

Respondent Recruitment, Interviewing, and Training: Lessons Learned from a Spanish Language Cognitive Interviewing Project¹

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Abstract

As the demand for quality Spanish translations of survey instruments increases, cognitive interviewing has become a translation pretesting method of growing utility and importance. However, prior experiences on respondent recruitment, interviewing, and interviewer training are largely based on pretesting English instruments. This paper discusses the lessons learned from a project undertaken by the U.S. Census Bureau to cognitively test the Spanish language translation of selected questions in a survey. We draw upon findings from RTI interviewer debriefings and observations. Results and discussion focus on the lessons learned, recommendations, and implications for recruiting Hispanic participants with limited English proficiency; administering cognitive interview probes in Spanish; and the logistics of cognitive interviews and training interviewers to conduct them.

Key Words: Cognitive interviewing, pretesting, Spanish translation, American Housing Survey

1. Introduction

Among questionnaire pretesting methods, cognitive interviewing examines the thought processes of the participants and the manner and degree to which they comprehend terms and questions. Findings from cognitive interviews aid in the understanding of factors that affect the quality of responses provided to survey questions and in the development of recommendations that can be made to improve the questions. Spanish translations of survey questions may also be pretested using cognitive interviewing methodology, as evidenced by recent pretesting studies of Spanish language forms and surveys (Goerman et al., 2007, Carter et al., 2009, and Goerman and Caspar, 2010).

The growing immigrant population in the United States from Spanish-speaking regions has led to an increasing demand for high quality Spanish translations of instruments (U.S. Census Bureau, 2009). To ensure that the translated documents convey the intent and effect of the English text, best practices suggest pretesting translations. Of the available

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questionnaire pretesting methods, cognitive testing is recommended in the Census Bureau Pretesting Standard (Pan and de la Puente, 2005; U.S. Census Bureau, 2004).

While cognitive interviewing in Spanish is a developing method in the field of survey methodology (Goerman and Caspar, 2010), leading research on cognitive interviewing has been largely based on pretesting English instruments. Approaches to cognitively testing English language instruments may not always apply to Spanish language instruments. When non-English language cognitive interviews are conducted, issues related to language, culture, and respondent knowledge interact and interrelate (Carter et al., 2009). Therefore, lessons learned from cognitive interviewing research in Spanish are important for understanding this method of growing utility. This paper discusses the lessons learned from a project undertaken by the U.S. Census Bureau to cognitively test the Spanish language translation of selected questions in a survey. We draw upon findings from RTI interviewer debriefings and observations and discuss recruiting and screening Hispanic participants who speak little or no English, conducting cognitive interviews in Spanish, and training bilingual interviewers.

In the following sections, we provide background information and the method that we used for this study. We report on the results and conclude with a discussion and limitations of this research.

2. Methods

The American Housing Survey (AHS) is the largest regularly collected national housing survey in the United States and is conducted by the U.S. Census Bureau for the U.S. Department of Housing and Urban Development (Carter et al., 2009). The lessons learned came from the cognitive testing of the Spanish language translation of selected questions in the AHS. A total of 128 in-depth cognitive interviews were conducted. Among them, 96 were completed in Spanish with adult Hispanic participants who spoke little or no English. To provide a baseline for comparison, 32 cognitive interviews were conducted in English. The primary objective was to pretest the Spanish translation in preparation for its bilingual data collection in 2009. Because the entire AHS instrument was too long for examination in a single cognitive interview, two subsets of questions were identified for testing: Phase 1 contained questions directed to homeowners and Phase 2 included questions for renters. Two rounds of cognitive interviews were conducted for each phase. In the second round, recommended changes based on findings from the first round were tested.

The interviews were completed in five sites across the country: Washington, D.C. area, Illinois, North Carolina, Texas, and New York. These sites were selected based on the geographic proximity of the interviewing team and their diversity in housing structures and Hispanic population. Eligible participants in the Spanish language interviews were native Spanish speakers who spoke little or no English². They were recruited based on four geographic regions of origin: Mexico, Central America, South America, and the Caribbean. Because participants for this study had to be either monolingual or of limited

² English proficiency of participants was determined through their responses to a screening question. The screening question asked participants to self-report whether they speak English very well, well, not well, or not at all. When a Spanish speaker self-reported that he or she spoke English not well or not at all, this individual was classified a qualified respondent.

English proficiency, the main challenge encountered during the recruiting process was recruiting Spanish speakers with specific housing arrangements, including mobile home owners who were still paying a mortgage, recipients of rental subsidies, homeowners of condominiums, and holders of a lump sum home equity loans.

