

# ADVANCED IT AND ENTREPRENEURSHIP TRAINING REPORT 2021



PREPARED BY  
**APPS AND GIRLS**

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[www.appsandgirls.com](http://www.appsandgirls.com)  
[appsandgirls@mail.com](mailto:appsandgirls@mail.com)



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# ABOUT THE PROGRAM

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Apps and Girls with the generous support of the US embassy, we were implementing an innovative program combining advanced IT & entrepreneurship training, mentorship, and incubation for girls and young women in Tanzania.

With this program, students gained important tech skills that will help them navigate the workplace of the 21st Century, which relies much on technology. Competent students will increase chances of securing employment opportunities, notably in ICT-related occupations, or be able to create their own technology-based startups, thus elevating women's socio-economic empowerment.

This doesn't just improve girls' & women's lives but, as decades of research and evidence have proven, it drives wider socio-economic progress! It's key to achieving sustainable development goals and achieving our common 2030 vision. Our unique approach includes; key components to enable women to get the technical and soft skills and support services they need to pursue tech-careers or set up their own tech-based enterprises; A training and business support model that is accessible to girls and women across the region, including girls and women from underserved and underrepresented areas; It also fosters women's social entrepreneurship, and the potential of women social entrepreneurs to drive social, economic, and environmental progress is huge!

Our program provides high-quality, advanced IT training (including web programming, mobile app development, and graphics) for young women. We also provide entrepreneurship training for young women to increase women's entrepreneurship skills through capacity building and promote the inclusion of more women in entrepreneurial activities and other economic activities in Sub-Saharan Africa. We also use technology through an online incubation of women's tech-based start-ups, providing a range of start-up support services for women-owned and -led enterprises in Sub-Saharan Africa, increasing the potential for their success. We believe that digital skills training can boost women's ability to access the formal labor market and launch and manage sustainable enterprises.



# OBJECTIVE & OUTCOMES

This program aimed to promote women's socio-economic empowerment through women's tech-based entrepreneurship and participation in the formal employment sector, notably in ICT-related employment in Tanzania and subsequently in other Sub-Saharan African countries

## Specific objectives:

i) To enable underprivileged young women in Tanzania to benefit from high quality IT and entrepreneurship skills training that will boost their employability;

ii) To implement a pan-African digital incubator to facilitate women (social) entrepreneurs' access to crucial resources to launch and grow their tech-based start-ups: mentorship, access to potential partners, funders, including crowdfunding services, capacity-building support, and access to potential customers;

iii) To pilot an innovative, comprehensive women's IT training and tech entrepreneurship incubation model that can be replicated and scaled up elsewhere in Sub-Saharan Africa;

iv) Through the digital incubator, to spotlight and showcase women tech entrepreneurs, creators, role models, and leaders, and to facilitate cross-border and cross-sector collaboration.

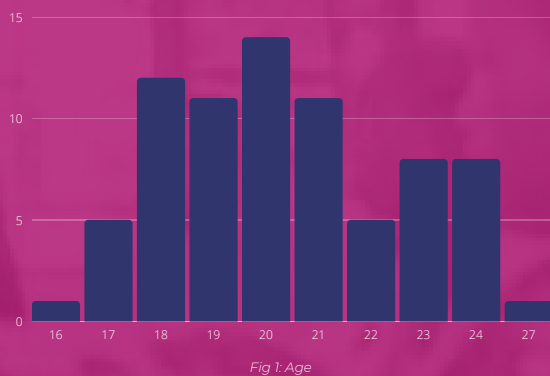
## Project Outcomes

- Improved access to internship and formal employment opportunities of the women who participate in the program.
- Women social entrepreneurs' improved access to mentoring through the online incubation hub.
- Women's increased participation in ICT-related employment.
- Increased awareness of the potential of women tech social entrepreneurs in Tanzania through the offline hubs the online incubator, and the aggregated impact data.
- Women social entrepreneurs' improved access to funding through the online incubation hub.

