

## Digital Opportunities in Rural Classrooms

Zambian community school teachers are often faced with complex and difficult teaching situations. As volunteers, these unpaid and largely untrained teachers often work in remote areas beyond the reach of electricity or radio reception. While coping with early primary-level instruction, these educators often encounter difficulties teaching the more complex concepts of Mathematics, Science and English at middle- and upper-basic levels. One of USAID's most ambitious responses to this challenge is the Interactive Radio Instruction series of the *Quality Education Services Through Technology (QUESTT)* program, currently serving over 200,000 learners.

The QUESTT Project is piloting an MP3 player program to extend Interactive Radio Instruction into classrooms beyond the reach of daily radio signal. Video-capable iPods have been loaded with 150 Interactive Radio Instruction lessons for each Grades 1, 2, 3, and 6, covering the entire Zambian curriculum for each grade. Phase I of the pilot provided teachers with speakers and an alternative energy source--either solar panels or a foot-pumped generator--for powering the speakers and charging the iPod, while Phase II supplies FM broadcasters which attach to the iPod and allow teachers to use their existing radios as speaker systems.

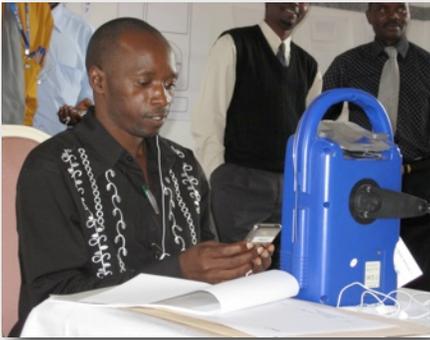
### Early Results Show...

*...teachers have been very satisfied with the digital delivery of Interactive Radio Instruction lessons to their learners, identifying the following benefits:*

- Increased flexibility in choosing when to conduct a lesson, rather than being bound to a broadcast schedule.
- Increased control over lesson delivery, where use of the *pause* and *rewind* controls allows teachers to pause the broadcast or repeat segments when necessary.
- Increased regularity in student attendance attributed both to the novelty of the technology and independence from radio broadcasts with poor reception.

iPods are loaded with an electronic resource library complete with enrichment materials and practice activities to correspond with the national curriculum in Mathematics, Science, and English. Prepared by writers from the Ministry of Education, resources are provided in text, audio, and video. Training sessions were held to familiarize teachers with the resources and how to use them in lesson preparation and post-broadcast activities.

**QUESTT is currently implementing the following modifications in the second phase of the pilot:**



Uploading all Interactive Radio Instruction lessons for Grades 1 to 3 onto an MP3 player that will be shared among teachers at these levels within a school. This changes the target audience from upper to lower elementary, and from a single classroom to several.



Equipping schools with a low-cost, portable transmitting device that allows “broadcasting” from the MP3 player to the radio. This eliminates the need for external speakers and allows teachers to continue using radios already distributed by the project to community schools throughout the country.



Preparing an electronic library of supplementary teaching and learning resources targeting reading and writing skills at early primary levels. These resources will be loaded onto the MP3 player enabling teacher access to strategies specifically designed to improve student literacy.



**EDC, INC. WELCOMES YOUR INTEREST!** If you would like more information regarding the use of digital technology in classrooms, Interactive Radio Instruction, or subject-specific teaching and learning resource design, please let us know.

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