Seven Spanish language experts were trained and conducted cognitive interviews in Spanish. They were highly skilled and experienced cognitive interviewers who had conducted cognitive interviews in Spanish on multiple studies that covered a variety of topics. A comprehensive 2-day in-person group training was held, followed by three additional trainings for each subsequent round of cognitive interviewing. The trainings covered research objectives, cognitive interviewing techniques, study protocol and data security, and practice interviews. Cognitive interview protocols were designed to elicit feedback from homeowners as well as renters through a 60–90 minute face-to-face cognitive interview, which was preceded by an informed consent procedure. If the participants agreed to be audio-recorded, their consent was obtained both in writing and verbally. After the interview, a \$40 honorarium was given to the participants.

3. Results

3.1 Participant Recruitment

Participant recruitment consisted of identifying, screening, and enrolling participants who met a set of characteristics determined to inform the goals of the cognitive study. In order to reflect the diversity of the potential users of the Spanish language version of AHS, the recruitment goals could have represented either: (1) the general population who would be most likely to respond using the Spanish language instrument; or (2) the makeup of such past respondents in the actual survey. The latter would have to be data-driven, that is, the recruitment goals were established on the basis of the demographics of survey respondents in previous data collection efforts.

For the AHS, recruitment goals were based on general population distribution of the countries/regions of origin of Spanish-speaking population in the United States. The highest number targeted were respondents from Mexico, followed by Central and South America, and then the Caribbean. We also determined five sites for recruiting and interviewing: the Washington, D.C. area, Illinois, North Carolina, Texas, and New York. These sites were selected based on the geographic proximity of the interviewing team, the diversity of their Hispanic populations, and the presence of housing-related characteristics required to test the selected AHS questions. Specific housing arrangements were unique requirements for this project. Eligible respondents represented various housing structures (e.g., houses, apartments, mobile homes). Phase 1 questions focused on homeownership and required the recruitment of homeowners with an outstanding mortgage or loan. Phase 2 questions focused on rental housing and required the recruitment of both renters in rent-controlled areas and those receiving rental subsidies. Demographic diversity such as age, gender, and educational attainment was also sought.

Based on our experiences, recruiting limited English proficiency and immigrant participants was consistently more challenging than recruiting English-speaking participants. Men were also harder to recruit than women. We found that these expected challenges were compounded by the challenges of recruiting the specific housing arrangements required by the study design. For example, we learned that recipients of

rental subsidies tended to be bilingual and were represented by few countries or territories of origin, such as Puerto Rico. Similar observations about English proficiency and country/territory of origin were made for owners of condominiums. The biggest challenge associated with recruiting owners of mobile homes was to locate an owner who was still paying a mortgage or loan. Some mobile home owners could not qualify for a mortgage in the first place for various reasons. Others had already paid their mortgage in full because the mortgage payment was much lower than that for a house. Among mortgage holders, few reported having a lump sum home equity loan or knowing what a lump sum home equity loan was.

As a result, we implemented an adaptive recruiting strategy. We identified the strengths and weaknesses of recruiting for specific categories at each site and adjusted site-specific goals when needed. In addition, we allowed a degree of flexibility in setting the target number of participants to be recruited for the recruitment goals. That is, we created a few hard (exact) numbers to reach within some categories while allowing some flexibility within the rest. For example, demographics of participants might be more flexible as long as they could represent the desired housing arrangements. Alternatively, ranges could be established instead of hard numbers. For example, we managed to successfully recruit in North Carolina a total of six mobile home owners who had not paid off the loan on their homes and were Spanish monolinguals. We knew from experience that Spanish monolinguals were hard to reach, but the requirement of finding mobile home owners with outstanding mortgages or loans made recruiting even more challenging. As a result, we had to invest a lot of resources to recruit these participants.

Adaptive recruiting strategies must be implemented in the context of a well-tested recruitment process. The goal of following an organized recruitment process is to minimize risks threatening the quality of the cognitive interviews and schedule for completing them. For the AHS project, we followed a four-step process. Steps may be repeated and the order of steps may change as recruiting priorities change:

1. Set recruitment goal(s) and target(s) for the team and individual recruiters.
2. Recruit and screen potential participants.
3. Share lessons learned with the team of recruiters.
4. Adjust recruitment target(s) or goal(s) as needed.

After recruitment goals are determined (as discussed earlier in this section), team leaders can distribute recruitment targets evenly among individual recruiters. Alternatively, individual recruiters can recruit a large pool of participants and then determine who should be interviewed. The first method renders results more quickly but requires more close coordination and monitoring, and the latter method better controls the recruitment targets. Depending on the scope of the project, both methods can be beneficial. For the AHS, we knew that recruiting a large pool of respondents would be time prohibitive given the length of the field period. Thus, we assigned a personal target for individual recruiters based on their geographic locations and strengths, such as ties to the local community. The team of recruiters met regularly and adjusted personal targets based on lessons learned.

To ensure participants eligibility and attainment of recruitment goals, a screening questionnaire must be developed. For the AHS project, the screening was conducted using a short scripted questionnaire that documented demographic and other information, such as age, gender, education attainment, and owner/renter status. Because potential respondents using the AHS Spanish language questionnaire are likely to be native

Spanish speakers with limited or no English proficiency, the screening questionnaire also asked the potential participants to self-report their proficiency level with English and Spanish.

