs of constituents who likely had negative educational and employment experiences, yet were still deeply engaged in multiple communities (family, locality, extended family, faith-based, etc.). Seeing these existing realities, the NGO attempted to leverage the existing motivations and capital held by students to promote personal and national development.

4. Evaluation and subsequent analysis of pedagogical impact

From 2012 to 2015, we conducted interviews with a sample of 64 youth who participated in the program. The youth were between the ages of 18–25 and had enrolled in the program after being out of school for one year (due to lack of funds, insufficient marks to continue beyond secondary school, or other family factors which inhibited continued participation in school) and had been unable to secure consistent or dependable employment. All youth lived in economically impoverished areas of Nairobi. In addition to the youth participants, we interviewed 39 staff members about the program and 45 community and business stakeholders associated with the program over a four-year period. Interviews were intended to provide a broader understanding of the overall program impact. Example questions are found in Appendix A.

Each interview lasted between 20 min and two hours, and were conducted in English, Kiswahili, Sheng, or some combination thereof based on the preferences of interviewees. All interviews were conducted by the ‘learning partner’ (many of these interviews were conducted by the first two authors of this manuscript) and a team of Kenyan researchers. As noted above, the primary purpose of the data collection was to provide formative and summative feedback to the NGO and its funder on the impact of its programming. This study draws on four years’ worth of evaluation data that have been specifically examined to explain the pedagogical underpinnings of *Uhusiano Design* and its perceived impacts on youth. Our analysis aimed to answer the following questions: (1) Are there pedagogical approaches that inform the successful outcomes of this TVET programs for youth?; and (2) What conclusions may be drawn from these approaches that can inform broader educational discourse in Kenya? To answer these

¹ See original Request for Expression of Interest at <http://www.mastercardfdn.org/pdfs/Request%20EOI%20Learning%20Earning%20Saving.pdf>.

² See <http://www.capfoundation.in/>.

questions, we examined data from our four-year evaluation within the setting, context, and results of the CAP-YEI project.

5. Setting and context

CAP-YEI's programmatic approach, BEST, is the umbrella for all activities occurring in classes taught by the NGO. The BEST model is based on a circular process which involves learning about local employment possibilities (market scan), developing an appropriate skills curriculum, entering a new community through community meetings and dramatic events (road shows), providing youth with life skills (induction), vocational skills, financial literacy and business training (classroom teaching), field-based assignments, work readiness modules, and field-based placements. In delivering this model, CAP YEI engages industry partners, business owners, financial service providers, civil society and community leaders in an active partnership that runs through most of its stages, from market scan, curriculum design and delivery, mentorship, financial literacy and access, job placement, market linkages and review of the program after each learning cycle. Once a cohort or batch of youth are in field placements, internal evaluations of the program, which involve youth beneficiaries, stakeholders and staff, are conducted and new market scans, or market scan revisits are conducted. The entire training process for the youth takes four months (three months in the classroom and one month in an attachment). The amount of time spent on program review, market scans, and curriculum development varies. Box 1 (below) provides an overview of the BEST model.

In this manuscript we focus primarily on steps 4–8 above. We found that the induction, and classroom and field-based training modules were the times when *Uhusiano Design* principles were most evident. Specifically, in day-to-day programming, CAP-YEI youth participants engage in discussions that are presented in a variety of ways (e.g., role plays, discussions, case studies, and videos); respond to material in flexible ways (through drama, writing, small group discussions, and practical training); operate at a high level of engagement (through activities that link content with real-life outcomes, community-oriented approaches, and self-confidence building activities); engage with a variety of mentors and facilitators of learning; and focus on their own agency. Many of the techniques employed by CAP-YEI were purposefully chosen in response to the perceived failures of the more didactic formal system of education.