# BASELINE ANALYSIS

To track the project's impact, we have been keen to gather data and information straight from the beginning of the project to the end. Among the data gathered were baseline data and information from the students which we analyzed based on different variables such as Level of Education, Age, Financial Backgrounds, Residence Areas, Program Commitment, and Expectations of the girls and young women that got enrolled in the program.

Baseline surveys were conducted within the first two weeks after reporting at the Apps and Girls Hub which later were followed by other evaluation surveys.



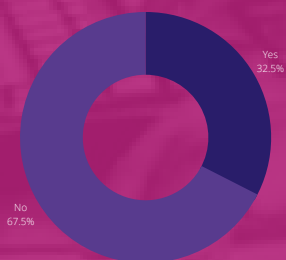
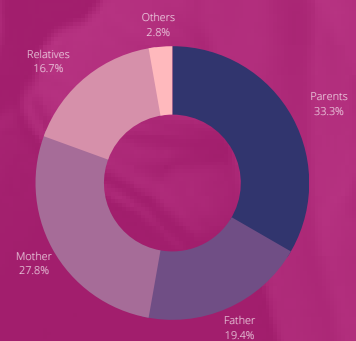
## AGE

The survey explored the age range of recruited students and the results showed that most of the students are between the ages of 17-24: The full age range can be seen on the chart.

## FINANCIAL

The survey explored the financial aspects of the students in various angles like the primary provider of the family and if the students are required to support the family financially during the program; the results show that,

For Dar es Salaam students, the main providers in the family for 30% of the students were Parents (both mother and father) followed by 25.0% mother was the main provider and 17.5% Fathers and 15.0% Relatives and the remaining 2.5% was Mother and Sister, Uncle, Grandparents, Mother, Father and Relatives, and grandmother.



And when they were asked if they are required to support their family financially 67.5% responded No while only 32.5% responded YES they are required to support their family during the program.

# BASELINE ANALYSIS

For Mvomero Students, 70.7% of students said Parents were the primary providers followed by 12.2% Spouse was the primary provider, 12.2% Guardian and 2.4% themselves.

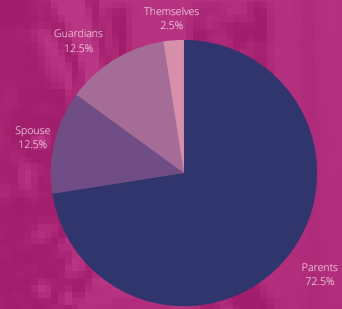


Fig 2.2.1: Financial (Mvomero)

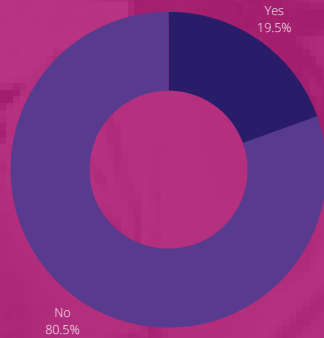


Fig 2.2.2 Financial (Mvomero)

And then they were asked if they are required to support their family financially 80.5% responded No while only 19.5% responded YES they are required to support their family during the program.

## EDUCATION

The survey explored the level of education of the trainees to better understand the highest level of education and the reasons they couldn't continue with the higher education (dropout). From the survey, for Dar es Salaam it shows that most of the trainees highest level of education were Secondary School Graduates (O'Level) by 70.0% while 12.5% were the High School Graduates (A'Level) and 10% had Certificate and Diploma education and the remaining 5% were From-Two and Form-Tree Leavers (O'Level). While from Mvomero, it shows that most of the trainees' highest level of education was Secondary School Graduates (O'level) by 78.0% while 19.5% had standard seven education and the remaining 2.4% had Diploma education.

