

# TITLE: ICT for Youth Employability By Kampabits

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## Introduction

With our agenda set on including disadvantaged youth into gainful employment, Kampabits set out to research latest tech market trends and use opensource tools and new methodologies to deliver a quality hands-on ICT skills training to the vulnerable youth while creating safe spaces to persons with disabilities.

## Abstract

KampaBits is a youth based organisation that positively changes lives of vulnerable youth by improving their access to productive employment and ability to cope with their social environment through creativity and innovation since 2010. Kampabits has placed over 300 youth in gainful employment.

IN partnership with The Commonwealth of Learning, a six months ICT for Youth Employability project was implemented for youth from the informal settlements in Kampala and Wakiso (August-2018 – January-2019). Focus was on improving livelihoods of 95 (48 girls, 47 boys) youth through hands-on skills training to attain a competitive edge in the job market in skills that include: Graphics & web Design, life-skills and sexual reproductive health.

The project also focused on disability inclusion and included 10 youth with disabilities, which was made possible through support from our partner Light For the World

Past trainings were completely based on the use of enterprise softwares to deliver training content and the curriculum not evolving to tackle the changes in employer demands, the just concluded training focused on use of free open source software and renewed engagements with employers to identify current job skills which aided curriculum updates to impact marketable skills to learners

Using OASIS open learning resources, Kampabits repackaged the training materials with updated curriculum that was in accordance with market needs. Skill trends are largely influenced by two major software development partners in Uganda namely: Andela Uganda and Tunga

93 youth graduated with 74 youth already in either internship/Job placements

Our methodology increased the opportunities youth needed in attaining gainful employment due to change in employment policies where employers focus on hands on skills when recruiting instead of degrees especially with regards to ICT and innovation. This has in turn driven the government of Uganda to set up vocational institutions that focus on hands-on skills and apprenticeship

# Literature Review

## Youth in Uganda

Youth in Uganda are the youngest population in the world, with 77% of its population being under 30 years of age. There are 7,310,386 youth from the ages of 15–24 years of age living in Uganda.

In Uganda the male to female ratio is 2 males per 100 females. Ugandan youth experience different lifestyles depending on if they live in a rural or urban area. Many youth decide to migrate from the rural areas to the urban areas based on factors that include kinship ties and friendship ties, rural incomes, role of rural education, and the rural social system

The unemployment rate for young people in Uganda ages 15–24 is 83%. This rate is even higher for those who have formal degrees and live in the urban areas. This is due to the disconnect between the degree achieved and the vocational skills needed for the jobs that are in demand for workers.

Those without a degree are also not able to obtain jobs because they lack the skills needed for the position or they don't have the resources such as land or capital. Some youth also have negative views on certain jobs so they are unwilling to take them if offered a position.

Informal sector work accounts for the majority of young workers in Uganda. 3.2% of youth work for waged employment, 90.9% work for informal employment, and 5.8% of the Ugandan youth are self-employed

Age at sexual debut within this community in 2000 was reported at 16.7 years for young women and 18.2 years for young men, while the median age at marriage was 19.5 years for young women and 24 years for men. Information on sexual and reproductive health for young people comes from a variety of sources including parents, paternal aunts (ssenga), uncles (kojja), older brothers and sisters, peers, radio and newspapers.

When asked if they had knowledge about HIV, 38% of males ages 15–19 said yes and 31% of females in the same age range said yes

## Refugees in Uganda

Uganda has a longstanding history of hosting refugees with more than 1.1 million refugees and asylum-seekers as of October 2018. The country has received more than 1 million refugees from the Democratic Republic of Congo and South Sudan since July 2016. These protracted situations as well as the recent influx of refugees have strained the resources of the humanitarian system and put enormous pressure on the resources of host communities and on the environment.

Most refugees reside in designated refugee settlements located across 11 districts and in Kampala. The Government of Uganda allows freedom of movement and provides land to refugees settling in designated areas, the right to work and access to national services. The North and West Nile regions, where most refugees live, are among the poorest and most underdeveloped areas in the country.

Children, adolescents and youth make up the highest population bracket among the displaced populations in Uganda. Some 57 per cent of school-aged refugee children are out of school, the majority of whom are girls. Adolescents and youth account for a third of the refugee population, with the majority suffering from the lack of appropriate learning and employment opportunities. Refugee women and girls, who comprise approximately 55% of the refugee population in Uganda, are at risk of heightened social and economic vulnerabilities.

Many refugees in Uganda have limited income-generating opportunities, and both refugees and host communities are challenged by the lack of access to capital/ formal financial services; lack of access to cultivable land and water; poor market connectivity; limited skills and the few formal employment opportunities.

## **Persons living with disabilities**

According to the Uganda Population and Housing Census Report (2002), four out of every 25 persons in Uganda are persons with disabilities.

