Selecting and Recording Voices for ACASI (Audio Computer-Assisted Self-Interviewing): Voice Characteristics and Other Considerations

Kerryann DiLoreto, Jennifer Dykema, and Ben Taft

UW Survey Center
University of Wisconsin Madison
kdiloret@ssc.wisc.edu

Presented at the annual meeting of the
International Field Directors & Technology Conference
Orlando, FL
22 May 2012

© 2012. Materials may not be reproduced without permission of the author.
Additional Collaborators at UWSC

- Jessica Price
- Nora Cate Schaeffer
- Eric White
- Kate Golen
- Rob Schultz
Brief description of ACASI

- Audio computer-assisted self-interviewing
- Occurs during in-person interviewing
- Interviewer passes the laptop to the respondent
- Respondent (typically)
  - views pre-programmed question text
  - simultaneously hears pre-recorded voice reading the text through headphones
  - records response by pressing key that corresponds to answer
- Most commonly used for sensitive questions
Advantages of ACASI (Turner et al. 1998a)

- Typically yields higher reports of sensitive behaviors compared to CAPI (e.g., Tourangeau and Smith 1996) or paper-and-pencil questionnaires (e.g., Turner, Leighton et al. 1998)
- Overcomes literacy concerns
- Readily adaptable to multilingual interviews
- Takes advantage of computerization for questionnaire design
  - Some evidence that computerization is more important in improving data quality than audio (Tourangeau and Smith 1996)
ACASI decision framework

• Decisions have to be made about
  • Selecting the voice
  • Recording the voice
  • Implementing the voice
Selecting the voice

- Logistics of finding voice talent
  - Payroll
  - Long-term
  - Interviewing experience vs. other experience
Selecting the voice

- Respondents are repeatedly exposed to the same ACASI voice and may make inferences about the voice’s:
  - Demographic characteristics
    - Gender
    - Age
    - Race
    - Regional accent
  - Social characteristics
Selecting the voice: Voice’s gender

- Very little research examines the effect of the ACASI voice’s gender on survey responses
- Interaction of question topic and voice characteristics
  - Respondents’ own gender-based stereotypes, conversational norms, or identities brought to bear when responding (Tannen 1996; see also Schaeffer 2000),
  - Effect on how respondents answer the survey questions
Gender-of-voice evaluation: Effect of voice’s gender on reports about sensitive behaviors

- Index summarizing number of questions respondent reported engaging in behavior more than “0 times”
- Voice’s gender increased level of reporting about sensitive behaviors among the male respondents
Gender-of-voice evaluation: Overview of study design

- Web survey with embedded audio clips
- Raters
  - 56 telephone interviewers employed at UWSC (RR1 = 58%)
- Purpose of survey
  - “to learn about how people evaluate characteristics of voices”
- One male and one female voice
  - Presentation of the voices randomized
- Task
  - UWSC computers equipped with headphones; audio clip played for raters from within survey
  - Listened to one long question from ACASI section on threatening behaviors <1> <2>
Gender-of-voice evaluation: Overview of study design

• Raters asked to evaluate the voice’s
  • Demographic characteristics
    • Gender
    • Race/ethnicity
    • Education attainment
    • Region of the country
    • Age
  • Social characteristics
    • Trustworthiness
    • Friendliness
    • Typicality
• Raters provided their own gender, age, race, region, and educational attainment
Gender-of-voice evaluation: Results for demographics

- 100% accuracy in rating the voice’s gender
  - All raters accurately rated the male voice as male and the female voice as female
- No significant differences in raters’ evaluations of the male versus female voice’s
  - race/ethnicity
  - educational attainment
  - regional accent
  - whether voice sound like it was in its “early 20s”
Gender-of-voice evaluation: Results for social characteristics

![Bar chart showing evaluations of gender-of-voice for social characteristics: Friendly, Trustworthy, Typical. The chart compares evaluations for males and females with significance levels indicated (p < .001, p < .01, p < .05).]
ACASI decision framework

- Decisions have to be made about
  - Selecting the voice
  - Recording the voice
  - Implementing the voice
Recording the voice: During the recording session

- Real-time evaluation of voice during recording
- Coaching of voice talent during session
- Examples:
  - Upward intonation (question sounds like a question)
    - A
    - B
  - Proper pronunciation
  - Proper emphasis
  - Challenges with sensitive questions
  - Pacing
  - Objective tone (“abortion”; “hit your child”)
Implementing the voice

- When and how to offer audio (in addition to text)
  - Require that respondents listen to audio portion for each question and accompanying response categories
  - Allow respondents to turn the audio for all of the questions and response categories completely off
  - Allow respondents to turn the audio for any combination of the questions and response categories off
Implementing of the voice: Summary of past literature

- Audio seems to be preferred but does not have much of an effect on responses
- Audio+text vs. text only
  - Rated as easier to use and more interesting (O’Reilly et al. 1994)
- Audio+text vs. audio only
  - Rated more favorably than audio only (Rogers et al. 1996)
- No Rs turned the audio off in cognitive testing for NSAM & NHSDA (Turner, Forsyth et al. 1998)
- Very few differences for reporting about sensitive behaviors comparing text-only-CASI vs. audio+text-CASI (Couper et al. 2003; Tourangeau and Smith 1996)
Implementing the voice: Results from MYA-4

% leaving full audio on for all 147 Qs

- Total: 39 (N=592)
- Lowest Level Literacy: 46 (N=213)
- Middle Level Literacy: 37 (N=186)
- Highest Level Literacy: 33 (N=193)
Summary

- Importance of carefully selecting the voice for a given study
- Conducting a voice characteristics evaluation
- Evaluation and coaching during recording session
Thank You!

For copies of this presentation or more information, contact:

Kerryann DiLoreto, kdiloret@ssc.wisc.edu

Please visit us at:
www.uwsc.wisc.edu
References