Reusing a legacy interactive audio instruction (IAI) program to provide education in a humanitarian crisis is a quick solution and a smart use of previous investments ("Learning in the Time of Ebola"). This article highlights and advises on the issues that relate to adapting and updating previously developed IAI programs, including how to orient current audiences to listen and learn in new ways.

By: Simon Richmond
But first, a warning. This solution is not as simple as merely rebroadcasting the series. It will take thought and planning to ensure the programs have a learning impact because effective IAI relies on multiple supporting factors that need to be in place. However with careful and creative thought, it is possible to solve the following fundamental challenges of rebroadcasting legacy programming by making some key decisions must be made before beginning:

1. **Content revision.** Is the content relevant to current learning goals and standards? If the answer is generally yes, the next step is to decide how much would need to be updated. If the answer is no, or mostly no, then the IAI series or programs you are considering are probably not useful in the current crisis context.

2. **Facilitator training.** With pupils out of school and guidelines asking people to stay home and practice social distancing, who will facilitate the programs—that is, who will take on the role usually played by a classroom teacher? How will we prepare those people (likely parents, caregivers, or older siblings) to facilitate the IAI lessons? What advice and directions do we give to new facilitators to set themselves and their learners up to best use the programs?

3. **Supporting materials.** Can the programs be used without pre-prepared supporting materials (books, workbooks, teacher guides, etc.)? If the answer is no or mostly no, what materials are absolutely needed to accompany each broadcast? How will they be delivered to the listeners?

4. **Public awareness.** How will listeners’ families and communities learn about the broadcasts, and how can they be motivated to take advantage of them?

Detailed guidance for making each of these decisions is discussed in the following corresponding sections.

### Challenge 1: Content Revision

The legacy series you are revitalizing will have been written to deliver the curriculum of its day. It targets certain grades and uses a specific language of instruction. However, curricula may have since been updated, and even the language of instruction may have changed. If the language of the programs is still a language of instruction, it is likely to still be useful, even if a revised or new curriculum has since been put in place. If there are critical—but limited—disparities, hopefully the IAI programs can be quickly edited or changed in the studio. Studio technicians can’t work miracles, but they can employ a few basic tricks to make recording changes to the content, as defined below:
Selective cutting refers to snipping out content from a program, be it a single word, sentence, segment, or even an entire episode in the series. These changes are quick and easy to make.

Overdubbing means that instead of cutting out a section of recording, it is altered by a studio technician who splices in a newly recorded change. Thus, additional sentences can be added, or dated terminology can be replaced, with overdubs of short words or phrases. Overdubbing takes more time than cutting. (Note: Overdubbing is made much easier when the original actors are still available, and the unmixed master recordings are accessible. Extensive overdubbing really does require the same voice actors.)

Rerecording new material involves developing a script for new segments and recruiting actors to record them. Entire sections of new content can be recorded and added to a program. This change takes the most time of all, as new content needs to be developed. Original actors are not necessarily required during rerecording because the recordings of new actors will stand alone as unique segments.

These studio skills can be employed to make changes both to the curriculum content and to the language of broadcast as outlined in Table 1. This table presents a kind of “decision tree” with appropriate steps for using the existing audio program.

**TABLE 1. Curriculum changes and solutions**

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<tr>
<th>When recent curriculum changes include:</th>
<th>Then apply these solutions:</th>
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<tr>
<td>Incremental and academic upgrades to content</td>
<td>No program alterations. This is the quickest and least expensive solution. Rebroadcast the legacy programs as they are. Because the curriculum updates are generally minor and/or the program content is still accurate and relevant, even if not perfectly aligned with the current curriculum sequence, the benefits of offering instruction to learners rapidly outweigh minor disparities in the curriculum or some misalignment in terms of content sequencing. This option will save much time and money and ensure that children have almost immediate access to learning opportunities despite school closures.</td>
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<td>Revision of incorrect terminology and references</td>
<td>Overdub the outdated terminology by rerecording the original actors speaking replacement words and phrases. If the original actors are not available, overdubbing is probably not suitable.</td>
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<tr>
<td>Upgraded ideas and methodology</td>
<td>Selectively cut out the most dated content and shorten each episode. Social subjects tend to be most commonly affected by these upgrades. Retain the core academics of math, science, reading, and language, and broadcast the series as is, just shorter.</td>
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Critical new methodology and approaches

Rerecord entirely new segments and even whole episodes to capture the new ideas, but in such a way as to mimic the structure of the original series. Package the new segments with elements of the legacy programs, such as theme and transition music, so the audience detects minimal change. Note that these upgrades should be limited to as few changes as possible, as they take considerable time to write, record, field test, and finalize.

When there are new language requirements:

Then these solutions can be applied:

The language of broadcast is no longer a language of instruction and/or is foreign to the listeners, but not to community members available to interpret.

Overdub the pause lengths and adjust to allow translation time. If, for example, the broadcast language is English, and English is no longer used as the language of instruction or listeners do not speak it, it may be possible to find an English-speaking facilitator such as an older relative. By lengthening the response time linked to each set of instructions in the broadcast, and by directing the facilitator to provide live interpretation, it is possible for the interpreters to keep up and the learners to follow along.