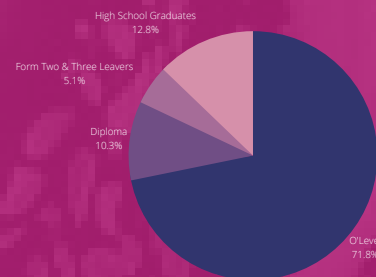


Fig 3.1.1: Education(Dar Es Salaam)

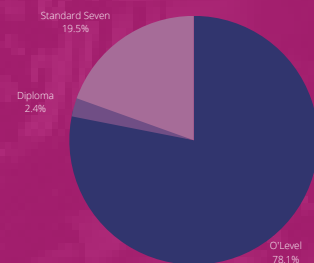


Fig 3.1.2: Education(Mvomero)

# BASELINE ANALYSIS

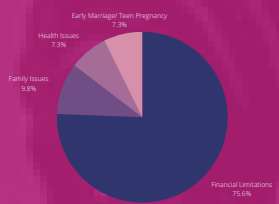


Fig 3.2.1: Education(Dar Es Salaam)

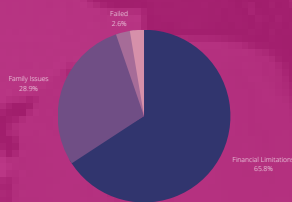


Fig 3.2.2: Education(Mvomero)

When we asked the trainees about why they couldn't continue with the higher-level education, results showed that Financial Limitation was the main reason by 75.6% while 9.8% was due to family issues, 7.3% health issues and the remaining 7.3% was due to early marriage/teen pregnancy For Mvomero. Then for Dar es salaam Financial Limitation was the main reason by 62.5% while 27.5% was because of family issues, the remaining 5% which makes two trainees were failed and another was looking for a job.

## STUDENTS' HOST DURING THE PROGRAM

The survey explored the hosts whom the students are going to stay with during the program. For Dar es Salaam HUB most of the students are staying with their parents by 42.9%, 40% stay with their relatives, 8.9% stay with their guardians, 5.7% stay with only their mothers, and the remaining 2.9% stay with their spouses.

For Mvomero Hub most of the students are staying with their parents by 70.7%, 9.8% stay with their spouses, 12.2% stay with their guardians, and the remaining 7.3% stay alone.

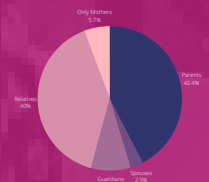


Fig 4.1: Host(Dar Es Salaam)

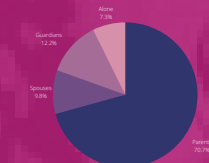


Fig 4.2: Host(Mvomero)

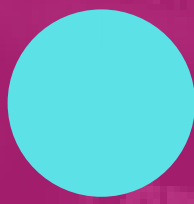


Fig 5: Program Commitment

## PROGRAM COMMITMENT

The survey explored the commitment of the students throughout the program and the survey shows that all the 76 students responded YES to commit themselves to 6 months training program.

## STUDENTS EXPECTATIONS

Most of the students expected the program will help them gain new skills that will help them achieve their goals as some students responded;

“To learn more about technology, be a good Entrepreneur and be able to employ myself after the program”

“To learn more about ICT and technology in different aspects which will help me to reach my goals.”

# END OF PROJECT ANALYSIS

## TRAINING EXPECTATIONS

After the training we asked if training met students' expectations and 75% of students have responded to YES and 25% of students have responded somehow and no one responded to NO, according to the result it was found that the training was able to satisfy the students' demands and expectations

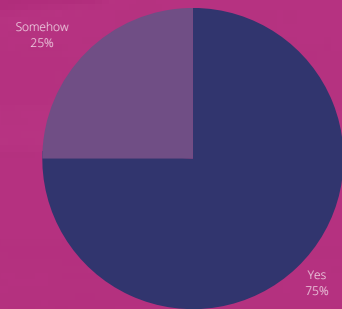


Fig 6: Training Expectations

## TRAINING CONTENT

Here we explored if students training contents were easy to understand, the course delivery, sequence and low as well as the language used satisfied their needs and demands,



Fig 7.1: Overall Course Delivery

### ON OVERALL COURSE DELIVERY

11% students responded somehow 89% responded Yes

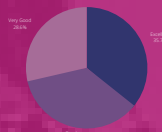


Fig 7.2: Course Sequence and Flow

### ON COURSE SEQUENCE AND FLOW

35.7% responded Excellent and another 35.7% responded Good while 28.6% responded Very Good.



