Going Virtual
Supporting Assessment and Family Outreach & Considering Access, User Engagement, and Content in Making the Right Technology Choice for Your Audience

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“Hacking” Tangerine to Support Virtual Assessment and Family Outreach
For those who may not know Tangerine yet, please follow this link to see a short introductory video.

Tangerine is open source software that facilitates electronic data collection, continuous student assessment, and program monitoring. To date, Tangerine has been deployed in over 60 countries and 100 languages by nearly 80 different organizations around the world.
Tangerine was originally designed for assessor-led data collection efforts, e.g., to conduct large-scale early learning assessments, school stakeholder surveys, classroom observations or inventories, etc.,

Given is flexibility and modular design and its ability to accommodate a great variety of different assessment items, however, Tangerine can also be used for student self-study and assessment.

Instead of developing a assessor-led instrument using Tangerine’s simple online editor, a program staff or teachers could combine different content elements (text, video, audio, images) with introductory or follow-up questions and prompts (e.g., prediction prompts for a story or science experiment; or checks of understanding following presentation of a story or text).

Tangerine was developed from a lens of “offline first”. In this model, program staff or teachers develop a first set of the student self-study content and self-assessment instruments online; then students install Tangerine on their mobile devices. Following installation of the app on an Android device, however, the students can study and practice entirely offline. If results/responses from students want to be collected and
analyzed and where student connectivity is available, students can “sync” their inputs in responding to the prompts to the Tangerine server for program staff to access and review.
Aside from images and text, Tangerine also allows program staff or teachers to share video files or audio prompts. Students can also use their mobile device to take an image, e.g., of their real-life experiment, artwork, or writing activity and safe it (and ultimately sync it, when connectivity exists) to the Tangerine server for program staff to review and/or share with teachers.
Tangerine: Teach, the student continuous assessment “flavor” of Tangerine, assists teachers to systematically collect, analyze, and use students’ results from continuous curriculum-based assessments. The software creates individual profiles for each student in a classroom, facilitates data capture and analysis, offers easy-to-read student and class-level result reports, and provides data-utilization guidance to improve instruction. Tangerine: Teach helps teachers keep track of students’ assessments, outcomes, and progress. The software can integrate cognitive and non-cognitive measures as well as rapid disability screening tools along with academic tests. Moreover, Tangerine: Teach allows program implementors to provide custom feedback based on students’ results to scaffold teachers’ instructional decision making, e.g., on teaching strategies, instructional pacing, student grouping, and student materials use.
Aside from using Tangerine:Teach to facilitate systematic continuous assessment, even from a distance, with students, teachers can also use Tangerine teacher to monitor family outreach and student well-being, by program staff including related instruments and interview items in the platform for teachers to use.
Considering Access, User Engagement, and Content in Making the Right Technology Choice for Your Audience
A team from RTI International has been working on a series of recommendations, decision-support tools, and step-by-step guides based on their expertise from decades of working with education technologies in low-resource settings.

For this work, we wanted to think about the needs across sectors and our diverse target groups and project activities. Given RTI’s broad portfolio of work, in some cases, teams may be trying to figure out how to keep teacher training going on an education project, or how to engage with farmers in countries we can no longer travel to, or how to effectively meet virtually with local government leaders.

Among the guiding principles to keep in mind is that no size fits all. Some technology-supported approaches work well in one context, but not another. And there isn’t one approach that meets every target audiences’ needs; even within a single program, you might need to plan for various approaches to reach a diverse audience. To help project teams, program leaders, and governments “go virtual”, here are several key recommendations and considerations:

**Identify communication channels and dominant participant technology access.** In essence, “Meet people where they are”. What technology access do most of your
targeted participants have? What costs of previously planned face-to-face activities could be diverted into costs of infrastructure (data, hardware, printing, production) for virtual activities?

**Identify key participant engagement and content features.** Especially for education, there are many lists (e.g., from the World Bank[link is external] or UNESCO[link is external]) introducing technologies along different categories, such as offline/online, content management versus learning management system, assessment, or even along different target skills (e.g., OECD[link is external]). But how do you know when to use which technology type for YOUR specific audience and purpose? RTI developed this detailed [flow chart](#) to help you systematically examine audience and project needs through simple “yes/no” answers, drilling down to specific technologies and platforms. Keep the target audience in mind when considering the answer (answers may change depending on the target audience so the step-by-step could be done multiple times for different audiences); yet also be aware of critical considerations on data security and privacy, particularly when using cloud-based platforms.
Consider and compare specific technology platforms. There are thousands of technologies! The team has tested various (many of which are also considered in the flow-chart) and have also found that, often, technologies can be re-purposed (e.g., using Yapp, an event management app, for a participant engagement and content sharing tool).

Successfully ‘going virtual’ depends on many factors. To find out more about specific lessons learned from RTI’s projects around the world, keep monitoring shared.rti.org for new commentaries and resources.

Find the full article introducing this decision flow chart here: https://shared.rti.org/content/going-virtual-project-implementation—-decisions-and-considerations
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