



Sustaining and Scaling School Water, Sanitation, and Hygiene Plus Community Impact



Educational Management Information System (EMIS) Trial SWASH+ Phase II

Background

The first phase (2006-2011) of SWASH+ (Sustaining and Scaling School Water, Sanitation and Hygiene, Plus Community Impact) was an action-research and advocacy project focused on measuring the impact of WASH interventions in primary schools in western Kenya, with the goal of seeking increased investment on the basis of the results. The second phase (2012-2016) of SWASH+ was designed to improve the sustainability and effectiveness of school WASH at scale in order to support the government of Kenya's comprehensive school health policy.

Three barriers to sustainability and effectiveness were identified at the start of the second phase: decision-makers' lack of (1) access to high-quality data on the status of school WASH; (2) information on school WASH life-cycle costs; and (3) knowledge of how to improve school WASH governance and accountability. Multiple studies were initiated to address these barriers and to improve learnings for the government of Kenya. One study, explained here, is the Educational Management Information System (EMIS) trial.

The Intervention

EMIS in Kenya has two main challenges: Data is self-reported, with little opportunity for validation, and it is collected on paper and must be physically sent to the main office for entry into the electronic database. This survey usually has 30 to 40 percent submission rates, with surveys collected weeks or months after being issued. Delayed analysis and dissemination of findings

back to schools substantially limits the usefulness of the collected data. The EMIS trial tested a mobile phone-based survey called *Mobenzi Researcher*, which reduces these challenges by collecting and transmitting the data electronically, with built-in validation checks. The survey data is received instantly by the Ministry of Education when connected to the network.

The trial was implemented in 120 schools across three counties — Kilifi, Kisumu and Nyeri — with half of the schools in each county remotely located. Head teachers and deputy head teachers were trained on how to use *Mobenzi Researcher*. Half of the 120 schools were randomly selected to receive daily reminders via text message that encouraged them to complete and submit the survey once the two-week window for completion began.

"Once you send the data, it will never get lost. It's direct to Joko House. They can never lose your phone. It is the best time-, money- and even headache-saving system."

— *Nyeri Head Teacher*

Participating schools were given phones with *Mobenzi Researcher* installed, with a practice survey included. An updated version of the electronic EMIS was available to download by the teachers when the paper copy was issued a few weeks later. The SWASH+ team analyzed these electronic submissions and conducted focus group discussions with head teachers to collect qualitative data on users' experiences.

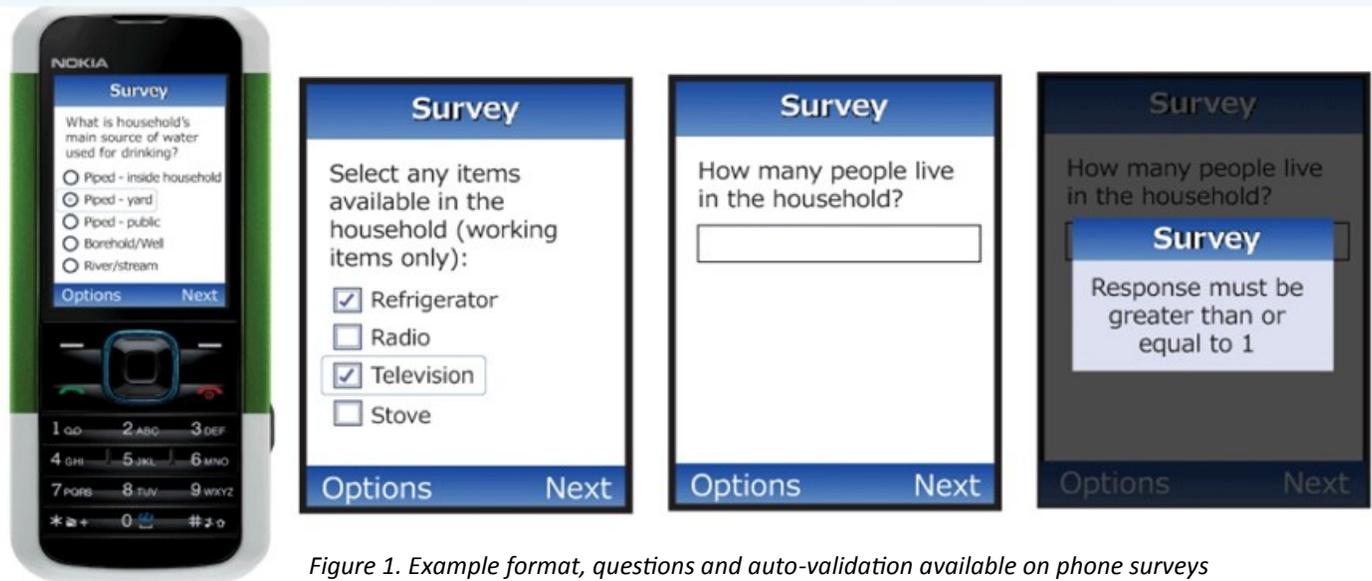


Figure 1. Example format, questions and auto-validation available on phone surveys

The Results

The electronic completion and submission of EMIS was popular with head teachers. In focus group discussions, they cited savings of money and time as well as increased confidence that the requested data would be received. However, some teachers complained of poor data networks limiting their ability to submit the survey, while others wished they were able to save a version of the survey on the phone. Despite these difficulties, 85 percent of schools submitted the survey within two weeks, meeting the deadline set by the Ministry of Education.

Reminder texts increased the chances that a school would submit the survey. For schools receiving texts, survey submission rates were 17 percent higher than those with no text reminders (93 percent vs. 76 percent). Little difference on average was noted between more and less remote schools. In one district, 15 percent fewer schools in remote locations submitted the survey; however, in the other two districts, the remote schools had higher submission rates. This suggests that although network issues exist, remoteness is not inherently a major problem.

Another issue of note involved survey updates. Some revisions were made to the original survey (the practice survey), and 84 percent of submissions were in the updated format. In focus group discussions, head teachers noted that checking for the most recent survey version was complicated.

Conclusions

The EMIS trial has shown that digital phone-based surveys are largely feasible and accepted by teachers. Especially when reminders are issued, these surveys can improve the efficiency of data collection and submission, and allow greater access to and use of received data. Suggested improvements include:

- Allow users to keep digital copies of submitted data for future reference.
- Simplify or improve communication on the updating process.
- Issue a confirmation of receipt of submitted data.

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