Fig 7.3: Language Used

### ON LANGUAGE USED

100% responded yes to agree that the language used was easy to understand

## TRAINERS

Here we explored if trainers delivery skills and communication as well as the comfortability of students to express their problems to trainers during the program;

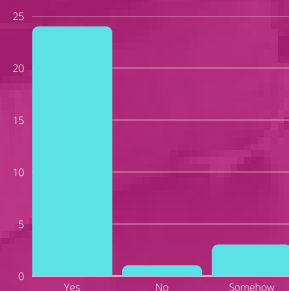


Fig 8.1: Comfortability of students to express their problems to trainers

### ON COMFORT ABILITY OF STUDENTS TO EXPRESS THEIR PROBLEMS TO TRAINERS

24 students responded YES that they were comfortable expressing their problems to their trainers, 3 students responded somehow and only 1 student responded No.

# END OF PROJECT ANALYSIS

## OVERALL EXPERIENCE

Here we explored the overall experience with the Jovia training, and how likely they are to recommend the program to others, 22 students responded with number 5 which indicates that they liked the program and they are going to recommend it to others, 4 students responded with number 4 and 2 students responded with number 3, whereby 1 stand for not likely with 5 stand for highly recommended.

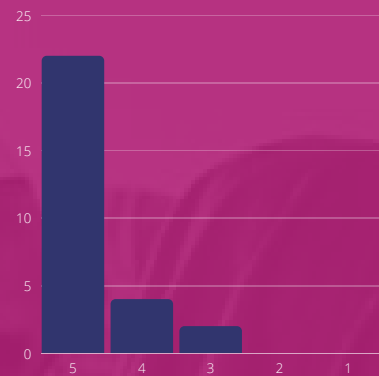


Fig 8.2: Overall Experience

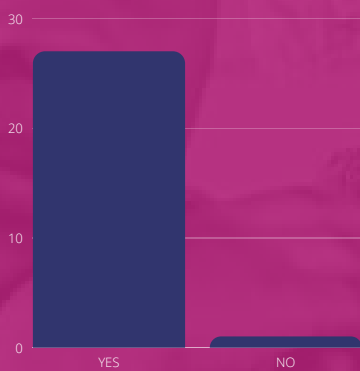


Fig 8.3: Mentorship Commitment

## MENTORSHIP COMMITMENT

Here we explored the students if they would like to proceed with mentorship/incubation programs after the end of the training program. 27 students were willing and they would like to continue with the mentorship program after the end of the training program and only 1 student was not ready.

## ASSESSMENTS

Here we explored the students if they would prefer to get more frequent assessments, 82% of the students were willing to get more frequent assessments while 18% didn't want to get more frequent assessments.

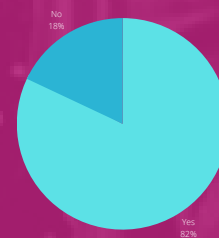


Fig 8.4: Assessments

## RECOMENDATIONS

Below are recommendations that have been drawn from the survey findings based on the responses provided by respondents by regarding the skills they acquired and how the program impacted their life

One student said, "We should be allowed to repeat the course to the next cohort if we need more practice or if we are not competent especially the mobile development course"

Some students were living in areas where internet connection was a problem and or they had no money for internet, so it wasn't possible for them to attend online mentorship, and some were from outside Dar es Salaam attending physical mentorship also was not easy for them.

# ACHIEVEMENTS

## RECRUITMENT (STUDENTS & STAFF)

Nine staff were hired to assist with the project's implementation in Dar es Salaam and Morogoro. For student recruitment, The Dar es Salaam Hub accepted 35 girls from a pool of 166 applicants, and the Morogoro Hub accepted 41 girls from a pool of 104 applicants, resulting in 53 program graduates from both regions. Calls for applications were made both online and offline for both cohorts.