6. Impact evaluation results

Preliminary evaluations on the program in general indicate that CAP-YEI is meeting its target outreach goals. As of 2015, 5600 youth were served. Overall, the program has a very low dropout rate (2.5%) across sites (Ramirez et al., 2015). In addition, longitudinal data indicate successful implementation. Based on interviews with over 40 youth from the first CAP YEI (2011) cohort, Nikoi et al. (2015) concluded that:

Youth continued to value their participation in the CAP-YEI program. As in previous years, youth and stakeholders highly valued the life skills and financial literacy components. Now that youth have been out of the program for four years there was less discussion about the specific skills that youth learned and more discussion about how youth felt the program helped them. Youth gave the distinct impression that they viewed CAP-YEI as a catalyst in their lives and that they were on one track but after participating in the program, their life took a different turn."

Among 64 youth interviewed in 2015 (from both original and second-year launch cohorts), 73% are employed and 8% are engaging in entrepreneurial activity (Nikoi et al., 2015). Such results earned CAP-YEI a distinction as the best TVET model in Sub-

Saharan Africa in a competition sponsored by the United States Agency for International Development and African Union.³ In general, CAP-YEI has experienced great success, but continues to work toward its goal of gender parity in programs (which are now comprised of 60% male and 40% female participants) (Nikoi et al., 2015).

7. Analysis

For the broad evaluation project, all interviews were translated into English during and immediately after the interview as needed, then transcribed in English. The resulting transcriptions were then coded using NVivo qualitative software and organized into thematic units by the second author of this article. Themes were then shared with a larger group of researchers for feedback, and finalized by the main data analyst (author #2). From this coding activity, a variety of themes emerged related to student engagement, confidence, and agency. We reorganized these themes and, in consultation with the organization, attempted to label the package of pedagogical practices that emerged from the BEST Model, steps 4–8. In the paragraphs below we report our findings from interviews.

8. Results

8.1. Many voices and social networks facilitate learning

Youth appeared to benefit most from the multiple voices engaged in the teaching process. In Year 1, 32 of the 64 youth reported that mentors and peers were important to the process of learning. Through employing outside experts, program facilitators, and youth-as-teachers, youth experienced content from a variety of voices and experiences (including site visits, motivation talks and networking activities). This finding aligns with Owuor's (2008) assertion about the need for community engagement and expertise in the educational process, but the model is also unique because it privileges youth as co-constructors of knowledge, valuing the network of youth as a teaching tool.

For half of the youth, the practicality of meeting with successful mentors was important from a networking standpoint. In-school opportunities to leverage connections seemed an important aspect of programming for youth:

We have some trips to these places organized by our facilitators, the more we visit the more we understand what is done in these companies, I met an electrician I asked him if they had anything, I think it is a good opportunity. (CAP-YEI Youth).

Relatedly, social capital was developed within the youth cohort itself. Rather than compete with each other for top performance honors (as is standard practice in formal schools), youth were organized into peer support, savings and learning activity groups and quickly began to realize that their fellow youth were potential partners for present and future endeavors. As one youth stated:

Putting together the youth here. It has been quite helpful, because I have been able to help people with different knowledge, when we get to meet all of us we can establish a network, I used to have fewer friends than I have now. I [now] have 81 people who are my friends. More than 1/3 of them I can share ideas with as youth of this country. Putting us in this environment is very helpful. (CAP-YEI Youth).

³ See http://www.wfconnections.org/967_competition_tvete_for_the_21st_century_in_africa_the_most_promising_practices_on_the_african_continent
http://www.wfconnections.org/967_competition_tvete_for_the_21st_century_in_africa_the_most_promising_practices_on_the_african_continent.

Further, getting out of the classroom to meet with employers and role models demystified the process of engaging with others outside of one's own current social station. One youth reflected on a field trip:

It's like the trip we went through looking for the attachment. I was not looking for the attachment, but we were looking for the places where we could work for. This made me to talk with the heads of big institutions. It also made me be courageous on how to chat with people. (CAP-YEI Youth).

