

Consultant for troubleshooting and redevelopment of Management Information System

(Mobile Data Collection Project)

1. About the Organisation

Teach A Man To Fish believes that education is the key to tackling global youth unemployment and poverty.

Teach A Man To Fish aims to eradicate poverty by supporting young people in developing countries to develop skills and knowledge for economic empowerment. We support schools, youth groups, NGOs and training centres to establish enterprises - from eggs to grain storage, crafts to a hotel. These enterprises serve both as learning platforms, and as income-generating activities for the organisation, as young people work on the businesses alongside their academic education. In this way, young people learn valuable business and entrepreneurial skills and the school has the ability to raise additional funds in a sustainable way.

For more information on Teach A Man to Fish, our work and impact, please visit www.teachamantofish.org.uk

2. Project Background

Teach A Man To Fish is seeking a consultant to provide management information system support to our team based in Kampala, Uganda. Teach A Man To Fish Uganda currently has a team of 13 staff and 1 Volunteer

Since 2020, Teach A Man To Fish Uganda has been implementing the [School Enterprise Challenge](#) in 20 schools in Mpigi district, targeting 600 learners with the support of 2 lead teachers per school. **The School Enterprise Challenge programme** is Teach A Man To Fish's international programme

Terms of Reference

for schools around the world. This programme guides and supports teachers and students to plan and set up real school businesses that are both educational and profitable. Divided into Bronze, Silver and Gold levels, the progressive framework enables schools to build on their achievements and adopt 'best practices' to increase the impact of their work as they advance in successive years through the levels.

The project in Uganda aims to build robust evidence of the impact of the programme for young people. To this end, we are tracking the change in knowledge and skills of participants in the intervention schools alongside a group of 223 learners from 10 comparison schools.

The project measures change for students in:

- Four life skills (Presenting/Communication, Leadership, Teamwork, Problem-solving) via self-assessment and teacher assessment of learners' skills.
- Business knowledge via a quiz
- Numeracy and literacy skills through a standardised test at the start and end of each academic year and by keeping track of student grades
- Retention/transition in school by keeping track of teacher and school registers and follow-up surveys
- Improved income and other benefits at home
- and aims to understand the level of student participation that results in significant change

We also measure change in teachers skills and abilities via self-assessment and headteacher observation of teachers skills.

A Management Information System (MIS) was developed at the start of the project with the aim to improve the process of data collection while tracking student progress. The system was designed to help us demonstrate that the School Enterprise Challenge has the potential to change young people's lives.

The specific objectives of the MIS system were to:-

- Enable us to collect individual and aggregate participant data for short term studies, (i.e. to find out how our participants do better in school)

Terms of Reference

and also longitudinal studies, (i.e. to find out how participants' skills and attitudes make a difference in terms of continuing in education, getting a decent job, setting up their own profitable business and how this compares with a control group or national averages). We also seek to understand how much time an individual young person needs to spend in our programme to achieve these higher outcomes.

- Create a database of project and participant data that could be readily manipulated to allow analysis for purposes of understanding our results/impact.
- Provide dashboards for monitoring of data collection and dynamic visualisations.
- Allow us to incorporate learnings into ongoing evidence-based programme design
- Underpin our advocacy efforts and drive firm commitment from the government in Uganda to facilitate schools at a national level to participate in our School Enterprise Challenge.
- Promote international support and partnerships to embed our approach for experiential entrepreneurship education widely into other education initiatives

Further, we aimed to have a system that could potentially be rolled out to additional countries and projects.

The system was built using Open Data Kit Collect (ODK) to enable mobile data collection where connectivity is limited (See Diagram 1 and 2 below). Data is collected via 27 tools (forms) on ODK and is cascaded into a database in Google sheets. Data is then pulled into Tableau for dynamic visualisations in order that managers can easily review project and participant progress. The system pilot has been ongoing for a year, however a lot of issues have been encountered which hinder our ability to track performance of the participants across our KPIs.