## THE HUB'S ESTABLISHMENT AND FURNISHING

The Morogoro Hub was established and furnished with computers and other equipment necessary to support the training through a partnership with the office of the District Commissioner of Mvomero district in Morogoro, and with the huge interest and support from her team. The Hub can house up to 25 students.

## FURTHER EDUCATION

Six trainees are currently furthering their education at different academic levels (certificate and diploma) in various institutions, with the majority pursuing education in the field of ICT.

## IMPLEMENTATION OF THE IT & ENTREPRENEURSHIP TRAINING

Successful implementation of the IT and entrepreneurship skills training program, with students in Dar es Salaam and Morogoro receiving 400 hours of advanced IT training and 100 hours of high-quality entrepreneurship training. To date, 53 students (28 from Dar es Salaam and 25 from Morogoro) have completed the training.

## INCUBATION & MENTORSHIP

Successfully provided mentorship and incubation offline and online via Code Galaxy to girls and young women in Dar es Salaam and Morogoro. Resulting of 30 project ideas being created, 5 were able to proceed with mentorship to nurture their startups.

## JOBS

8 trainees from the Dar es Salaam Hub and 4 trainees from Mvomero Hub were able to secure jobs. This has been possible because of the skills and experience they have acquired during the training and mentorship period.

# PROJECT IN NUMBERS

**270**

APPLICATIONS  
RECEIVED

**170**

GIRLS  
SHORTLISTED

**53**

GIRLS  
TRAINED

**76**

GIRLS  
SELECTED

**30**

BUSINESS IDEAS  
GENERATED

**06**

GIRLS PERSUADING  
FURTHER EDUCATION  
IN ICT FIELD

**28**

INCUBATED  
IDEAS

**12**

GIRLS SECURED  
JOB POSITIONS



**ESTHER MAZULA**

“ I scored a division 1 in my final form four exams, but I was unable to continue with studies because my parents were unable to financially support my education. I had given up all hope and believed that my dreams had come to an end. The Jovia program provided me with advanced IT and entrepreneurship training, and as a result, I was able to get a job at a large stationery company and, later, at an insurance company right after the program ended. I am overjoyed that my life has changed and that I now have many opportunities to support my family financially.

My next step is to go back to school so that I can learn more about technology, through the Jovia program I now understand the importance of 'creating a digital generation', "I strongly recommend this program to other girls so that they can gain new skills and improve their lives.

Esther Estomih Mazula was a Jovia student from Dar es Salaam Hub. She was particularly interested in graphic design and entrepreneurship training. She is currently employed as a Branch Agent at Bumaco Insurance Agency in Dar es Salaam.



**JEMIMA ANTHONY**

“ My name is Jemima Antony, A while back I was in the Jovia Program, During the program, I was able to acquire knowledge on the Programming language (HTML, CSS, JAVASCRIPT, GITHUB, NODE JS, MONGO DB, REACT NATIVE), graphics Design and Entrepreneurship Skills, The lessons I learned from this program were the ones that sparked my interest in technology and inspired me to pursue a career as a programmer. During the six months of the program, I was able to develop a business idea and learn how to use technology to benefit my community. I am currently in college pursuing a Certificate in Information Communication Technology in order to broaden my knowledge of coding and other aspects of technology.

# IMPACT STORIES

After completing my form four national exams, I joined different ventures and organizations so I could learn more about journalism since I was very interested in the study of journalism. I was able to work for MYCN and Coconut radio in Zanzibar while waiting for the national exam results. Unfortunately, my form four results were unsatisfactory, I then had to find other alternatives to continue with my education hence I enrolled in a college to pursue a certificate in teaching for pre and primary schools but due to financial problems, I was unable to complete my certificate. When I first heard about the Jovia program from my teacher, I was intrigued by the courses that were available because Before the Jovia program, I had given up all hope and I thought it was the end of all of my dreams. But through this program, my perspective has changed completely from the Entrepreneurship and mentorship sessions I had, which helped me to come out with my own business as I was able to open a Daycare center at Kigamboni Dar es salaam.



