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Electronic Data Collection for EGRA

Prepared for the USAID workshop
“Designing and Implementing Early Grade Reading
Assessments: Understanding the Basics”

March 2015

Recap of Where We Are

- Identification of Research Design and Sampling Framework
- Development/Adaptation of EGRA Instrument
- Procedures for EGRA Administration, Scoring and Data Capture
- **Establishment of Electronic Data Capture System**
- Enumerator Training, Assessment, and Selection
- Pilot and Full Data Collection
- Use and Dissemination of EGRA Results
- Planning and Managing EGRA Implementation

Session Objectives

- To be familiar with the pros and cons of electronic data collection versus paper data collection
- To understand considerations related to procurement and shipping of equipment
- To be aware of important considerations related to electronic data

Why Electronic Data Collection?

Before



Why Electronic Data Collection?

After



Advantages

- Simplifies some elements of data collection logistics
- Reduces errors and omissions during data collection
- Allows for real-time quality control and verification
- Reduces errors during data entry
- Eliminates the time spent in data entry
- Improves efficiency of data analysis

Gets results to client in a more timely way.

Cautions

- Not foolproof – depending on the system, there is still potential for error or loss of data.
- Time/cost savings on data entry may be needed up front for developing and testing electronic tools.
- Cost efficiencies occur only when hardware will be used for multiple data collections.
- Backup paper instruments are still needed.
- Assessor profiles should consider familiarity with technology.

Cautions: Digital Data Security

- GPS point captures should be used for verification purposes, not for identifying individual schools.
- Depending on the system (Tangerine software or not), access to raw results may be accessible to several people, so extra care needs to be taken to ensure privacy is respected and individual schools or teachers are not punished with the results.
- Country-specific laws related to export of education data can affect use of a server outside of the country.

Comparison of Tools

- While other electronic data collection tools exist, Tangerine was developed specifically for EGRA:
 - Includes EGRA-specific templates (such as timed grid-type surveys) and printing options for backup instruments.
 - Provides space for assessor instructions and specific “scripts” for reading to the children.
 - Has a variety of training and support tools available and an increasing community of users that can provide EGRA-specific support.
- iProSurveyor is a proprietary tool designed for EGRA on the iPad (used in Arabic-speaking countries).

Handout 5.1: Feature Comparison: E-data Collection Tools

Features	Tangerine	Magpi	SurveyToGo	doForms	Droid Survey
Price		Free license for up to 6,000 completed forms/interviews per year. Pro license \$5,000 per year and includes 10K uploads. Enterprise license \$10,000 per year and includes 20K uploads. Paid users can buy additional uploads costing \$0.30-\$0.25 extra	\$99 for basic version for 200 interviews with 10 users/devices. \$1,210 for best version with 6,000 interviews with unlimited users/devices. Also have monthly plans ranging from \$500 to \$2,499 (20,000 interviews)	\$9.95 per month/\$99.95 per year per device for professional version. \$14.95 per month/\$149.95 per year per device for dispatch version	Educational Pricing: \$60 for one month, \$280 for six months, \$400 for one year. Unlimited number of devices and 3,000 results uploads per month
Compatibility					
Android	yes	yes	yes	yes	yes
iOS	no	yes	no	yes	Yes, using a separate app called iSurvey
Windows Mobile	no	no	yes	Available soon	no
Symbian	no	yes	no	no	no
Blackberry	no	no	no	no	no
SMS	no	yes	no	no	no
Instrument development					
Form-based (no programmer expertise needed)	yes	yes	yes	yes	Yes
Offline instrument editing	yes	Yes, it is possible to edit instrument offline in Excel or XForms format and then upload it	no	yes	no
Unicode compatible; wide language/script compatibility	yes	yes	yes	yes	yes
User interface for language localization	yes	Choice of five different languages	Yes	English, Spanish, Russian	Yes, choice of about 15 languages
EGRA core subtask templates	yes	no	no	no	no
EGMA core subtask templates	yes	no	no	no	no
Possible to create EGRA instrument?	yes	No, not without contracting customization services	Yes, but not without some training	Yes, with any of the paid versions	Yes (but it would not be easy as this grid table is intended for several rows of questions)

Procurement Considerations

- Purchase: Model, vendor and accessories
- Shipping: Commercial shipping or hand-carry
- Storage: Safety and durability during periods of non-use
- Reuse: Ownership policy, export

Procurement: Purchase Considerations

- Google Nexus 7 (7-inch screen, Android OS)
- Accessories (stylus, case, wireless router)



Procurement: Shipping Considerations

- Purchase locally if possible.
- If purchased abroad, leave plenty of time in advance for shipping.
- Hand-carrying is possible for small numbers, but don't trust it to checked baggage.
- Whether you plan to leave the tablets in country or export them later will make a difference for customs.

