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## Introduction

### Guidelines

**1. Develop the computer-based system(s) that the interviewers will use to administer telephone interviews. Interviewers on interviewing strategies specific to telephone interviewing. 3. Decide whether a subset of survey questions would best be collected in a self-administered section of the interview.**

### References

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**Introduction** If researchers wish to have survey interviews carried out by an interviewer but face-to-face interviews possible, conducting interviews via telephone (either through a landline or a mobile telephone) can be an alternative. Multinational, multiregional, and multicultural ('3MC') surveys use different standards to determine whether telephone penetration is adequate in a study country. For example, the Gallup World Poll generally uses a telephone survey on countries where telephone coverage represents at least 80% of the population. Telephone interviews are generally less costly than face-to-face methods, and can be completed in a shorter amount of time. However, response rates are generally lower, and depending on the available sampling frame for a country, a rigorous telephone-administered sample design is difficult to develop. See [Sample Design](#) for a discussion of the challenges and limitations of a telephone-based sample design. As discussed in [Data Collection: General Considerations](#), 3MC surveys sometimes employ mixed mode depending on individual country constraints. However, it is important to note that mode effects may occur if the survey is carried out by telephone in some countries and face-to-face in others (see [Study Design and Organizational Structure](#) discussion on mode effects). Virtually all questionnaires administered by interviewers in telephone surveys are completed using an electronic computer-based instrument to record survey responses. This data collection mode is most commonly referred to as computer-assisted telephone interviewing (CATI). These guidelines assume that the interviewer will use a computer-based instrument, and will refer to the mode as 'CATI' as such. For additional discussion on the advantages and disadvantages of telephone surveys, see [Study Design and Organizational Structure](#).

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**Guidelines Goal:** To achieve an optimal cross-cultural data collection design by maximizing the amount of information obtained per monetary unit spent within the allotted time, while meeting the specified level of precision and producing comparable results, within the context of a telephone survey.

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**1. Develop the computer-based system(s) that the interviewers will use to administer telephone interviews. *Recommendations***  
Interviewers can conduct telephone interviews from either a central location or remotely. Software systems can be used to distribute sampled telephone numbers, dial telephone numbers, manage call records, and record survey data. When using CATI, it is crucial to design and implement a system that interviewers can use to reliably collect survey data. ***Procedure steps***

1.1 Decide whether interviewers will work in a centralized and/or decentralized location.

1.1.1 Many survey research firms conducting telephone interviews maintain a 'telephone lab,' which is a central calling center where center supervisors oversee a variable number of interviewers. Each interviewer has the electronic instrument, and records responses directly in the electronic file. Interviews can be monitored in real time.

1.1.2 Sometimes, interviewers work from other locations while having access to the electronic system set up at the survey research firm.

1.2 Develop a system and protocol for sample release management, including how cases will be transferred between interviewers when necessary.

- 1.3 Develop a protocol for dialing sampled telephone numbers. Some projects may use CATI systems that can dial telephone numbers automatically, while other projects may elect to have interviewers dial telephone numbers manually. In some countries, it is against the law to use automation to dial specific types of telephone number (in the United States, it is illegal to use automation to dial mobile numbers). If using automation, be familiar with local laws about its use.
- 1.4 Consider the cost structure for telephone calls in each study country. In the United States, respondents are responsible for the cost of incoming telephone calls on mobile telephones. However, in the Persian Gulf, for example, there is no charge, and interviewers based in Nepal were able to telephone Nepali migrant workers living in Gulf countries for a migration survey without any cost to the respondents.
- 1.5 Decide on a telephone number and name to be displayed to the respondents in their caller ID, and whether that number should be available if people call it back.
- 1.6 Develop an electronic survey instrument used to record survey responses. There are numerous CATI software packages. However, it is also possible to use a Web-based survey instrument, which may not be as suitable for complex projects, but would be less expensive. Electronic survey instruments in a telephone survey share many of the same requirements as electronic survey instruments administered in the face-to-face mode. For in-depth discussion of these elements, see [Data Collection: Face-To-Face Surveys, Guideline 3](#).