Overall, the value of multiple voices in the classroom learning experience was perceived as very beneficial:

Mentors coming to speak with us have inspired us a lot. When we get a mentor I put myself in their shoes and I think about inspiring people. In school you only see your teacher. If only they will open up their minds and figure out what we can do with these people. The facilitator will do what is with this program, the mentor tells you what things to put in place to make sure you are successful, all the aspects are quite helpful and good (CAP-YEI Youth).

In sum, half of the youth interviewed in Year 1 (immediately after the program concluded) claimed that the distributed learning model of CAP-YEI helped them to better learn. The purposeful inclusion of external mentors and role models as part of the learning process as well as the development of peer-enabled learning were perceived as effective strategies by youth.

8.2. Hands-on learning and assessment

Children and youth typically demonstrate knowledge in formal schools through verbal reports to teachers, written assignments, and examinations. In the CAP-YEI program, however, youth are expected to express themselves in different ways. The most common “expressive” practice that CAP-YEI youth engage in is authentic assessment, or practical demonstration of knowledge. Such demonstration often manifests itself in technical demonstrations of new skills developed. In total, 48 of the 64 youth in Year 1 found the practical and skills-based components of the program to be particularly helpful. In this environment, learning and assessment were implemented through physical demonstrations and supported by practice. According to youth, such hands-on approaches helped them commit aspects of their program to memory in a far more effective way than learning theory alone. Elements of practical learning are intentionally a core part of the curriculum. Staff attributed hands-on learning as a key element to success in the program. The practical element is an intentional part of the CAP-YEI program. One staff member confirmed that

the classes, the way they are offered is slightly different, there's a lot of practical activity. They sometimes have theories, but we have even created a structured way so that the practical is never left out. Young people are always practicing these things that they are told. They are being asked to do things (CAP-YEI staff).

Another staff member described the process and intentional nature of the learning-by-doing approach.

They are being asked to do things. And number two, putting young people into . . . how would you describe it . . . into a discomfort zone all the time, that things that they think they cannot do when they come to CAP, we tell them, 'Oh, yes, you can.' Like, a year ago, we used to just ask young people: 'Are you confident that you could actually go ask somebody for a job and get it?' At the beginning, they would say no, and at the end they would say: 'Yes, I can.' Why? 'I've done it', because they have done it, part of the placement program, a lot of the young people find those placements *themselves*. The facilitators do help the majority of them, but quite a few from the young

people themselves. And when they finish the placement, a lot of young people also find the jobs for themselves. For them to reach that point where this word called “employment” was like another planet, and now they are part and parcel of it, it takes good facilitators to take them through these steps to get them to practice over and over again until the fear goes away, until they gain that confidence, and then to get them to experience success over and over again, until they realize, “Yes, I can do this, I don't even know, I thought I couldn't do it, it is so easy.” So, that is how it has been working (CAP-YEI staff).

As noted above, more than three-quarters of youth interviewed immediately after completing the program named skill development as a key learning outcome. Two youth exemplified this approach, one contrasting hands-on learning to experiences in the formal education system.

We have been able to go to companies. The program is skill based. The Kenyan curriculum, the 8–4–4 is full of theory, here you are able to practice what you have been taught. That is one aspect that is very helpful. If I practice typing I never forget it. If I practice wiring I know the red one is live wire, the yellow one is always neutral. When it is theory it will not sink, when it is practiced it is excellent (CAP-YEI Youth).

I have already opened my (savings) account. And also we used to go for the field visits and [one time] we went there at London Distillers and we did a practical thing. To me it was actually something like a goal because I wanted to know practically to do this domestic wiring and I did it (CAP-YEI Youth).

8.3. Confidence

A third prevalent theme in this study was the level of confidence building through ‘life skills’ reported by youth. Life skills (a term that encompasses broad practices in confidence building and communication) was identified as an important programmatic aspect in 48 of the original 64 post-program interviews conducted. The development of the self in youth (as a participating and active community member) was frequently reported as the most memorable and important part of the program. The “Life Skills” curriculum, developed in India and adapted for Kenya, was specifically designed to inspire youth. One youth described the CAP-YEI pledge as particularly meaningful.