The report continues to mention that the prevalence rate in 2002 was higher than 11% obtained from the 1991 Census. The prevalence of disability increased with age from 2% among children aged less than 18 years to as high as 18% among the elderly.

The prevalence was not even throughout the country. In the central region, it increased from 1.0% to 3.1%, Eastern region from 1.2% to 3.6%, Western region from 0.9% to 2.9% and Northern region from 1.9% to 4.4%.

The prevalence increase was partly attributed to the improvement in the methods of data collection in the census. This increase may further be attributed to improved service delivery in health care better nutrition, sanitation and community based rehabilitation services which have improved on public awareness, change of attitudes leading those with disabilities living longer.

At 3.4% annual growth rate, the population of PWDs is estimated to have increased to-date.

The most commonly observed disabilities were loss and limited use of limbs 35.3%, spine injuries 22.3%, hearing difficulties 15.1%, seeing difficulties 6.7%, difficulty in speech and conveying messages 3.9%, mental retardation 3.6% mental illness 3.6% and others at 9.6%.

The Northern Region has the highest rate incidence of disability rate at 4.4%.5.

Generally, PWDs are vulnerable by virtue of their impairment and negative societal attitudes arising from fear, ignorance, superstitions, neglect and lack of awareness. As a result, PWDs have inadequate access to services, information, resources as well as limited participation in the socio-economic development process. Consequently, the majority depend on their families and communities for survival.

With limited skills characteristic of most PWDs, accessing employment is a major challenge. Most potential employers do not give chance to PWDs to compete for employment even where they have the necessary qualifications and experience. Consequently, the majority of PWDs are unemployed.

## **The problem or challenge.**

Youth unemployment poses a serious political, economic, and social challenge to the country and its leadership. The cycle is making it increasingly difficult for Uganda to break out of poverty. Young women also more often have to stay at home in a maternal role from a very young age which limits their ability to work and this income inequality in homes accounts as the root cause of gender based violence cases.

Given the rapid growth of the Ugandan population and refugee influx—three-quarters of the population are below the age of 30 years—coupled with the fact that the youth are getting better educated through higher access to primary and secondary education, a stronger focus on skills development for this cohort of people cannot be overemphasized.

## **What others have said or done about this or a similar challenge.**

### **The Government of Uganda:**

The Youth Livelihood Programme (YLP) is a Rolling Government of Uganda Programme, targeting the poor and unemployed youth in all the Districts in the country. The Programme is implemented under the Ministry of Gender, Labour and Social Development (MGLSD).

YLP is a community demand-driven Programme that is implemented with guidance from the Central Government and the Local Governments. The funds are advanced to the Youth Interest Groups (YIG) in form of a Revolving Fund in order to increase outreach and enhance the sustainability of the Programme.

From the inception of the project in the financial year 2013/2014, about 1595 youths (Male 1030, Female 565) have been supported with a sum of UGX 669,853,550

This is still a very small percentage of the unemployed youth and a lot of effort is needed to curb the rampant youth unemployment.

### **UGANDA SKILLS DEVELOPMENT PROJECT (USDP)**

The Government of Uganda through the Ministry of Education and Sports (MoES) launched a BTVET (Business, Technical and Vocational Education and Training) Strategic Plan 2012/13 to 2021/22 entitled "Skilling Uganda". This plan underscored a paradigm shift in skills development in the country. The plan emphasized creating employable skills and competencies relevant to the labour market rather than educational certificates as was before.

The World Bank funded, Uganda Skills Development Project (USDP) worth US \$100M is one of the options the Government of Uganda initiated to operationalize the BTVET strategic Plan. USDP is a five (5) year project, which was approved in April 2015 and became effective in October 2016. USDP targets enabling programmes to meet skills needs in key priority sectors of the economy i.e. Agriculture, Construction and Manufacturing, in line with Uganda's National Development Plan (NDPII) as well as Vision 2040.

## **The implications of not meeting the challenge or solving the problem**

Young people are more affected than other age groups by unemployment which now affects a wider range of young people than it ever did before, ranging from those with academic degrees to the most disadvantaged young people. This situation leads to:

- High crime rate since the youth resort to crime in forms of murder, theft, drug abuse
- Political instability
- Child exploitation/ Child labour
- Sexual exploitation
- Poor quality of life
- Economic migration
- Social discrimination/ Tribalism

## **How Kampabits has approached the situation and met the challenge**

In partnership with The Commonwealth of Learning, a six months ICT for Youth Employability project was implemented for youth from the informal settlements in Kampala and Wakiso (August 2018 – January 2019). The focus was on improving the livelihoods of 95 (48 girls, 47 boys) vulnerable youth by offering a blend of hands-on training to give the beneficiaries a competitive edge in the job market in skills that include: Graphics & web Design, web development, entrepreneurship, life skills and sexual reproductive health.