### ***Lessons learned***

- 1.1 While survey mode can affect survey responses, studies are not unanimous in the direction of the effect observed.
  - 1.1.1 A survey of HPV awareness and knowledge, including sexual behavior, was conducted in Singapore, with half of participants participating via CATI and half through an interviewer-administered face-to-face interview. Few differences in responses between survey modes were found in the information disclosed.
  - 1.1.2 A study in India evaluating accuracy of health data collection through several different interfaces found that telephone interviewing had greatest accuracy in phone interviews when compared to electronic forms on computers and text messaging.
- 1.2 CATI can be particularly useful in a panel study setting, especially when there is frequent contact with respondents. Experiences vary by country, however.
  - 1.2.1 In a study of farmers in Tanzania, researchers gave respondents prepaid mobile phones for the duration of the field period so that they could receive a phone call from an interviewer and complete a survey every three days over a ten-month period, resulting in a high-quality dataset.
  - 1.2.2 Researchers distributed mobile phones to female sex workers in India for use in a diary study on sexual behavior, which resulted in high response rates and high-quality data.
  - 1.2.3 Researchers on a panel study in South Sudan using CATI found that response rates were affected by irregular fluctuations in the mobile network.
- 1.3 Beyond the traditional CATI mode, interviewing via text message has been recently used. In this mode, the interviewer sends individual survey questions by text to the respondent, who sends their responses back by text to the interviewer.

**2. Train interviewers on interviewing strategies specific to telephone interviewing.** *Rationale* The nature of the interaction between the interviewer and the respondent depends on the mode of data collection. Some interviewing strategies

that are accessible in a face-to-face mode, such as interpretation of body language, are not possible to implement over telephone, contributing in part to lower response rates and potential for nonresponse bias. However, there are certain telephone-specific strategies that researchers can introduce to assist interviewers in completing telephone interviews

### ***Procedural steps***

- 2.1 Consider the social context of the study country when hiring interviewers to administer a telephone survey, whether selection of interviewer based on gender or other characteristics will affect response rates. See [2.1](#) in 'Lessons learned' below, as well as [Interviewer Recruitment, Selection, and Training](#) for additional discussion of interviewer recruitment considerations.
- 2.2 Develop an introduction appropriate for the interviewer to read upon contact with the respondent.
  - 2.3.1 The introduction is especially important, and may differ depending on cultural norms. The way the opening unfolds between the interviewer and respondent may have significant implications for both survey nonresponse and data quality. The context of the interview can dictate identification procedures and pace of interview.
  - 2.3.2 Establishing and maintaining rapport is especially important in achieving a telephone survey. Particular attention should be taken in the translation stage to ensure an interviewer script that does not violate cultural norms involving politeness and linguistic encoding of status and social distance.
  - 2.3.3 The introduction can be particularly critical in achieving cooperation in some countries. Previous respondent exposure to the telephone as a survey mode can differ across countries, and there can be discomfort in sharing personal information over the phone.
  - 2.3.4 In countries where there are linguistic differences depending on actors' social status, translations must recognize that interviewers and respondents are strangers, and cannot rely on visual cues to establish social distance and appropriate linguistic level, necessitating the opportunity for some social interaction at the beginning of the survey to establish such social distance.

### ***Lessons learned***

- 2.1 Gender norms of the study country can have a significant impact on response rates in CATI surveys.
  - 2.1.1 In France, researchers have found that female interviewers generally have higher refusal rates in telephone surveys.
  - 2.1.2 In Nepal, a highly gendered society, women generally prefer to speak to other women and men to men over the telephone. However, in a CATI survey using Nepali-based interviewers contacting (mostly male migrant workers in Persian Gulf countries, researchers obtained high response rates using predominantly female interviewers, because of the cultural perception that a woman would not call a man unless it was an important matter.
  - 2.1.3 There is also anecdotal evidence that male respondents in highly gendered countries in the Middle East are more likely to participate in a telephone survey when contacted by a female interviewer.
- 2.2 Immediate identification by name is standard telephone practice in the United States, but is uncommon in China.
- 2.3 Acceptable pace of the interview introduction can vary across even otherwise similar cultural contexts. For an examination of reactions to phone calls in Hong Kong and Beijing found that Beijing residents were more accustomed to a fast-paced, business-like telephone conversation when compared to those from Hong Kong. Similarly, a comparison of Greeks and Germans showed that Greeks prefer to have some social interaction before reaching the main point of a telephone conversation, while Germans prefer to discuss the main point immediately.