Terms of Reference

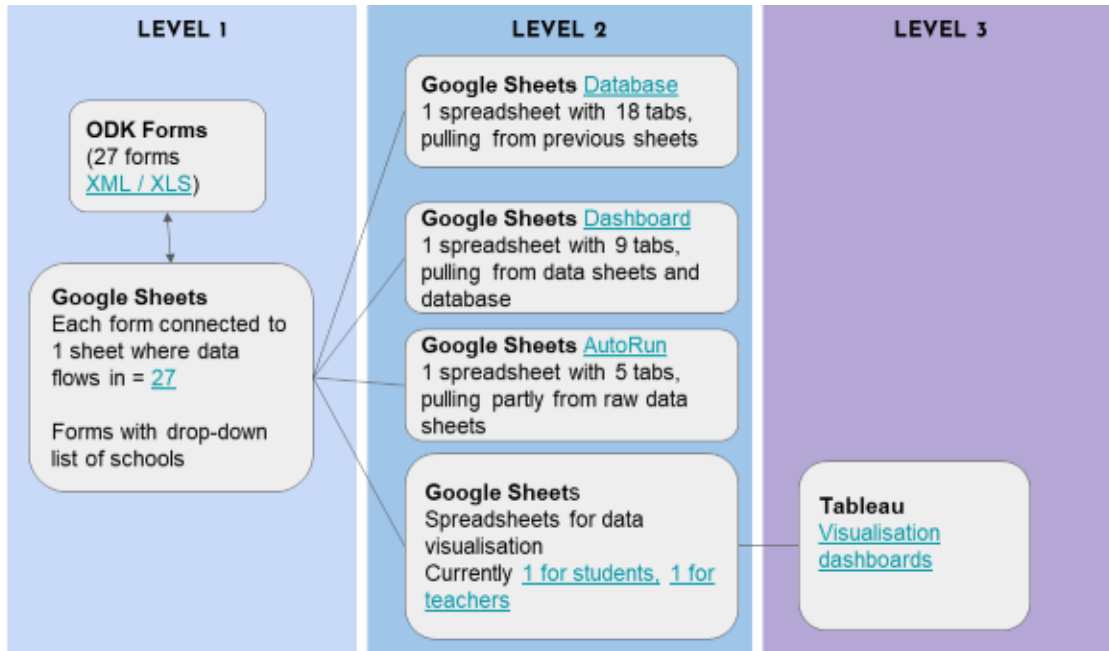


Diagram 1: Current System Data Flow

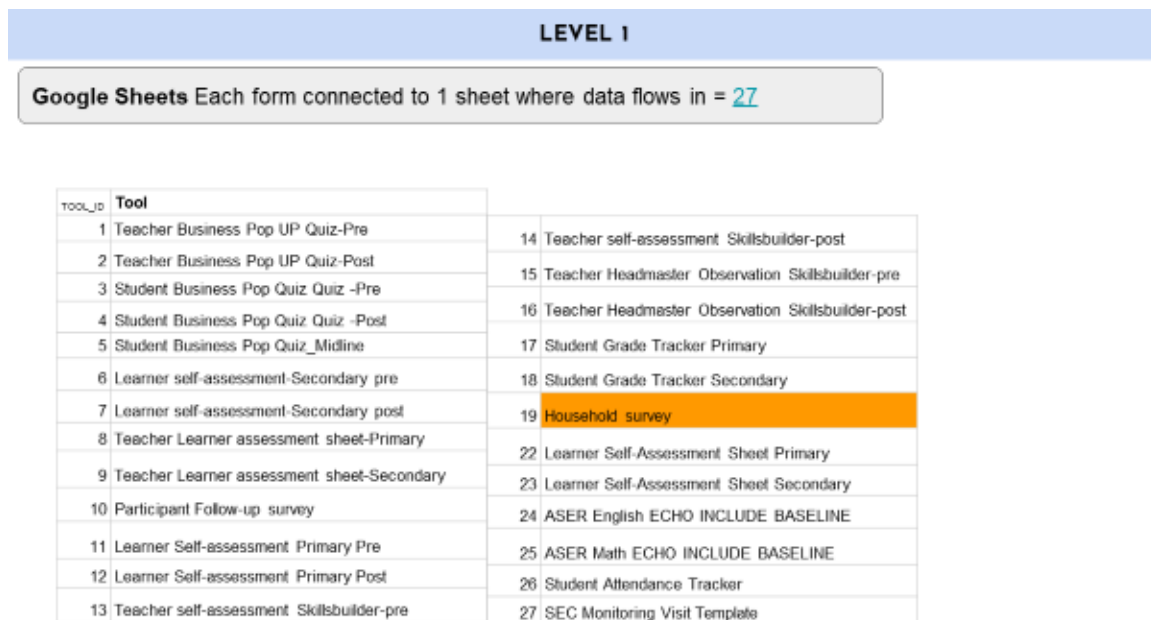


Diagram 2: Our 27 forms in ODK (monitoring tools)

3. Objectives of Consultancy

3.1 Overall Objective

The overall objective of the assignment is to assess and fix the existing Management Information System in order to ensure smooth and accurate data collection and analysis, monitoring and impact evaluation of our programme, in particular the tracking of the individual participation and performance of participants.