This solution is much less work than the alternatives, but it is not easy. It requires numerous changes to each program and results in a somewhat stilted program. But it is possible for students to learn, and it has the hidden advantage of teaching the listeners the new language (especially if they are young children).

The language of broadcast is foreign to everyone in the community.

Rerecord the series completely. This takes considerable work, but still saves time over creating programs from scratch. It is made much easier if the final draft of each script is available for translation. This solution is not likely to be completed rapidly, and schools could well be back in session before re-recording is complete.

Challenge 2: Facilitator Training

Some IAI series are designed to be broadcast to formal classrooms, others to community schools, and still others to informal listening groups. In each situation, the original program designers operated under a specific set of assumptions and relied on critical characteristics of their listener’s environment. In the current context, it is likely that programs designed for formal classrooms and community schools will be the main targets for repurposing.

These design assumptions need to be identified and accommodated (Table 2). Important questions to ask include the following:

- Are the programs reliant on a trained teacher to guide listeners through activities?
- Is it possible to find and use a substitute facilitator, instead of a trained teacher?
- Can the programs still be used with very small groups of listeners?
If the answer to the latter two questions is yes, it makes sense to offer families and communities simple instructions so that they can set themselves up to get the most benefit from the programs, even if all of the program design assumptions cannot be met. Doing this correctly will require simple and explicit directions to volunteer facilitators (parents, caregivers or older siblings) on setting up a learning space and using the programs.

### TABLE 2. Assumptions and solutions

<table>
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<tr>
<th>Original Assumption</th>
<th>Pre-Broadcast Orientation Solutions for Parents, Communities, and Volunteer Facilitators</th>
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<tbody>
<tr>
<td>Listeners are gathered in numbers and will complete activities in pairs and small groups.</td>
<td>Advise parents and communities to gather small numbers of learners together, whom they trust and who are not sick, in a safe location (most likely a home with space such that they can sit with appropriate social distancing). Contact civil society actors, such as community radio stations, local NGOs, and religious leaders, and task them with activating their networks to advocate for program usage and to help communities and families set up small listening groups. Some might even form their own small groups and role-play the teacher. When even limited gatherings are problematic, advise parents and communities that the IRI programs can be used with groups as small as two pupils, especially if they request that older relatives and siblings role-play as classmates of the targeted learner.</td>
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| A teacher/facilitator is present to guide participation. | Ensure each listening group has a volunteer facilitator for the IRI programs. Advise parents or older siblings to role-play as the teacher and oversee the participation of the learners. This task of being the role-playing teacher is possible even for an uneducated person as it should not require specific content knowledge. The actual instruction is radio driven, so the role-playing teacher will only need to act as a “traffic officer” to enforce what is broadcast. The individual who is role-playing the teacher will need some orientation to this new task. Orientation information should include:  
  > Program purpose  
  > Subject  
  > Target age or grade  
  > Duration  
  > Main characters  
  > Necessary supplies: Maybe slates and chalk or paper and pencils  
  > Basic program structure (# of segments, etc.) |
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<th>Original Assumption Needing Accommodation</th>
<th>Pre-Broadcast Orientation Solutions for Parents, Communities, and Volunteer Facilitators</th>
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<td>Orientation will also have to provide role-playing teachers with information on how to handle pauses, implement group activities, especially with very small numbers of children, and encourage learners during the programs. When a solid orientation is provided, it can help the role-playing teacher get off to a positive start and potentially help him or her evolve from a traffic officer to the radio teacher’s “copilot.” Orientations can be offered in various formats, depending on the context:</td>
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<td>Orientation sessions can be broadcast in advance of airing the programs. Role-playing teachers can be organized to listen to a few broadcast orientation programs(^2) to prepare them to facilitate the IAI programs with children.</td>
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<td>Alternatively, especially in contexts with enough bandwidth and Internet penetration, print and radio advertising can raise awareness and drive traffic to a website (where a basic orientation program can be completed) or to a hotline (where callers can be given personalized guidance).</td>
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<td>A text-based orientation system can be built in a common platform, such as WhatsApp, so role-playing teachers can navigate menus at little cost, drilling down and requesting further information on different topics as needed.</td>
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<td>A partnership can be established with a mobile network, where pre-recorded instructions can play back to callers through a toll-free number.</td>
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<td>If it is safe to do so, community outreach officers, district education officers, local NGO representatives and religious leaders can travel within communities to offer in-person help in forming listening groups and offer orientation sessions to small groups of role-playing teachers, with appropriate distancing. The best results will be achieved when as many of the above approaches as possible are used, and where other custom solutions are designed for the operating conditions at hand.</td>
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<td>A blackboard is on hand to write out examples and assignments. If a blackboard is not available, advise the role-playing teachers to find other surfaces to write on, including pupil slates (if used), flip charts, cardboard, or notebook paper. Even writing on the earth with a stick can work as a radio lesson can be followed outside.</td>
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Repurposing Established Radio and Audio Series to Address the COVID-19 Educational Crises

**Challenge 3: Print Material Support**

If teacher’s guides or student readers and workbooks are a critical part of the program, they must be provided. In most cases, broadcasting the IAI programs and having a facilitator to guide children through the programs are the most critical ingredients and sufficient to use the IAI programs effectively, especially in a crisis context. Providing materials is usually a government-led task, however NGOs and civil society groups can also be pressed into service. Planners should organize to print the requisite books and distribute them as deeply into the listening communities as possible. When door-to-door delivery isn’t feasible, the “last mile” can be crossed by delivering to small local businesses or government offices that remain open and then broadcast directions to families and communities to travel locally and seek them out.