“

Evergreen Daycare is a place where children can engage in active communication with one another while making meaningful connections and strengthening their language skills. I currently have ten kids, but I hope that as time passes, I will be able to advertise it through social medias using the knowledge I gained from the graphics and business entrepreneurship sessions during the Jovia program. I would recommend this program to other girls because it has helped me improve my life.

**MUNIRA H. MANENO**

# TESTIMONIES



Happiness Yusuph, a hearing-impaired girl from Dakawa, Morogoro, was unable to continue with advanced or higher-level education due to family financial issues and became a tailor in order to support her family. She heard about the Jovia program from the Mvomero District Social Welfare Department and decided to participate, believing that the tech-entrepreneurship training would be beneficial to her life.



**HAPPY YUSUPH**

“ When I failed my O-Level exams, I lost all hope and thought that my life would never get any better, but the technology and entrepreneurship knowledge I gained from Apps and Girls made me realize that I can add value and change my life situation and my community's, the program gave me the experience of turning challenges into opportunities and enabled me to dive deep on challenges that I and other children face in school and come up with a solution which tries to reduce and eliminate the drawbacks which led to academic poor performance. I sincerely encourage many more girls to participate in this program because it will help them improve their lives and the communities in which they live.

Happiness wishes to continue her education if given the opportunity, and as Apps and Girls, we are proud to say that Happiness is one of the brightest girls in this cohort, with a lot of potential.

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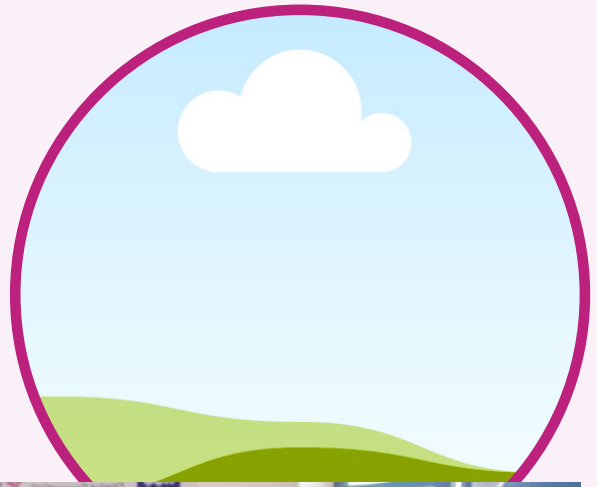
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# TESTIMONIES

"I decided to learn how to sew women's clothes so that I could start my small tailoring business, which would help me financially and support my family after experiencing some difficulties when I wanted to continue with my advanced level education, and it had always been my dream to excel in education and get a formal job to support me, but I failed. But then I heard about the Jovia program from a friend who was



develop MKULIMACARE, which assists farmers by training them in modern farming techniques, their business rights, finding markets, meeting with buyers of the products they grow, and assisting them in selling their produce at a legitimate price set by a government.

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**ENNY MSAMBULA**

“

I come from a predominantly agricultural community, so the design thinking training enabled me to go back and do research on the challenges my community faces and integrate technology to develop MKULIMACARE, which assists farmers by training them in modern farming techniques, their business rights, finding markets, meeting with buyers of the products they grow, and assisting them in selling their produce at a legitimate price set by a government.

And, I can now call myself a graphic designer because I can create different graphics designs like posters and logo. I am so grateful for the tech-entrepreneurship training that Apps and Girls offer to young women like us; I wish that every girl in my community could pass through your hands because you help us succeed in life."

# TESTIMONIES

My name is Nanyori Daudi. I was in the Jovia Program, Dar es Salaam Hub.

I am grateful to Apps and Girls through the Jovia program, as the knowledge and skills I gained from the course enabled me to obtain employment. I was hired as a secretary immediately after finishing the training, and I was in charge of company data analysis, which was something I had never done before.



