camara education Tanzania

ANNUAL REPORT

20 21

Our progress Towards Improving educational outcomes using technology.

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Country Manager's Message

I want to start with an expression of sincere thanks to every one of you, our staff, board, donors, partners, and beneficiaries. Your support and collaboration have never been more appreciated than during these dynamic times. The year 2021 was great for Camara, it was a year of resilience, reflection, and recovery from the Covid-19 pandemic.

We have achieved significant results by successfully implementing 5 projects which impacted 3,432 learners from 64 schools, equipping them with 411 ICT equipment. On top of that, we have developed e-learning resources for teachers and educational NGOs for scaling the use of technology in improving literacy and numeracy through KitKit school.

As great as last year was for our company, in many ways 2022 is shaping up to be even better. This year, Camara Education Tanzania will be celebrating its 10th anniversary since Camara first opened its Tanzania hub on 13th Sep 2021. We have secured funds for providing maintenance to 50 schools and refresher training for 300 teachers, as well as hiring three talented staff who have been working as volunteers for the past 6 months.

None of this could have been accomplished without the dedication and commitment of our staff, donors, partners, beneficiaries, and board of directors. I want to personally thank you all for making our work possible during these challenging times. I look forward to working with you to scale and sustain education programs.

Dayani Mbowe
Camara Education Tanzania

Organization Overview

Camara Education Tanzania is a social enterprise dedicated to delivering real impact through technology by empowering young generations to improve their own life opportunities. Camara Education Tanzania(CTZ) was established as a Non-government organization (NGO) in 2012, under the registration number 00NGO/00006076. Camara Education Tanzania is a part of an international NGO (Camara Education Ltd) established in 2005 in Dublin, Ireland with a network of educational hubs in Kenya, Lesotho, Zambia and Ethiopia and Ireland.

Our Values

- **Committed**

We deliver results.

- **Caring**

We care for our people and those we serve.

- **Collaborative**

We achieve more by working together

- **Creative**

We innovate to solve problems

Mission & Vision
Our **mission** is to transform education using technology to empower disadvantaged students. Our **vision** is a world-class technology-enabled education accessible to all.

Our Founding Beliefs

We believe that quality education and youth empowerment are the greatest tools to alleviate poverty. Thus, we aim to use technology to improve educational outcomes and empower the young generation to improve their own life opportunities. Our founding beliefs are:

- Poverty is unacceptable in the 21st century.
- Education is the key to alleviating poverty.
- Technology has the ability to radically improve education

2021 Overview

- We scaled the KitKit project by developing learning resources for teachers and organizations implementing KitKit and supported two organizations to pilot KitKit in 3 schools.
- The first container since the Covid-19 outbreak arrived from our HQ in Ireland with 540 computers.
- We launched a new program (ICT Club) for enhancing ICT skills in sec schools.
- We completed the development of curriculum-aligned resources for sec schools and are now ready for review by the Tanzania Institute of Education

Emerging stronger from the COVID-19 pandemic which forced us to reduce our staff size by half, 2021 has been a year of hope, recovery, and reflection.

- With the help of our headquarters, we secured funding for conducting maintenance, upgrade, refresher training and technical support to fifty former schools.
- We have revamped the custom image we install in computers to enhance the quality of learning resources we offer to schools.
- We forged 3 new partnerships (1 global and 2 local) which resulted in the implementation of two small projects impacting over 200 students.
- Lastly, but not least, we were lucky enough to be joined by three energetic and talented interns who are promoted to full-time staff in Jan 2022.

2021 Covarage

- **23 Schools**
- **7 Regions**

05

Successful projects implemented in 2021.