Procurement: Storage Considerations

Storage policies and procedures:

- The storage location should be secure from theft
- It should have appropriate temperature and protection from dust, humidity
- Plans should take into account that battery life can be affected by long periods of nonuse
- Users should be told clear procedures for access and use

Procurement: Ownership and Reuse

- Minimize incentives for theft by having clear ownership and accountability procedures at all levels (client, project, subcontractor, assessor)
- Check project requirements related to procurement and transfer of equipment to host countries or client
- Have a plan for appropriate disposal of broken equipment (after ensuring that it is actually irreparable)

Handout 5.2: Participant Training Agreement

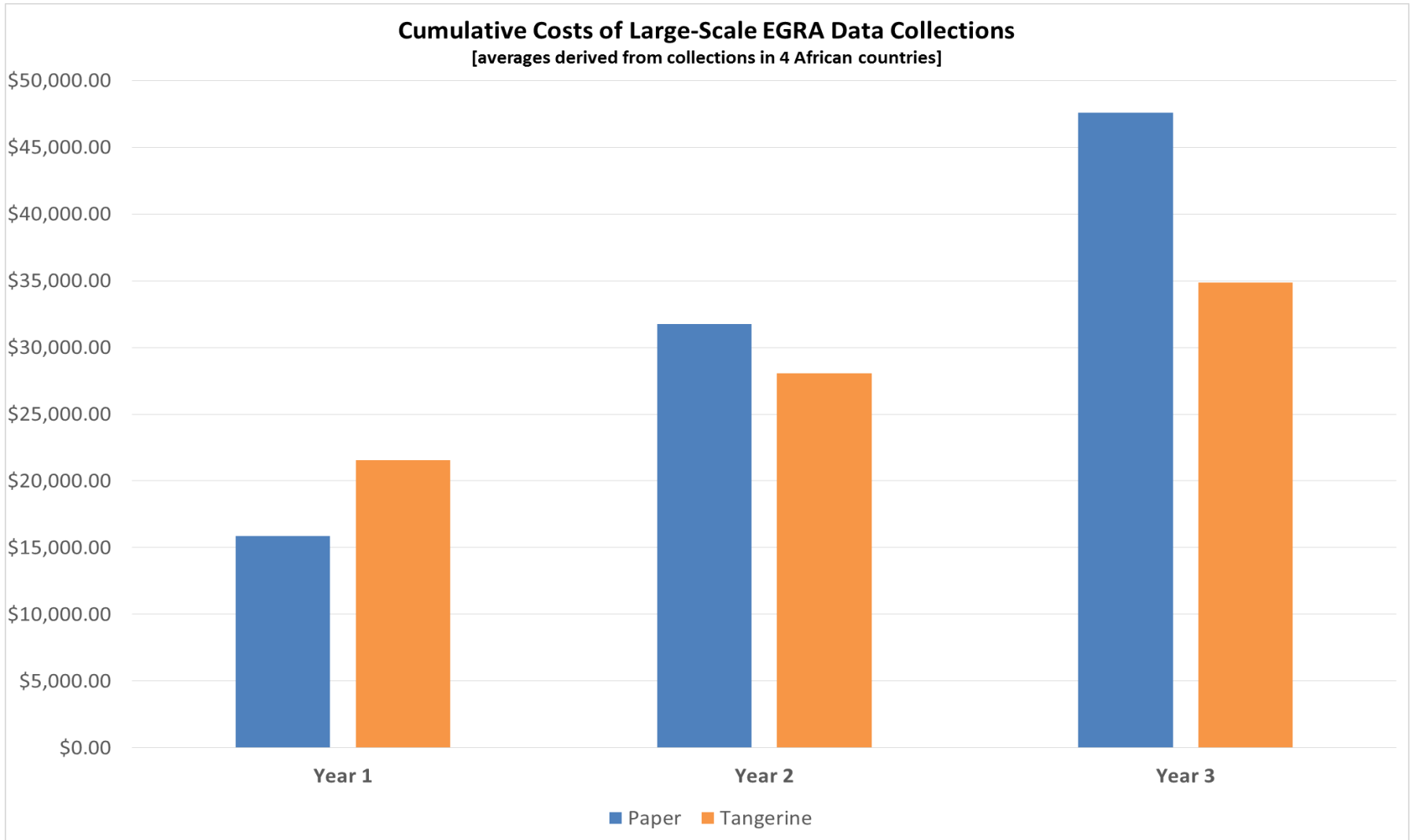
The objective of the Early Grade Reading Assessment (EGRA) data collector training is to identify and train a group of people who will serve as assessors and supervisors during the DATE EGRA data collection in LOCATIONS. The exercise is supported by INFORMATION and conducted in partnership with INFORMATION.

The success of the data collection depends on the full participation of participants at the data collector training. The Participant's signature below signifies his/her agreement to fully participate in the training and to take care of all equipment that will be used during the training. Specifically, the Participant agrees to:

- Arrive on time every day during training.
- Respect the authority of the workshop facilitators, project staff and other colleagues.
- Use materials and equipment correctly and only as directed. In particular, this includes use of a tablet and all accessories (stylus, charger and cord).
- Sign the tablet "out" and "in" each day.
- Keep the device in a safe place at all times. The tablet is the sole property of INFORMATION and should not be removed from the training venue.
- Maintain the tablet and accessories in good working condition and keep them in a safe place at all times.
- Take care not to drop the device.
- Save and upload data as directed.
- Project a professional image during school visits; respect school property and leave classrooms as they were found.
- Work collaboratively with all participants to efficiently accomplish tasks.

