**CHALLENGES OF SWITCHING FROM PAPER- TO TABLET-BASED DATA COLLECTION METHODS**

**June 2020**

This document lists common challenges faced when switching from paper- to tablet-based surveying. The information comes from IDinsight data collection experiences and a review of other relevant material. We note that at the time of writing, the world is still grappling with the COVID-19 pandemic. We therefore recommend that the contents of this document only be applied when it is safe to resume data collection in person again.

**CONTEXT**

Mobile data collection (using tablets or smartphones) holds several advantages over paper-based surveying. However, in low-resource settings, paper surveys can be common, and shifting from paper to mobile requires planning and careful implementation. This document summarizes some common challenges and potential solutions, with a focus on those often faced by enumerators new to electronic data collection.¹

**CHALLENGES AND SOLUTIONS**

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| *Disrupted electricity supply* – unreliable electricity can lead to data collection devices that are not sufficiently charged and running out of battery while collecting data. | • Enumerators charge devices overnight (enumerators may ask for additional compensation).  
• Buy enumerators battery packs/power banks.  
• Enumerators carry paper surveys, complete surveys on paper when tablets run out of battery, enter surveys into tablet once the tablet is charged again.  
• Supervisors are given extension cords and heavy-duty power banks and are tasked with charging all devices overnight. |
| *Poor internet connection* – poor internet connection makes it difficult for enumerators to (1) submit survey forms or (2) download new version of the survey if changes are made. | • Ask enumerators to visit areas with internet connection periodically (once or twice a week) and provide transport reimbursement if necessary. |
| *Reactions to software malfunctions* – some enumerators may panic if the survey software freezes or the questionnaire form malfunctions, especially at the beginning of data collection. | • Tell enumerators that malfunctions likely will happen and that when it does, they should not panic.  
• Provide enumerators with troubleshooting ideas.  
• Have a well-trained supervisor whom enumerators can call if they are in the field and have data collection questions.  
• Carry out field piloting with enumerators and supervisors using tablets so that enumerators develop a feel for electronic data collection. |
| *Capturing GPS points* – tablets can take a long time to detect accurate GPS coordinates, especially when there is cloud cover or roofs and/or tree overhead. | • During training, tell enumerators that they should take GPS locations close to the desired location but without obstructing objects, such as trees or buildings/roofs.  
• Emphasize the importance of collecting accurate GPS points within the required precision level (5M, 10M, 20M, etc). |

¹ These are the most common challenges in our experience, and we have not attempted to be exhaustive.
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| **Damaged devices** – one, simple, yet common challenge is that enumerators sometimes drop their devices and break them, or devices get wet and damaged. | • It is likely worth purchasing shock- and water-resistant cases for the devices.  
• You can also encourage enumerators to put devices in plastic bags to protect against water damage.  
• Enumerators will also likely be worried about whether they must pay for the tablet if something happens to it. Make the protocols very clear during training. |
| **Difficulty with open-ended questions** – questions that require enumerators to type words can be difficult. | • Minimize the number of open-ended questions included in the survey; instead, use multiple choice questions if possible.  
• Do not require enumerators to enter words with perfect spelling.  
• Enumerators’ typing will improve over time. |
| **Notes during surveying** – enumerators may want to take notes on a piece of paper while conducting a survey. Sometimes important information is lost because it is never transferred to the tablet. | • Include a question that allows for one to enter ‘general notes’ at the end of the survey. This allows the enumerator to include any supplemental notes that might not have been captured in the survey itself. |
| **General security** – carrying around expensive data collection devices like tablets – particularly in cases where surveying involves traveling to other towns/cities – poses security risks. | • Stay in secure lodges.  
• Have a sign out sheet to keep track of each device being used.  
• Have a secure office space to store devices that are not in use. |

**ADDITIONAL REFERENCES**

Some additional resources can be found at the following links:


   a. [https://www.snapsurveys.com/blog/which-is-more-effective-paper-based-surveys-or-online-surveys/](https://www.snapsurveys.com/blog/which-is-more-effective-paper-based-surveys-or-online-surveys/)