At the end of the six months training, 93 youth graduated with 74 youth already in either internship/Job placements (55 youth) or self employment(19 youth).

To begin with, stakeholders engagements were made with various groups of institutions that included: Local Community leaders, religious institutions, community health centres, employers and Community based organisations with various aims explained below.

1. Local Community Leaders: With the just concluded Local Leaders referendum that ushered in new Local leaders in office, it was mandatory for Kampabits to introduce her agenda to these leaders and also lobby support on sensitizing the communities on the opportunities that youth stand to benefit from when they acquire hands on skills for better employment opportunities. Community leaders also played a big role in helping us identify other organisations that they deemed fit for us to work with which included: pentecostat churches, new youth groups, market leaders and the new community based organisations.
2. Community Based Organisations: Played the biggest role in identifying eligible youth for the ICT training, this is because they are located in the communities where these youth live and hence were more suited in helping us identify the most vulnerable youth that need the training and would be fully committed to it. CBOs were also our first line of contact in case any issues arose regarding the youth before the actual parents were involved.
3. Religious Institutions: Uganda being a largely religious country with three main denominations that include: Catholics, Anglicans and Moslems, with these institutions offering the main social support for communities. They go the extra mile to support youth, the sick, orphans and youth with disabilities with various livelihood programs, hence it was important for kampabits to liaise with them about the ICT opportunity that was available for youth.
4. Community health centres: Play a big role in treating youth and sensitizing them on sexual reproductive health, they remain in contact with these youth and were in position to recommend more youth to the training.
5. Light for the World under their “Make 12.4% Work” were also responsible for helping us recruit youth with disabilities to join the training, this move was greatly supported because it was the first time persons with disabilities were given the opportunity to study with other youth in a bid to create more inclusive communities.
6. Employers: Inquiries were made with various companies on the various tech/IT skills that ideal employees should have in order to be absorbed in the job market and also the trending skills that are urgently needed among employees at their workplace.

From the responses collected, three skills sets mostly stood out which included: graphics designers, video editors/motion graphics designers and website designers. These responses were highly attributed to the change in marketing trends and work trends in the recent years in Uganda with various companies recording abnormal profits due to the use of digital marketing campaigns and development of digital tools that deliver services better to their customers. With Internet becoming cheaper and more accessible to normal businesses, it is driving more business to adapt new marketing strategies through websites and social media platforms and hence the demand for graphics and web designers can not be over emphasized.

Also prominent tech companies like Andela(<https://andela.com/>) and Tunga(<https://tunga.io/>) to help ascertain the current trend technologies that would enable our youth blend into those workspaces.

95 vulnerable youth were recruited from the slums Kampala to undertake a six months advanced ICT training in with 10 having a disability (8 with a hearing impairment while two had a physical impairment )

A baseline survey was carried out to collect data on the current situation about the youth to enable us help them better both psychologically and

A baseline survey was carried out to collect data about the youth that would enable us to tailor the ICT training to be more effective and also provide a point of reference for future surveys while measuring the project impact. This required KampaBits staff to come up with survey questions for these youth about the different aspects of their lives including:

- General information (Names, age, gender, contacts)
- Their social economic position
- Community contribution
- Well being
- Life skills
- Sexual reproductive health information

Using feedback from the employer stakeholder engagements, a custom curriculum was developed by Kampabits that focused in detail on equipping the youth with the required skills to get employment after the six months.

Resources used in formulating the curriculum were obtained from the Commonwealth of Learning oasis platform (<http://oasis.col.org/>) that contains numerous books from which resources were repackaged into lessons that were used in the six months training. This greatly improved the quality of our training because of the new content we added and the old content we dropped making the new curricular more relevant and applicable to current skill demands

The six months training was conducted in two shifts i.e the morning and afternoon shift, this was done so as to enable the youth have time to grasp and practise the learnt concepts while doing assignments and group work, the free time was also beneficial for youth who already had families and had to use the remaining part of the day to fend for their families. Learning was largely project based with every concept that was tackled in a bid to boost learner's confidence while grasping these skills.

All lesson involved two trainers i.e the senior and junior trainers that played the teaching roles interchangeably. This lesson setup was done in order to keep the learners focused, support them better in case they go stuck and also acted as a mentorship lesson for the junior trainers.

Lesson plans were grafted at the beginning of the training and strictly followed which ensured that the training targets were made

ICT training was conducted from Monday to Thursday while Entrepreneurship, lifeskills and sexual reproductive health training was conducted on Fridays. Weekends were left free to enable learners to practise the skills they learn during the course of the week and trainers were only available to supervise.

Our methodology of delivering the training was largely dependant on free open source technologies which were used when delivering lesson content to the learners, this ensured that no funds were wasted in acquiring or using these tools.