If the delivery networks commonly used by a host country government are problematic or potentially not functioning during the pandemic, look for transport systems in the private sector, such as local busing companies, or approach corporations such as mobile carriers or bottling companies and negotiate a public-private partnership agreement to piggyback on the means they use to disseminate scratch cards and drinks.

If bookbinding costs are high or print-run timelines are long, investigate the possibility of publishing regular low-cost inserts in local newspapers. They have fast daily print runs and established distribution networks. When Internet accessibility and cost are not prohibitive, digitize accompanying workbooks and teacher guides and make them available for download.
When downloading is not possible but receiving texts is free, set up a text-based distribution system. Participants can enroll by texting an advertised number, and then receive a daily text back that prepares them for the upcoming broadcast. They can then transcribe their incoming texts as needed onto their “blackboard” or into learner’s books.

**Challenge 4: Public Awareness**

A public awareness campaign will be needed to raise awareness of the availability of the radio education programs and to establish new expectations for how parents and communities should support them. Many of the issues addressed in the sections above should be turned into advertising that targets parents. Several public-service and social and behavioral change communications messages will need to be developed and used to saturate the airwaves, both prior to and during the series broadcast. While the program broadcasting may only occur on one national radio station, advertising should be broadcast on as many regional and community radio stations as possible.

Parents do not normally need much convincing to educate their children. In times of crisis, education is usually the first service that parents seek out after they secure food and accommodation. However, many parents have preconceived notions of what education should look like (“Children need a teacher and classroom.”) or who should run it (“It’s the government’s job.”) or what role they are responsible for (“I just pay the fees.”). These notions can arise as obstacles to learning by radio because the paradigm is so different that it can defy comprehension. These preconceived notions should be addressed and corrected by the campaign (“Listen to the Radio . . . and Learn!”).

Some core messages include the following:

- Although we are in an emergency, children can still learn. They even feel better when they have something familiar to look forward to every day.
- Learning by radio can be just as good as the classroom because the programs are written by very good teachers.
- It is important to make sure you set your child up to listen every day, organize what they need, and protect them from distraction.
- These programs are created and endorsed by the government as a legitimate alternative to school during these times.
- You don’t need to be a teacher to help during the broadcast. The radio will give clear and simple instructions for you to follow. Then your children will learn much more.
- Children learn from songs and games. It might look fun, but it is still serious education.
You should explain to your neighbors how you are helping your child learn and invite them to do the same with their children.

Include information for parents and communities on where and how they can access resources to accompany the programs, if these are necessary.

And of course:

- The daily broadcast time for grade 1 is X, for grade 2 is Y, etc.

**Conclusion**

An IAI series provides a wonderful opportunity for an education system to deliver an interactive learning experience to all children, irrespective of the skills of their teachers or the resources in their schools. It can even be used where there are no teachers or schools. It is designed to run with either low or high levels of support. At the low level of support, unskilled teachers are set up to oversee the learners, to reinforce participation, and to observe the instructional modeling taking place. At the high level of support, skilled teachers work alongside each broadcast to provide instant feedback, encouragement, and the inspired expansion of concepts post-broadcast.

This accommodating design makes IAI a flexible tool for education in emergency situations. Indeed, using a previously developed IAI series to resolve an educational crisis is a great and cost-effective solution, but it will require careful planning and parallel support mechanisms. If the qualitative characteristics and operational assumptions of the legacy series are understood, they can be quickly adapted for maximum utility during the crisis. Necessary changes can be made to its content when educational planners and studio technicians work together systematically. Volunteers—parents, caregivers, older siblings—can step in to play the role of the teacher, and a classroom can be replaced by a home environment. Creative thinking and quick print runs can deliver the needed support materials to learners. And with an innovative training program backed by a vibrant promotional campaign, communities can put the necessary structures in place to maximize the learning of their children.

For more information on these suggested solutions, or for direct help in preparing a series for rebroadcast, contact Rachel Christina.

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**Endnotes**

1. Final drafts of scripts are notoriously messy and hard to follow. Because they are used by the studio technicians to make last-minute cuts under pressure from broadcast deadlines, they are usually covered in shorthand changes and are substantially different from the final program.

2. IAI training programs have been delivered to teachers via radio with remarkable success in several countries. The methodology is employed to teach the methodology, and the medium quite literally becomes the message.