3.2 Specific Objectives

- Review current management information system issues and suggest potential IT solutions based on both technical, financial and implementation suitability.
- Fix issues with existing data collection tools on ODK, or set up from new on ODK or a viable alternative, such as KoboCollect.
- Create new and accurate data sets/spreadsheets from data collection tools (currently ODK), that can be readily manipulated for purposes of analysis. Ensure that the baseline data and 2 sets of midline data we have already collected are displaying accurately in the database.
- Create functional dashboards where we can ably see the progress of an individual student from baseline, midline to summative in all the tools.
- Create multiple visualisations from the data as directed by Teach A Man To Fish
- Create automated reports for weekly management reviews.

4. Methodology

Phase 1: Investigate and rectify current issues with the tools. Ensure data from all tools is reporting accurately and fully into a well structured database (where the data can be manipulated). Current issues we are facing:-

1. Incomplete Data sets - Some data is not pulling through from the ODK tools (forms) into Google Sheets. In some cases, rows of data are being skipped, and empty cells are being posted.
2. Incorrect Formulae - in some cases, where scores need to be totalled or triangulated, e.g. for the Teacher Self Assessment SkillsBuilder tool, the script shows the wrong hard coded formula and is not making the correct calculation.

Phase 2: Investigate and rectify issues with dashboards and visualisations.

Current issues we are facing:-

1. Incorrect setup - in some cases, the dashboards have been linked to the wrong data sets, so we are not able to see a clear overview of the progress against our KPIs and individual participant progress.

Phase 3: Capacity Building of systems staff and other users to ease maintenance, management and further rollout.

In order to ensure systematic control and usage by the back end users (our staff), this final stage will involve training of the key staff including data collectors to enable easy maintenance and process management. Staff will also be advised on the steps needed to roll out the MIS to the wider organisation.

5. Timeframe

The consultancy is expected to commence early August 2022 and run for a period of 7 weeks.

6. Deliverables

- A fully functional and secure Management Information System that allows us to track individual participants over 1-5 years and is potentially scalable to other projects and countries where we work. To be fully functional this system will include:-
 - Fully functional tools (forms)
 - New datasets and a complete and accurate database of project and participant data
 - Fully functional dashboards showing individual progress and key visualisations as directed by Teach A Man to Fish requirements
 - Automated reports, e.g. weekly management reports
 - Data from baseline and 2 x midlines published systematically. Summative data also tested and published systematically.
 - Ability to add further data outside the timeframe of this study, which will allow us to follow participating students in “Model” schools after they have moved on from that school.
 - Fully secure data management
- User manual and training for Teach A Man To Fish staff on how to use and operate the new MIS. system and the new data flow.
- Guidelines on system maintenance and how to roll out the MIS across the organisation.

7. Supervision and oversight

The Consultant will be overseen by the Senior Manager - Learning, Impact and Training based in the UK, with day to day management support and guidance by the Uganda Country Director and MEAL Manager Uganda.

8. Budget and payment terms

The **consultant will be required to submit a budget based on the scope of work.** The maximum budget available for the consultancy is £4,000 GBP

Terms of Reference

inclusive of any local taxes. However, Teach a Man To Fish will prioritise proposals that offer the best value for money.

The Consultant is expected to provide her/his own office space and working equipment. We are open to applications from international consultants (working remotely) and local consultants within Uganda. Please note that Teach A Man To Fish does not anticipate the need for international travel for this assignment, nor will this be covered.

This budget should **include consultant day rates (or a job rate) plus all incidental costs including but not limited to related taxes and license fees.**

The payment terms will be finalised with the selected consultant prior to contracting.