- 2.4 Acquiescence bias differs across cultures and can be particularly problematic in a telephone survey, where difficult issues can be exaggerated. For example, in many Asian cultures, people tend to avoid 'no' answers to questions, particularly when there is an asymmetrical relationship between speakers as in a survey interview .
- 2.5 Introductory scripts can differ dramatically across cultures. For example, in Chinese, the use of expressions “please” and “thank you” is not common in daily conversation, and thus implies a large social distance between speakers. The mandated repetitive use of such words in a survey among Chinese speakers would be detrimental particularly in a telephone survey where rapport is especially important, in sharp contrast to a survey in American English, where such phrases are acceptable and expected .

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### **3. Decide whether a subset of survey questions would best be collected in a self-administered section of the interview**

**Rationale** Interviewer-administered telephone interviewing is subject to social desirability biases similar to those in face-to-face interviewing. Interactive Voice Recognition (IVR) is a telephone mode where the computer plays recordings of questions over the telephone to respondents, who then respond by using the keypad of the telephone or speaking the answers out loud. IVR can be used as a self-administered mode (SAQ) to administer a portion of an interview, other than that conducted by CATI, which is particularly sensitive in nature and where accuracy might improve without the presence of an interviewer. It can also be used exclusively as a self-administered mode, with the computer automatically telephoning the respondent and then completing the questionnaire (see [Data Collection: Self-Administered Surveys](#) for further discussion of IVR in a completely self-administered mode). **Procedural steps**

- 3.1 Design the IVR system so that it is technically well-integrated into the CATI system in use by the project, so that switching from the CATI to the IVR system is straightforward for the interviewer.
- 3.2 Decide whether to program the IVR system as touchtone, voice input, or a combination of the two.
  - 3.2.1 When deciding on the programming, consider the target population. Studies in rural India and Botswana found that respondents with less education and lower literacy do better with touchtone, and cited privacy for their preference as well ).
  - 3.2.2 A study in Pakistan found that a well-designed speech interface was more effective than a touchtone system for respondents regardless of literacy level .
- 3.3 Devote sufficient time to the development of a high-quality IVR system to maintain respondent interest and continued cooperation.
  - 3.3.1 The IVR system must have a high quality recording, as the respondent is likely to break off the survey if the quality is poor.
  - 3.3.2 See [Appendix 3](#) for a guide to the development of an IVR system and the associated speech characteristics which require special consideration.

#### **Lessons learned**

- 3.1 Consider the voice used for recording.
  - 3.1.1 In a health helpline project in Botswana, researchers employed a well-known local actress for the IVR recording, and users reacted very positively .
  - 3.1.2 Depending on the social context, using an IVR recording of a man for male respondents and a woman for female respondents may elicit more accurate reporting, particularly of sensitive information.

- 3.2 developed an innovative approach to the challenge that dialectical variation and multilingualism poses to speech-driven interfaces for IVR in India, applicable to other settings as well. In their approach, people from specific villages are recorded during interactions, and their speech is semi-automatically integrated into the acoustic models for that village, thus generating the linguistic resources needed for automatic recognition of their speech.
- 3.3 A survey of teachers in Uganda resulted in a number of useful considerations when designing an IVR system to improve response rates and data quality .
- 3.3.1 The IVR call began with the immediate information that “This is a recorded call from Project X. You are not talking to a real person.”
- 3.3.2 The IVR call provided very specific instructions about whether to use the keypad or to speak.
- 3.3.3 Respondents were initially confused by the automation of the IVR system. Researchers had better results using a chime to get respondents’ attention before the automated voice gave instructions.
- 3.3.4 Leveraging conversational and turn-taking conventions of normal conversation in the IVR system leads to more success than detailed instructions in eliciting desired user behavior.
- 3.3.5 An IVR system which projected a loud voice, with prompts recorded as if the speaker were using a poor phone connection, resulted in a survey that was easier for respondents to follow.
- 3.3.6 When producing the IVR recording, use slow speech to get slow speech—respondents will emulate that and resulting data will be easier to understand.
- 3.3.7 The IVR recording included 3 seconds of silence before the recorded speaker says “thank you” and moves on to the next question, which was reported as well-received by respondents.

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