## NANYORI DAUD

This program has changed my life and improved my self-esteem. I would unquestionably recommend this program to others particularly my fellow young girls.

“ I am currently enrolled in college to pursue a Diploma in Information Communication Technology while working as a graphic designer for various clients and earning money.



Nanyori demonstrating her portfolio (<https://nanyori.github.io/portfolio>) during graduation

# CHALLENGES



The majority of the trainees had been out of school for one to three years, it was difficult for them to adjust to the classroom environment at first. As a result, more hours of training and practice were required, extending the training hours.



Language barrier: The Advanced IT and entrepreneurship training is in English and some of the students (Especially in Mvomero, Morogoro) are not competent in the language & required Swahili translations therefore lessons took more time to be taught. Due to that, we recognized a need to further simplify all teaching materials by reducing the number of modules in order for the girls to have a better comprehension of training based on the observed nature of Mvomero, the training period, and the education level of students to help them improve their understanding.



There was a big number of qualified applicants outside Dar es Salaam/Morogoro whom we could not accommodate considering the resources available. The demand was very high and most of the interested applicants were from far outside Dar es Salaam and other regions, but they missed the chance to join the program since they could not afford accommodation and transport.



Inconsistency attendance of students as some of them needed support for the transport which affected their learning and full participation.



Students dropping out from the program (especially in Mvomero, Morogoro) because they are used to a short-termed program that pays them, hence found difficulties on the Jovia program because it did not meet their normal expectations.



COVID 19 Pandemic: This resulted in a significant delay in the start of the program in Mvomero. The program was supposed to be implemented in two regions, Dar es Salaam and Pemba, but due to the COVID-19 pandemic, it had to be postponed in Pemba indefinitely. Instead, Iringa was supposed to take over for Pemba in May 2021, but due to the low number of responses from applicants, we were unable to proceed with the program's establishment. As a result, Mvomero, Morogoro was the last option, requiring an additional five (5) months to effectively implement the project as planned.

# RECOMMENDATIONS

## Project Training Period

We discovered most of the students did not have prior knowledge about computers thus required a pre-training course that increased the number of training hours than previously anticipated. Introduced skills assessment section in the recruitment application form so as to capture any skills gaps and training needs so as not to affect the planned training plan. This will help us to identify new participants' needs and adjust the project and training plan where necessary on time.

## Program Success Attributes

Based on the program analysis we conducted, 80% of the participants are from very poor families and participate in contributing to the family income or well-being. For the training program to be successful and reduce attribution rates, the training hours must be kept short to give the trainees more time to support their families and themselves. Otherwise, they will need living allowances in order to keep them in their families.

## Incorporating SRH Program

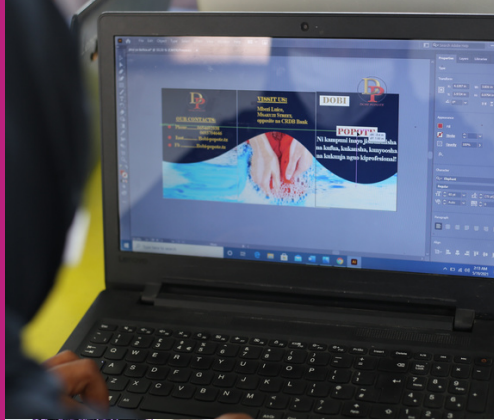
Based on the survey we conducted, 70% of the trainees are young wives and have kids, Introducing SRH Sessions to the program will contribute to the improvement of their health, reducing early marriages but also planning their families and careers for years ahead.

## Program Certification

It is paramount to acquire a formal program certification from VETA (Vocational Educational and Training Authority) this would entail; certifying our curriculum so that the graduated get certified certificated that are acceptable and recognized countrywide thus increasing their employability and also facilitating easy and strategically roll out the program in different institutions across the country for example in IPOSA centers, VETA centers, and other reputable organizations.



# IN PICTURES





# SPECIAL THANKS

to our sponsors and partners for their dedication and commitment to investing in girls and young women as future leaders and decision-makers bringing change in Africa.



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