9. Profile and Qualification of the Consultant

The consultant will have the following competencies and skills:

- B. Tech in Computer Science or Information Technology and MBA
- At least 5 years progressive work experience in MIS design, implementation and troubleshooting.
- At least 2 years demonstrated experience in using open-source toolkits for data collection and analysis, particularly ODK and KoboCollect.
- Hands on experience of Tableau or other data visualisation tools.
- Strong command of spreadsheets and databases, including Google sheets and Excel.
- Experience in building Management Information Systems for the education sector and/or life skills measurement.
- Ability to analyse complex problems systematically and efficiently. Focuses on critical details while managing a broad perspective. Draws accurate conclusions and makes sound decisions.
- Established track record in delivering high quality outputs within agreed time frame
- Strong communication and client relationship management skills

Terms of Reference

- Excellent English language skills, both written and spoken
- Proven experience in training staff and producing training materials
- Flexibility to work beyond local time zones especially for purposes of coordination with international offices whose time zones differ (UK and Uganda).

10. How to Apply

All submissions should be emailed to sally@teachamantofish.org.uk by **17:00 BST on Friday 5th August 2022**. The subject line of the email should state: **Consultancy Application - Waterloo project**.

Prospective consultants are expected to submit an Expression of Interest, including the following:-

- i. A completed applicant details form (see form 1). (If in Uganda, please include a TIN number).
- ii. Scan of completed, signed declaration form (see form 2). **Applications without a signed, complete declaration form will not be considered.**
- iii. A brief proposal of maximum 5 pages indicating how you will approach the task as outlined.
- iv. Two references from similar work experience, including email contacts and phone numbers. At least 1 of which needs to be an organisation that you have completed work for in the last 12 months.
- v. At least 2 examples of work completed in the last 12 months. If you are unable to provide this a clear explanation as to why must be provided.
- vi. A budget for delivery of the project as outlined.
- vii. CVs of the consultant(s) that will be responsible.

Please note that due to the large volume of applications anticipated, we will only be able to respond to successful applicants.

Form 1 - Applicant Details Form

Organisations should complete form A. Individuals should complete form B

Applicant Form A - Organisation		
Name		
Organisation Name		
Address		
Registration Number		
Telephone		
E-mail address		
Website address		
Year Established		
Legal Form. Tick the relevant box	<input type="checkbox"/> Company <input type="checkbox"/> Partnership <input type="checkbox"/> Joint Venture	<input type="checkbox"/> NGO <input type="checkbox"/> Other (specify):
VAT Number (where applicable)		
Tax identification number		
NGO registration number (where applicable)		
Director(s) names and titles		
Please state name of any other persons/organisations (except tenderer) who will benefit from this contract.		
Parent company (if applicable)		



Terms of Reference

Do you have associated companies? Tick relevant box. If YES - provide details for each company in the form of additional tables in this format.

Yes

No

Terms of Reference

Applicant Form B - Individual	
Name	
Address	
Telephone	
E-mail address	
Website address	
Tax identification number	
Please state name of any other persons/organisations (except tenderer) who will benefit from this contract	
Please provide details of any current employment or directorships held	

Terms of Reference**Form 2 - Applicant Declaration**

By signing this statement, I declare:

- 1) The bidder is not bankrupt or is being wound up, neither are its affairs are being administered by the court nor has entered into an arrangement with creditors or has suspended business activities or is in any analogous situation arising from a similar procedure under national laws and regulation.
- 2) The bidder is not the subject of proceedings for a declaration of bankruptcy, for an order for compulsory winding up or administration by the court or for an arrangement with creditors or of any other similar proceedings under national laws and regulations.
- 3) Neither the bidder, a Director or Partner, has been convicted of an offence concerning his professional conduct by a judgement which has the force of res judicata nor been guilty of grave professional misconduct in the course of their business.
- 4) The bidder has fulfilled all its obligations relating to the payment of taxes or social security contributions the state or country in which the tenderer is located or doing business.
- 5) The bidder has a child protection policy who's standards he adheres to and never been charged with any child protection issue
- 6) Neither the bidder, a Director or Partner has been found guilty of: fraud, money laundering, corruption; convicted of being a member of a criminal organisation; nor of serious misrepresentation in providing information to a public buying agency
- 7) The proposed budget provided is accurate and contains the full costs that will be charged for delivery of the work proposed
- 8) I am willing to sign and abide by the terms of the Teach A Man To Fish Child Protection Policy and apply this to all staff engaged in the evaluation
- 9) I have the authority to sign on behalf of the company that is bidding



Terms of Reference

Name:

Position:

Company Name (if relevant):

Signature:

Date: