Adapting eLearning content for an interactive voice response course for professional development in Kenya

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K4Health Overview – What we do

We help people around the world learn, share, and act on critical family planning and public health knowledge.
K4Health Overview – How we do it

- Systematic learning
- Meaningful connections
- Digital health strategy
- Health workforce strengthening
Context

- Growing demand for customized training content for health workers
- Mobile phone ownership is very high
- Although increasing, Internet access remains limited for many in low- and middle-income countries
Interactive Voice Response (IVR)

- Delivers information via audio recordings
- Users can provide feedback by pressing a number key
- Works with any type of mobile phone
- Low cost, easy-to-use
- Can reach large population, including those with limited literacy
Intervention

• Use IVR platform to develop family planning reinforcement training
• Students and health providers in Kenya
  • Kenya Medical Training College Kitui and Kitui District Hospital
• Completed offline family planning courses
• 20 audio questions and explanation via IVR
  • Participants can answer up to 4 questions each day
  • Participants must answer each question correctly on two separate days
Content Adaptation
Timeline and participant retention

Participants recruited and complete offline courses and baseline knowledge assessment

- 233 participants

Participate in Family Planning Mobile Training Course via IVR (at least 6 weeks after completion of baseline)

- 185 initiated
- 99 completed

Complete endline knowledge assessment

- 75 participants completed baseline, IVR program, and endline
  - 55 students & 20 health care providers
Methodology

• Knowledge retention evaluation
  • Comparison of baseline and endline scores using t-test of unequal variance

• Usability and platform engagement
  • Usability survey
  • Focus group discussions
  • IVR platform data collection
**Findings: Knowledge Retention**

<table>
<thead>
<tr>
<th>Participants (n=75)</th>
<th>Baseline</th>
<th>Endline</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean score</td>
<td>12.1 (10.9-13.3)</td>
<td>15.9 (15.3-16.5)</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>
Findings: Usability

• Most respondents reported that using their mobile phone to complete IVR training was very easy (51%) or easy (41%) (n=73)
• Focus group discussion participants said IVR training was convenient.

• Reported challenges
  • Unable to ask questions
  • No exercises or demonstrations
  • Unable to interact with other participants

• Technical difficulties
  • Sound quality on some mobile phones
Findings: Usability

• Participant suggestions for improvement
  • More interactivity, opportunity to ask questions back
  • Option to receive content via text message
Findings: Engagement

<table>
<thead>
<tr>
<th>Participants (n=161)</th>
<th># of Days of Receiving Training Calls</th>
<th>Average call duration</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Average</td>
</tr>
<tr>
<td>Completed the course (n=75)</td>
<td>22.6 days</td>
<td>12 days</td>
</tr>
<tr>
<td>Did not complete the course (n=86)</td>
<td>8 days</td>
<td>1 day</td>
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Discussion - Challenges

• Responses to IVR questions lagged over time
• Participants wanted to know how many questions were left to answer → fatigue
• Began offering phone credit incentive for completion of the training
• Incentive of accreditation or continuing professional development credits may be even more effective
• Added participants to the platform manually – automation may be preferable
• Audio clarity
• Lack of interactivity
Recommendations

• Local program manager
  • Ties to local network
  • Experience in online learning
  • Enthusiasm for technology

• Remember that even open-source technology costs money to set up, customize, and maintain

• Develop content in conjunction with technology
  • Audio: 3-5 minutes or maximum of 500 words

• Engage local partners