The Participant hereby agrees to the points above and takes responsibility for any damages to, or loss of, the tablet during the time that the tablet is used by the Participant.

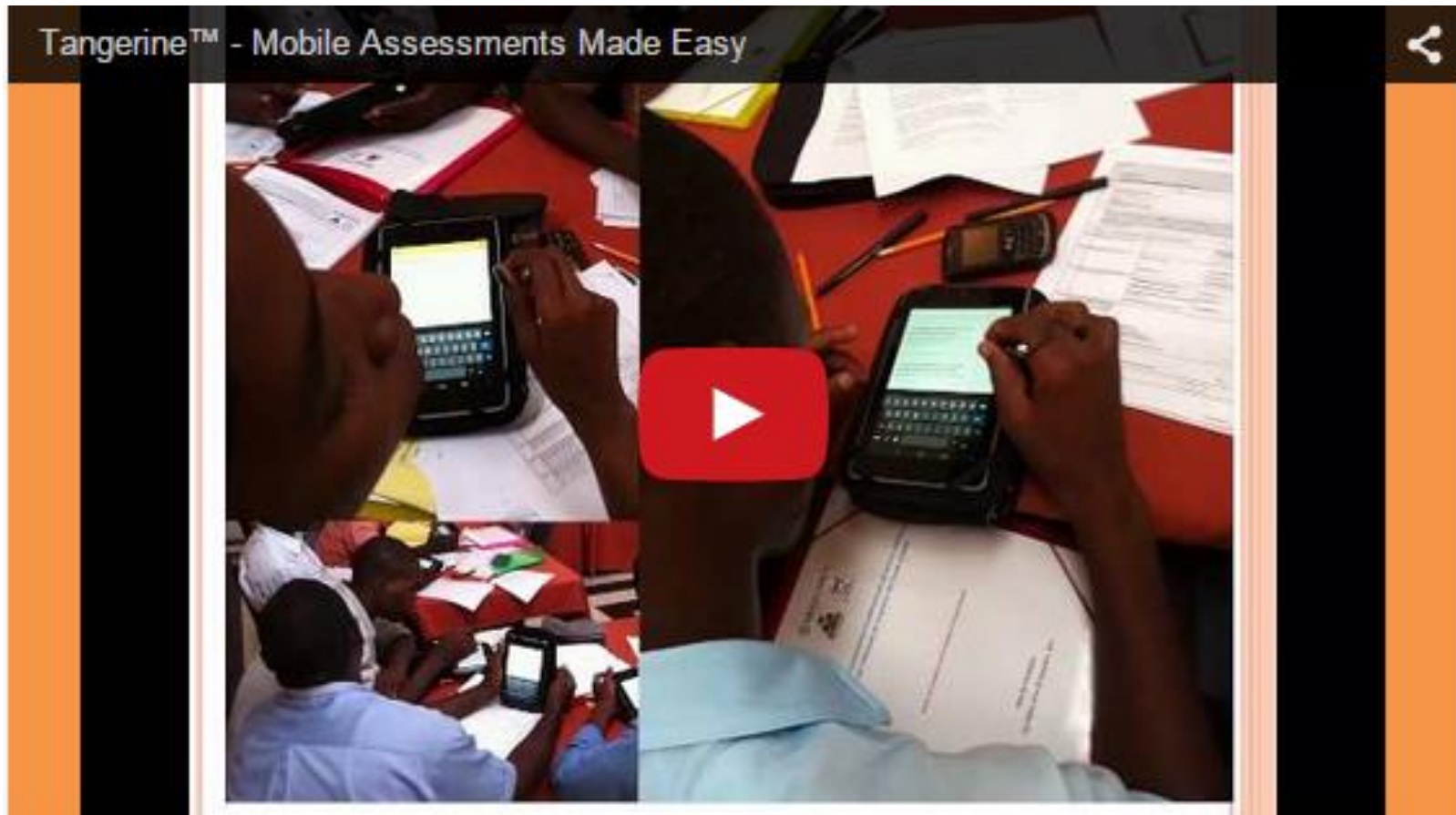
Cost Considerations



Cost Considerations, continued

- Hardware and accessories – most likely more than the associated paper costs
- Use of Internet – not necessary for paper-based surveys, but most likely less than associated costs for transporting and storage of paper surveys
- Labor – time for preparing electronic instruments may be more than for paper-based instruments, and may even be *in addition to* preparation of paper instruments; although data entry costs are eliminated, there are more opportunities for increasing data monitoring during fieldwork

Short Video Introduction



<http://tangerinecentral.org/aboutsite>