The opensource technologies used include:

- ODK Collect and the Kobo Collect toolbox that were used in data collection and analysis for all the surveys conducted
- Ubuntu and Lubuntu(Light Ubuntu) operating systems that were installed on all computers that were used by the learners since the Windows 10 licences were expensive to acquire and deemed unnecessary since free operating systems had whatever was needed to fully operate.Using these two Linux distributions (Ubuntu and Lubuntu) also enabled our learners to get a solid foundation in the field of DevOps engineering that largely uses linux and its distributions
- Libreoffice was used as the main word processing and publication software as an alternative to the expensive microsoft office
- Gimp Image Manipulation tool and Inkscape vector graphics tool were used as an alternative to the famous and expensive adobe suite
- Scratch was used to introduce the learners to computer programming before diving into the harder programming languages. Later on, our learners facilitated the training of scratch in secondary schools under the Africa Code week program
- VScode, git, GitHub, raspberry pi and heroku were solely used while training the learners on how to build a website using python and javascript
- Google search engine was heavily used in training youth on various research methods and self help in a bid to promote lifelong learning

Through our partners Light for the World, disability inclusion trainings are carried out for both learners and trainers on how to work with harmoniously with persons with disabilities in a bid to build better safe spaces

Numerous employer stakeholder engagements were carried out to enable learners build confidence and also get feedback earlier on from employers on how we can improve the quality of the training basis on the project presentations they always witnessed.

Graduation of 93 learners in February marked the end of the training and beginning of the three months internship that had been negotiated with the employers that we had been engaging with during the training period. As of end of February 74 youth were already in either internship/Job placements (55 youth) or self employment(19 youth). Those that had not yet been placed continued to use the school premises to level up their skills while we looked for opportunities

Student Follow Ups to employment and internship placements are still going on to get feedback from employers on how youth are faring and what we can improve to ensure better quality of future trainings

## **How approach/solution contributes to the literature review**

Training concentrated on marketable skills after employer stakeholder engagements were carried out and was focused on setting up learners for the jobs of the future.

Other aspects of training like sexual reproductive health, counselling and mentorship were given utmost attention in a bid to mould healthy and responsible citizens.

The training also managed to place more youth in gainful employment and realised two dropouts

## **Variables that need to be addressed in order for Kampabits to move forward**

- Use of cheap open source hardware to increase the number of youth trained and reduce the cost of training. This is due to the fact that we received over 150 applicants but only managed to recruit 95 youth. This shows a dying need for these youth to improve their current condition which can be realised by Kampabits purchasing more computers and opening up more centres to serve these youth.
- Sustainability of training organisation by setting up a business wing to handle graphics and coding jobs. This mostly affects youth in self employment that get projects to work on and yet lack a personal computer to work on them, Kampabits' ultimate goal is to open up a business wing where these youth can have full access to computers to enable them work on their projects while Kampabits charges them a small commission from the project which in turn goes back to finance the training.
- Continuously update curriculum to current job requirements through periodic employer engagements
- Lobby for support from government by applying for the youth livelihood funds to enable Kampabits set up more training centres around the country
- Lobby more partners that share institution goals for youth like the Commonwealth of learning that are prepared to support organisations that are preparing youth for the jobs of the future

## **Factors Institutions should consider in order to benefit from Kampabits' experiences (i.e. lessons learned)**

- Involve stakeholders to properly understand the needs of youth before implementing solutions
- ICT cuts across all sectors of the economy since we are in the digital revolution
- Life skills are important when supporting the youth

## **Future directions for enhancing theory and/or practice in ICT for youth employability**

- Using raspberry pi in classrooms to increase student numbers and reduce on cost of computers and training. Various advancements have been made to make education tools cheaper and the raspberry pi has proved to deliver this while staying cheap.
- Create new content in trending technologies which the Commonwealth of learning has continued to do in a bid to stay abreast with new technologies greatly impacting the economies of nations, especially their recent publication on blockchain.
- Create hackathons that give the youth power to innovate solutions that are targeted at the problems they experience
- Engage more stakeholders to innovate more on issues regarding youth empowerment
- Increase percentage of persons with disabilities in skills development

## **Conclusion**

For the past five years, the tech ecosystem in Uganda has realized a drastic growth that has largely been attributed to an increase in internet accessibility and affordability due to the reduction of internet costs for both single users and companies. This has created a very large demand of skillsets ranging from mobile app developers, online marketers, bloggers, and web designers, hence the role of innovation in education can no longer be underestimated in ensuring that vulnerable youth quickly acquire the necessary skills needed to tap into these numerous employment opportunities in form of full employment, outsourcing and self employment. Working with the Commonwealth of Learning has also enabled Kampabits to develop capacity to train persons with disabilities which creates opportunity for employers to tap into this labour force which will in turn improve the GDP of Uganda

Emphasis on more partnerships with local stakeholders will also be key in pushing our agenda for getting more youth into gainful employment



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