The CAP pledge has helped me in believing in myself, it says I believe in myself and my ability to succeed. Toward the end it says I always do what makes my family, my community, and my country proud. We would have people who believe in themselves on the inside. One thing in 2007 there was post-election violence. The people fighting were just a little . . . Maybe because they did not know who am I in my inner self. If only they were able to establish that I am a person of great integrity they would know it is not what others think it is what I think (CAP-YEI Youth).

After the program, a community stakeholder observed: (I was) impressed to find that students are put in groups and they open accounts, and also they are assigned responsibilities within their groups. Maybe today, one will be assigned to make mandazi. The other one will make tea. And then they come and sell stuff to their colleagues. That way, they are creating some skills in these young people, so they can be entrepreneurial. They can be creative. So even if they don't go to employment . . . you can even engage in those other small businesses. Also, a number of ways, CAP is a very interesting program. For me, I had a lot of confidence in it even before it started. But for any other person who would not agree with that, how CAP had changed things. One, the issue of . . . inside their program, there's a time

they sent their students out there to find out what happens in the job market. That builds confidence in this training in this learner that are finishing tomorrow, and . . . the field I'm going into, this is the amount that person earns. This is the working conditions. This is the way the people behave in these fields. That is one. Number two, we also have another aspect that is networking that is very good, where mentors from different fields come. People who are successful in businesses and employment come and talk to these young people on maybe issues pertaining to 'this is the market I am in as a mentor, and you can also be successful in the same field'. So, these people help the young people improve and when they go out there, they see things from a different perspective. Another thing is that again they allow their students to practice the issue of saving and investment very early in the program. And the other day, I was also very where they're really concerned that every young person who is within their program secures an internship. That is really very critical, because internship is a way of forcing them to practical aspects of their course. So that way they are again able to see, 'I can work in any field. I can achieve success' (CAP-YEI Stakeholder).

Overall, the focus on life skills was an impressionable part of the curriculum for more than three-quarters of the youth interviewed immediately after the program. Follow-on interviews in the years to follow indicated that life skills were among the most important lessons learned during the CAP-YEI program.

9. Discussion

Three key findings emerged from analysis of qualitative data. First, having multiple teachers and role models allowed youth to engage with a variety of mentors and peers toward a broader learning goal. Youth reported that the sense of connection developed through networks and contacts with multiple stakeholders provided them with a sense of empowerment and possibility as they moved forward in their educational and vocational goals. The networks created a sense of togetherness that permeated through the learning environment. This sense of togetherness, or *uhusiano*, created a dynamic whereby youth focused both on how they might benefit from and contribute to those with whom they are connected.

Second, youth reported that the hands-on nature of the learning allowed them to see the concrete outcomes of their learning. In interviews, youth noted that the utilization of hands-on learning coupled with authentic assessments engaged them and helped them to understand their personal strengths and areas of need in specific content areas.

Finally, youth noted that the confidence developed through life skills helped youth to see themselves as a positive member and contributor to their society. The youth who typically join the program are thought of as marginalized, a population on the fringes of their communities primarily due to their economic status and future options. Through the life skills induction period, youth noted that they began to see themselves as capable of making their own decisions (agency) and following through on their goals and dreams as participating members of their home and national communities.

The purpose of this study was to retrospectively examine the pedagogical techniques that youth and stakeholders believed contributed to positive outcomes in a youth development program. Through retrospective interviews, Kenyan youth identified three important factors related to their perceived success and engagement in a non-formal education program: (1) multiple teachers and social networks; (2) hands-on learning; and (3) confidence. The

relatively low dropout rate (2.5%) during the program may be partially explained by the level of engagement youth experienced through these pedagogies.

