Rapid Guide to Mobile Data Collection

When planning a survey, we can collect the required data either by using **paper** questionnaires, **tablets or smartphones** or also less frequently with **on-line** surveys. Since the target populations of most relief and development interventions have limited access to the Internet, we usually decide between the first two options. This guide introduces you to the possibilities and (dis)advantages of using tablets or smartphones.

There are many providers of platforms or systems for **mobile data collection**. Many relief and development agencies use **KoBo Toolbox**, a free open-source tool for mobile data collection. It allows data to be collected in the field using mobile devices such as mobile phones or tablets, as well as with paper or computers. The adaptation of KoBo Toolbox for humanitarian use is a joint initiative between OCHA, Harvard Humanitarian Initiative and the International Rescue Committee. KoBo help with the questionnaire design, data collection as well as analysis.

The KoBo Toolbox is fully compatible and interchangeable with the other open-source system **Open Data Kit** (ODK) and also offers other functions such as a form-builder, question libraries and integrated data management. It also integrates other open-source ODK-based developments such as formhub and Enketo.

Data Security: If you use the free KoBo database, the data uploaded can theoretically be accessed only by the server administrators, otherwise it is protected by your login and password. If you want to strengthen your data security, you can either encrypt the data on a tablet/phone or install an instance of KoBoToolbox on your own server.

Programming Questionnaire: In order to use KoBo or ODK you have to develop a compatible questionnaire. For both systems, you can prepare a questionnaire in XLS following a standardized 'program' language, or in the case of KoBo use an on-line, intuitive questionnaire builder.

Advantages of the mobile data collection:

- Time-Saving: The data does not need to be transcribed from paper to computer before it can be analysed.
- Accuracy: Enumeration errors are minimized because the data validation can occur as data is entered. Transcription errors are entirely eliminated. Conditional questions can be programmed automatically.
- Easy to Use: It requires no technical knowledge to use and enumerators can be trained within a short period, saving scarce time and human resources.
- Budget and Logistics Savings: Once you make the initial investment, you save money on printing, logistics and time required for data transcription.
- Multi-Media Options: Beside the usual types of questions (e.g. one-option, multiple-option, open…), the data collectors can also take and show pictures, videos, audios or record GPS coordinates.
- Multiple-Language Options: When different language versions are developed, they can easily be switched from one to another, according to the specific needs of people involved in the survey.
- Easier Analysis: The KoBo system offers an on-line analytic module for basic data analysis.

Disadvantages of the mobile data collection:

- Initial Costs: You must initially invest in the purchase of several mobile devices – either smartphones or tablets. The number depends on how many data collectors your surveys usually use at a time.
- Less Suitable for Qualitative Methodology: Although offering an open-question and audio module, it is slower when entering information on small devices and less flexible (for example, during in-depth interviews when questions are sometimes adjusted to the context of an interview).
- Dependent on Charging: The battery life of the device can be an issue if there is no reliable option for charging it in the field. This can be solved with extra batteries for the devices, external batteries, solar chargers, etc.
- Loss or Robbery: An electronic device is a valuable item in developing countries and it could be lost or stolen before the data is uploaded to the database, resulting in a loss of the data which was not backed up.

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Published by: **People in Need (2017)** | Author: Petr Schmied | indikit@peopleinneed.cz | www.indikit.net