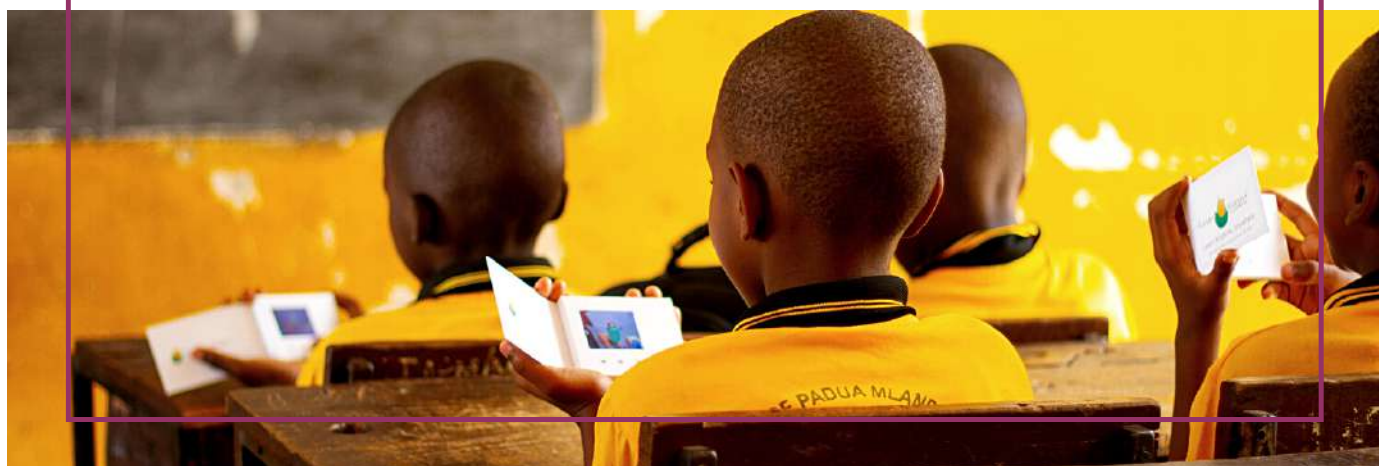# Projects Update

Implemented Projects in 2021

Potter Tech

Learn Kernel

This project is funded by Portal Technology and implemented in St Anthony of Padua Pre and Primary school in Mlandizi - Pwani Region. This project aims to pilot the use of Learn Kernel, a low-cost tablet-like device, in improving teaching and learning. Under this pilot project, the school will receive 75 Learn Kernel devices loaded with education learning videos, teacher training and support for four months from October 2021 to Feb 2022.

Five teachers from this school were trained on using the Learn Kernel devices in the classroom and developed their understanding of the benefits of integrating technology into teaching and learning. Following the project launch, Camara visited the schools once a week to support teachers on their usage and support any challenges they have faced. Students from class 3 used digital devices while learning science subjects on selected topics, which had relevant content loaded to support their learning.

"Improved Learn Kernel devices will be very useful with our schools since most schools face a challenge of absentee, this is because don't have things to motivate students such as this device." — **Deogratus (Teacher), St Anthony of Padua Pre & Primary School, Kibaha.**

Botnar Project

In 2021, the project co-designed the digital solution with students and engage stakeholders for incorporating their inputs on how to improve the proposed solution.

This project aims to use technology to address mental health challenges facing students in four Camara-served schools in Morogoro and Mwanza regions. Camara Education Tanzania is working with the Tanzania Training Centre for International Health (TTCIH) from Morogoro as implementing partners in Tanzania, while Vietnam National University is the implementing partner in Vietnam. The project is funded by Botnar Foundation and is being led by Overseas Development Initiative (ODI) from the UK.

Currently, we are in the implementation phase where students are utilizing digital and non-digital solutions and Camara provides technical support and data collection until Nov 2022. The final evaluation and dissemination of project findings will be implemented between Dec 2022 and March 2023 when the project will end.

The project is being implemented in Sua Sec School and Mhovu Primary School in Morogoro while in Mwanza the project is implemented in Nyamagana Primary School and Magu Sec School. In each of these schools, our digital solution is being utilized by adolescents once a week, and we collect anonymous data from the solution such as usage time, content accessed, logins and user feedback.

"Back then if you messed up with me, you will be in big trouble, and we might even get into a serious fight" ......

But

"I have changed a lot nowadays. I have become a better person, not perfectly, but at least better than before".
(An interesting story from an adolescent boy, SUA Secondary School, Morogoro)

Ready for EdTech: KitKit Resources for Scale

KitKit is a tablet-based learning solution for lower-grade children focused on improving literacy, numeracy, and digital skills for lower-grade learners. In 2020, we implemented a pilot project funded by KOICA Korea and implemented in Twiga primary school for students in grades one to three.

Between May and July 2021, we developed multiple resources that will enable easier implementation for future scale-ups. These resources are also available for other partners to adopt for KitKit School projects. Some developed resources are videos, teachers' training manuals, technical guides and stakeholders' engagement plans.

Using the above resources, Camara is providing training and support to other organizations and schools in Tanzania that are conducting KitKit School projects. All these resources are freely available for anyone to learn and practice.

9 Modules with 20 Hrs of Training

41 Quiz, Assessment & Practical Activities

80 Recorded & Animated Videos

77 Additional Learning Resources (PPT, PDF etc)

Discover Learning

Discover Learning is an innovative research project designed by the Centre for the Developing Adolescent at UC Berkeley University. This project aims to provide new insights into early intervention opportunities for improving the life trajectories of adolescents in Tanzania, and how to leverage these scientific insights and translate them into an intervention strategy.

Camara was a technology partner for the project, responsible for providing all hardware and software needed for project implementation. As a technology partner, our role was to provide technical support for the project for two years. From the design of android apps to the use of tablets and projectors in the classroom to the use of WhatsApp chatbots and USSD short code, our role was to deliver appropriate tech solutions to support the project implementation.

The project was formally closed in 2021 after final data collection and evaluation to reflect on the learning generated by the project for the past four years; with specific emphasis on how the project was adapted to the Covid-19 context and prioritizes addressing the needs of our youth and families.

Tech-based engagement increased parents' and students' engagement. We made a lot of changes in a very short time to cope with COVID-19 challenges, but we didn't make enough early testing about our assumptions and new solutions.

All things considered, technology is a versatile and valuable tool for learning, and it is becoming a way of life it is, therefore, a time of great possibility and progress for the use of technology in learning.

> **EdTech learning experiences tap into natural curiosity, motivation, and willingness to explore, and provide positive opportunities to help youth adapt successfully to the increasing influence of technology in the world around them.**

Although Discover learning's goal is to promote Social-emotional learning which develops a respectful and responsible use of technology, the presence of technology in year 4 did not ensure equity and accessibility in learning.

This was due to some parents not having access to smartphones and students not having access to TV which pose challenges in accessing digital content during the pandemic.

Twiga KitKit Project

Since the pilot ended in Dec 2020, Camara continues to support the school and ensure the school can continue to utilize KitKit for improved literacy and numeracy skills.

In 2021, we engaged parents through the Teachers Parents Partnership to ensure they understand the value of KitKit for their kids and take ownership of the project and how they could support teachers and the school.

On top of that, a representative from President's Office, Regional Administration and Local Government Tanzania (PO-RALG) visited Twiga primary school to inspect the project's progress.

Teachers are conducting three Kitkit sessions every week with grades 1, 2 and 3 for 30 min targeting 50 students from each class with the lowest literacy and numeracy level.

He had a chance to meet with trained teachers, and school administration and observed a class session where students demonstrated how they were using KitKit tablets to improve their literacy & numeracy skills.

After observing ongoing KitKit School sessions, which were independently implemented by the school and interviewing teachers and students, PO-RALG recognized the feasibility and sustainability of the project and offered advice on further increasing parental engagement. PO-RALG also invited Camara to present their pilot results at the Tanzanian education sector stakeholders meeting.

We have also distributed the KitKit impact report to different NGOs, Government Organizations and International agencies found in Tanzania. We aim to share the experience, knowledge, and learning and support other organizations to adopt KitKit and improve literacy & numeracy.

Technical Support

Apart from implementing the above projects; we provided technical support to our partners implementing edTech projects through the provision of training, supply of ICT equipment such as tablets, desktops, and projectors and installation, configuration and maintenance of equipment and systems for their edTech projects.

Not only do we provide support to partner organizations, but we also provided free maintenance to some of our former schools in Dar es Salaam, which included software upgrades and student awareness training. The paragraph below describes some technical support work we did in 2021.

KitKit Training	Enaboishu Eng Medium	School Maintenance
We provided KitKit training to **So They Can** staff in Tanzania and Kenya for implementing KitKit in two schools.	We supplied 50 tablets, storage unit with charging system and other ICT equipment.	Seven public schools in Dar es Salaam received free maintenance for their computer lab.
This was followed by remote tech support and virtual training during project implementation	We worked with our partners **CASEE** to provide training to 6 teachers on how to implement KitKit.	We also upgraded their OS image and loaded more educational resources to their computers.
So They Can implement KitKit in 2 public primary schools in Babati (Endamagai and Endanoga)	We also shared KitKit digital learning resources with teachers for them to use in	This was followed by awareness training to students on how to utilize offline learning resources loaded on their computers.

Events & Partnership

Events

We have organized several events and participated in several others organized by our partners and stakeholders. These events aim to raise awareness, educate and engage stakeholders at different levels for better integration of ICT in teaching and learning. Below are three major events we have organised in 2021.

International Education Day

Commemorating International Education Day. Key event details:

- Conducted at Twiga Primary School
- 50 students from grade three
- Competition in reading, arithmetic and drawing using KitKit Tablet
- The best students were awarded exercise books and pencils.

Girls ICT Day

Commemorating International Girls in ICT Day. Key event details:

- Conducted at Kibasila Sec School.
- 20 students from ICT club (form 2, 3 & 4)
- Pitching ideas on how ICT can help improve their learning experience.
- The best students were awarded exercise books and pencils.

Teachers Parents Partnership

Commemorating International Girls in ICT Day. Key event details:

- Conducted at Twiga primary school
- 21 parents from Temeke District participated.
- Pitching ideas on how KitKit can help improve students in their learning experience.
- Twiga Teachers were involved.

2021 Partnerships

We believe in the power of partnership and collaboration. We firmly believe that each organization has its own potency and none of us is as smart as all of us. Alone we can do so little; together we can do so much.

TEDI Tanzania

We have partnered with TEDI Tanzania for implementing the **One Computer Lab and One School** initiative led by TEDI.

We have successfully installed our first computer lab at Chanzige Sec School in Kisarawe and conducted training for 7 teachers and more than 50 students.

Tai Tanzania

We partnered with Tai Tanzania in March 2021 for distributing their animation to our schools.

These animations aim to inspire social behavioural change by positively influencing youth on different topics from health and hygiene to gender issues.

New Products
& Programs

ICT Club

ICT Club session at Kibasila Sec School.

ICT club program was launched in early 2021 aiming at preparing future Techpreneurs and Socialpreneur. ICT Clubs will inspire secondary school youth and equip them with the skills and knowledge necessary for pursuing their career in technology.

Over the years we have learned that students in most schools are not acquiring adequate ICT skills despite having ICT resources within their school for four years. ICT clubs aim to address this challenge and build a breed of tech-savvy youth for the future of our nation.

In 2021, we launched the program in two schools (Kibasila and Shaaban Robert) where we have weekly 80-min sessions with students. This was our initial pilot in testing the viability and feasibility of this program.

Throughout the year we have made major changes in the program design, session content, delivery, and engagement approach with students and teachers.

With no funding for support for the program, we face a number of challenges for which we have developed some short-term solutions of them while we are still navigating how to overcome them. This has limited our ability to expand the program further by piloting at a much larger scale for developing a full-scale model.

We also worked with our partners Lyra to launch the program in two schools in Iringa, and they are coordinating the pilot for potential scaling it to more of their schools in Iringa.

New Products

Camara offers edtech products and services that help to transform teaching and learning and enhance the integration of technology for improved educational results. We continuously update and upgrade our products and services, while at the same time developing new or adapting existing solutions by working with like-minded partner organisations. Below are some of the products we worked on in 2021.

01. Updated Operating System

We updated our custom OS image with more offline learning resources. These allowed us to better track the usage of apps and other learning resources, as well as ensure we have tools for supporting more subjects.

02. Offline School Portal

Offline repository loaded with more than 5,000 educational videos, books, and articles. Camara Portal manages user access, tracks content utilization and allows educators to add or remove content from the portal.

The portal can synchronize all user data with the Camara Online dashboard, allowing us to remotely track how the school is utilising offline digital learning resources.

03. Ticket Management System

Built from the ground up, this system allows us to improve the quality of technical support we provide to our beneficiaries. From the recording of reported issues to tracking how the reported fault is being handled and resolved. This has been one of the challenges over the years, and the system was built to address this challenge.

Admin & Finance

Admin & Compliance

We have achieved 99% compliance after resolving all pending issues raised by the NGO registrar's office and other government authorities.

Camtech Operations

Our social enterprise arm (Camtech) commenced its full operation in Sept 2021 offering our services to schools and educational institutions at a highly subsidized price. This ensures Camara sustains our operations and enables us to support our former schools.

Audits

Our 2020 audit for both CamTech and Camara was conducted in April 2021 and submitted to Tanzania Revenue Authorities (TRA). This was followed by tax clearance certificate collection. We also renewed business licences for both CamTech and Camara.

NGO Registrar Repots

All quarter reports for 2021 were submitted to the NGO registrar's office as well as our 2020 NGO annual report. Not only that but also relevant project funding contracts for 2021 were submitted for review and approval.

Board Meeting

In 2021, we had 4 ordinary board meetings as per the constitution requirement, In these meetings, the board reviewed performance reports, provided guidance and resolved several matters related to organization operation.
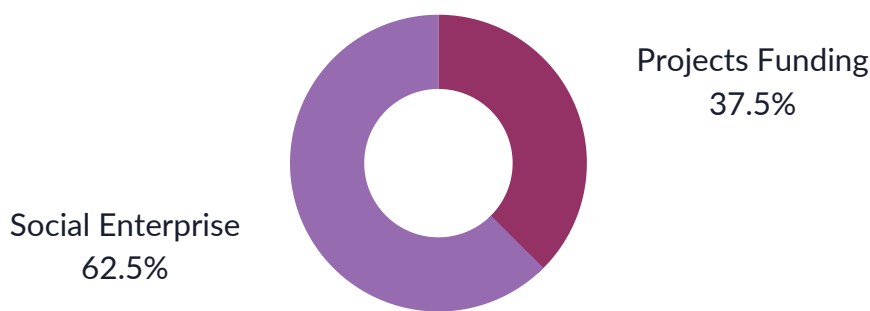
Accounting & Finance

In 2021, our finances were highly impacted by the limited supply of refurbished computers caused by the Covid-19 lockdown and business closure around the world. This limited our ability to meet the needs of the schools we serve, which directly impacted our ability to execute more lab setup projects.
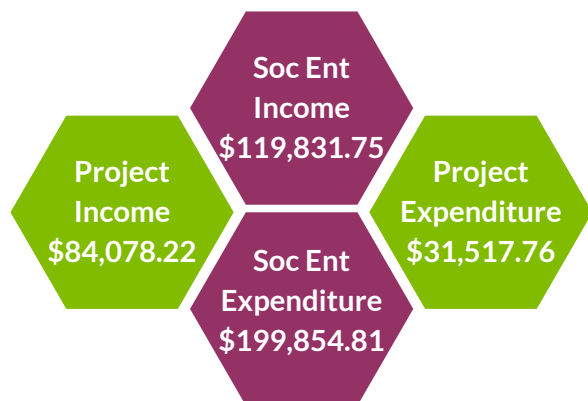
Despite these challenges, the support we received from our headquarters ensured smooth execution of our operations, and we received our first shipment of 540 computers in September 2021 since the last shipment received before the Covid-19 pandemic. Below, graphs and charts summarise our finances for 2021.

Covid-19 lead to disruption in supply chain, high shipping cost which affected our finances.
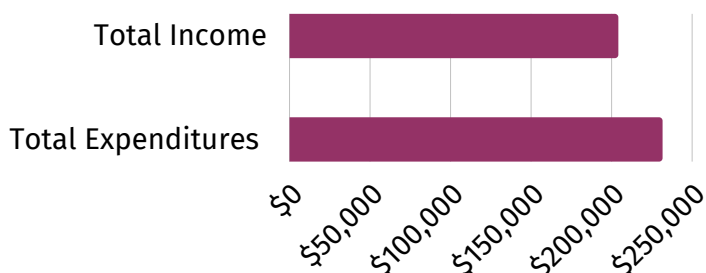
MAIN SOURCES OF INCOME

Projects Funding
37.5%

Social Enterprise
62.5%

PROJECTS & SOCIAL ENTERPRISE

Soc Ent Income
$119,831.75

Project Income
$84,078.22

Project Expenditure
$31,517.76

Soc Ent Expenditure
$199,854.81

Our social enterprise activities contributed about 59% of our total income, despite a 53.73% drop from 2020 income caused by Covid-19 effects. Despite these challenges, our board have been really supportive in ensuring that we can continue to support schools in need with equipment donation, maintenance, and training.

We have maintained our operating expenses to the minimum possible, ensuring the organization smoothly delivers on its mission despite all the challenges.

2021 INCOME vs EXPENDITURE

Total Income

Total Expenditures

$0 $50,000 $100,000 $150,000 $200,000 $250,000

With the new stock of computers and global economic recovery, we are more certain that 2022 will be much better compared to 2021.

IMPACT ASSESSMENT

Monitoring, evaluation, and learning (MEL) is a crucial part of all our projects. The next two pages summarize some MEL activities and testimonials in projects we implemented in 2021.

Monitoring, Evaluation & Learning (MEL)

MEL is not the end goal, but rather the means by which we achieve our program/project outcomes more effectively.

Our monitoring, evaluation, and learning (MEL) activities focus on measuring key performing indicators that we track to assess the effective integration of ICT in teaching and learning; and how this has resulted in expected outcomes and impact for the particular project/intervention.

We ensure that each intervention has clear and concrete performance goals to make it easier to generate relevant, consistent and comparable data over time. Our MEL relay on both qualitative and quantitative data collected over time. The table below summarizes some of the key indicators we used, data collection methods and overall outcomes obtained in 2021.
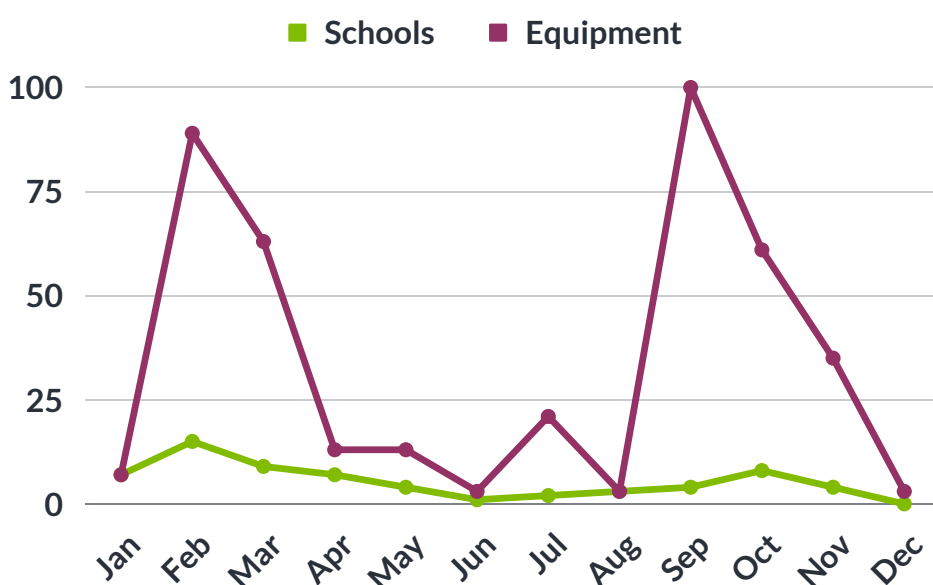
Key Indicator	Activity/Method	Data/Outcome
Computer Usage Time per School	• Qualitative Data Collection • Computer Usage Tracking App	• Feedback from teachers and students on how they are using computers • Reports indicating apps that have been used, time and date for each app
Teachers and Students ICT Skills	• Assessment Before And After Training • Classroom Observations Sessions	• Indication whether ICT skills have improved for teachers or students after training. • How effectively teachers and students are utilizing ICT in a class session
Teachers & Students Attitude toward the Use of ICT	• Training Feedback Forms • Baseline & Endline Assessment	• How their perception on ICT have changed before the intervention/training and after the intervention • How are they planning to further utilize ICT in teaching and learning

We normally conduct baseline, midline and end-line assessments in our projects while tracking overall organization KPIs such as no of learners impacted, no of schools supported, and no of ICT equipment dispatched to schools. Our project MEL helps us to assess the outcome and impact of each specific project based on the intended goals, while our internal KPIs assess how effective we have executed our mission.

Snapshot of Our KPI's

Overall KPI's for Camara Tanzania in 2021

64
Total Schools we worked with in 2021

3,432
Leaners impacted in 2021.

411
Equipment dispatched to different schools.

Apart from assessing how projects and the organization, in general, are achieving their objectives, our MEL also helps us to learn and improve our program delivery. Some of the key lessons we learned from 201 MEL are:

- For improved ICT integration, Students need to be trained on the basics of ICT and how to access offline learning resources loaded on the school computers. This is contrary to our initial focus on teachers only and not training students at all.
- Our MEL needs to rely more on computer usage tracking data collected automatically from each individual PC, as well as learning resource usage tracking done by the classroom server.
- Our MEL needs to be broader by involving different data collection methods for the same group of beneficiaries in order to improve the quality of data that we collect.
- Teachers need to be supported and engaged more than we expected for the effective integration of ICT in teaching and learning.

These are some of the major lessons we learned in 2021, and we aim to use them in improving our program delivery in 2022 and beyond.

70%
70% of teachers who received training in 2021 were highly satisfied.

Testimonials

A word from our 2021 Beneficiaries & Partners

Computer Lab

"Chanzige Sec School Students will be able to acquire digital skills as well as access different digital learning resources and acquire different skills" - *Nickson Simon, District Commissioner, Kisarawe.*

Learn Kernel

I like the device we use to learn as it makes it easy for me to learn, for example, the topic of "Measurement, Personal Hygiene, Balance diet" was really deep in the device —**Alpha from st. Antony of Pandua**

ICT Clubs

"Through Camara ICT club, now I can use MS Office comfortably to prepare and organize different documents. Am glad to get this chance as it inspires me to seek more ICT skills" - **Rukia, Kibasila Sec School**

2022 & Beyond

Covid-19 has exacerbated and highlighted pervasive educational issues. Now, it's time to reimagine our programs, systems, and approaches. In 2022 Camara will review and create a new strategy to guide us for the next three years. On the other hand, our focus for 2022 will be on three key areas, as described below:

Local Funding

Double our local fundraising efforts to ensure we can support more schools and operate more sustainably.

Monitoring, Evaluation & Learning

Enhancing our MEL systems by enhancing our monitoring tools and expanding the use of computer usage tracking.

Supporting our former schools

More support to our former schools and close teachers' engagement through retraining, maintenance, repair, and upgrades.

With support from our staff, board of directors, donors, partners, beneficiaries, and other stakeholders, we aim to impact more learners in 2022 and carry on our mission of transforming education using technology to empower disadvantaged students.

ACKNOWLEDGEMENTS

We would like to acknowledge and thank everyone for supporting our programs and operations in 2021. We are looking forward to further engaging in facilitating the provision of E-learning resources in schools not only during this project but also in all ICT activities in the schools.

Special thanks to:

- All our **donors** and **funders.**
- Our **Headquarters** for support & guidance.
- The **Board** of Camara Education Tanzania.
- School **leaders**, **teachers,** and **students.**
- **Government officials** from all levels and institutions.
- **Volunteers**, **Interns**, and **Staff** for their commitment and hard work.

We thank you for your continued support in our efforts to empower underprivileged youth with technology.

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Real Impact Through Technology

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