Critics of Kenya's formal education system have claimed that pedagogies are too rigid and overly-reliant on didactic pedagogies and exams as mechanisms for sorting students (Hardman et al., 2009; Owuor, 2008). The *Uhusiano Design* model appears to represent a package of pedagogies that provide socially-enabled learning, concrete skills through practice, and a sense of self-worth.

The development of non-didactic strategies has, based on self-reports from youth, broken through some of the non-engaging pedagogies experienced by youth in Kenya's 8-4-4 system. Employing pedagogies that allowed for multiple voices in the teaching process gave youth an opportunity to practice skills in an authentic way, and developed agency as part of the educational process appeared to have bolstered youth opinions of the program (and, according to youth, connected them with new opportunities). Because of this, Kenya's Technical and Vocational Education Authority has taken up some of the approaches in their own centers.

Although there are obvious challenges and dangers to replicating a design strategy used in non-formal education in any other educational system, we argue that *Uhusiano Design* may also provide a broad conceptual framework for thinking about the enterprise of education in Kenya's formal schools. Through our preliminary results, we have found that youth were impacted by opportunities to connect with and learn from multiple sources, engage in hands-on activities, and develop confidence and agency. *Uhusiano Design's* togetherness approach challenges the notion that learning occurs individually, through one teacher and one exam. Instead, we report on this model that was based on communities of learning, social capital, and hands-on results. The *Uhusiano* model may not be appropriate for all settings, but provides a thought framework for addressing historical challenges in Kenya's formal educational system.

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Appendix A.

Sample Interview Questions

Youth

1. How have other peers or adults supported you to achieve your goals, if at all?
(Probe/Clarify: Are these peers or adults involved in this program?)
(Probe: If not supported, what would you need to achieve your goals?)
2. Give me an example of a goal you have accomplished for yourself since starting this program.
3. What skills have you learned in CAP YEI program that help you with your current or future work?
(Probe: What other skills do you feel you need for your work?)
4. What skills have you learned in CAP YEI program that help you with your current or future work?

(Probe: What other skills do you feel you need for your work?)

5. Which aspects of this program have been most useful for you? (Clarify or probe by asking specific aspects of the program, such as teachers, learning experiences, etc. Probe to understand how it is useful for own learning, for job, for future)
6. Which aspects of this program have not been relevant for you? (Probe to clarify: Not interesting or not helpful to your future work or life)
7. Is there anything more you'd like to say about the CAP YEI program?

Staff

1. What did the [name of program] training address over the past few months?
 - a What challenges to developing/implementing the curriculum and training have you had over the past few months?
 - b What have you specifically designed and implemented related to life skills in the past few months? What have students learned from this?
 - c What do you think students most learned from the program/training over the past few months?
2. Can you please update us in terms of where you are in your program implementation [at each site]?
 - a In your opinion, what has been most successful at xxx site? [repeat as appropriate]
 - b Have there been any surprises or challenges? Kindly explain.
 - c As you look ahead, what changes, if any, do you plan to make to the program?
3. I would now like to know more about the specifics of the program curriculum. Please think about the past few months of training.
 - a From your perspective, describe any challenges you have faced recently in implementing the curriculum (vocational/technical, lifeskills, entrepreneurial, apprenticeship or business clubs, etc.).
 - b Has this curriculum or implementation changed in the past few months? If so, how?
 - c Secondly, what do you perceive the students have learned from the different components of the program? In general, could you please comment on the student learning that you have observed in the past few months?
PROBE: Is there a particular story you could tell that illustrates an example of student learning in the past few months?
4. Kindly share how youth participants are feeling about the program.
PROBE: Is this different from what you have observed previously?
5. Thank you. To probe this further, kindly describe what you think youth participants appreciate or enjoy about the program.
6. In addition to hearing about these positive experiences, we want to understand the range of experiences of youth in the program. Please feel free to share any challenges that you have faced in working with the participants in the program.

Stakeholder Questions

1. How has your community/organization responded to this program?
2. Are there any ways that your community/organization has learned to support youth through this program that you hope to continue when the program ends?

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