An implied step within the recruitment process is to use recruiters who demonstrate characteristics of successful recruiters. During the recruitment process, we established a profile of a successful recruiter, as follows:

- Bilingual in Spanish and English and culturally competent, demonstrated by experience with the target population. We learned that trust is an important consideration. A recruiter who spoke Spanish and was sensitive to the culture of the participants seemed to be more successful in developing rapport with potential participants than recruiters who did not speak Spanish well or had limited exposure to this population.
- Experienced in recruiting and screening and the local area.
- Properly trained on the specifics of the study, including restrictions on recruiting professional respondents and data security procedures.
- Experienced in interviewing, as much as possible.

For the AHS project, we used RTI language methodologists and a field interviewer. The language methodologists belong to RTI's Program for Research in Survey Methodology (PRISM), part of the Survey Research Division (SRD). They are native Spanish speakers and experienced translators and cognitive interviewers. Because knowledge of the local area facilitates recruiting, we added an experienced bilingual field interviewer to assist in recruiting at the Texas site.

Based on our prior experience, we used a variety of recruitment methods simultaneously: advertisements using mass media, printed advertisements posted in public places, and word of mouth. For the AHS study, we placed advertisements on the Internet, on radio, and in Spanish language newspapers. These advertisements worked best in larger cities. We also placed flyers in public places frequented by Spanish speakers, including ethnic grocery stores, community centers, Public Housing Authority and mobile park offices, laundromats, libraries, schools, and local churches.

In general, we found that word of mouth was the most effective recruitment method. It was the most direct way to get access to this hard-to-reach population. We asked for referrals, worked closely with community leaders and local community centers, and interacted with potential participants in person. We learned that trust was hard to gain among potential participants because of the perception of being targeted. For example, we learned from the North Carolina site that regardless of whether potential participants were undocumented or not, police raids were a major concern to them. Recruiting in person in the community helped establish trust because it allowed for face-to-face interactions. However, although word of mouth was the most effective recruitment method, it was least efficient because several in-person trips were sometimes required to successfully secure respondent participation in the study.

3.2 Cognitive Interviewing in Spanish

Cognitive interviewing began with the development of interview protocol guides. In the AHS project, for practical reasons, protocol guides were developed first in English and then translated into Spanish. Although the protocol guides were first developed in

English, their design took into account issues of language and cultural appropriateness specific to Spanish language interviews.

The development of the cognitive interview probes considered previously researched models and addressed issues related to comprehension of the questions and terminology, familiarity/knowledge of mortgage concepts and public assistance, recall of relevant information, and the response process. The protocol guide used concurrent probing with structured or scripted probes while giving interviewers the flexibility to use spontaneous emergent probes when needed. The scripted probes included comprehension probes, paraphrasing, recall probes, and Spanish terminology probes. Emergent or spontaneous probes were used based on respondents' behavior or prior answers.

Cognitive interview protocol guides are most often constructed as paper-and-pencil instruments to facilitate interactions in a face-to-face mode³. Our experience showed that paper-and-pencil instruments are also easy to carry and produce, less intimidating to respondents (many of whom have just arrived in this country), and can be destroyed completely at the end of the study. Because the AHS is a computer-assisted personal interviewing (CAPI) instrument, we had to adapt the survey questions into a paper and pencil protocol guide⁴.

One of the benefits of CAPI is its ability to handle and incorporate complicated routing instructions. Such instructions must be converted into simple and easy-to-follow navigation paths in a paper-and-pencil protocol guide. We learned that if the protocol guide did not include visual elements as if it were a mail survey, interviewers had difficulty following the intended navigation path, interrupting the natural flow of the cognitive interview. Visual elements utilized included sequential numbering of the survey variables, simplified routing instructions, and visual guides such as arrows and varying fonts.

Although most probing questions in the protocol guide worked well, the repetition of similar types of probing questions made some respondents feel that they were being tested rather than interviewed. These were probing questions inherent to any cognitive interview: "What do you think they mean by ___?"; "How do you understand ___?"; "What do you think the term ___ means?" Cognitive interviewers handled this issue by reassuring the respondents that their answers would be valued and greatly appreciated. They also paraphrased or used spontaneous probes to avoid repetition.

Another challenge was getting participants to talk about their thought processes. Our interviewers reported that when they administered the scripted probe "How did you decide what to answer?" for the first time, many participants remained quiet and puzzled. A few even became suspicious of the intent of the probing because they were not sure what the interviewers were trying to do. A couple of respondents reassured the interviewers that they were being truthful or responded, "because you are asking me." Although participants seemed to become "trained" as the interviews progressed, discussing their thought processes was still a challenge.

³ Face-to face is the most common mode of cognitive interviewing, although other modes are feasible (Willis 2005).

⁴ We did not program the protocol guide into CAPI because it would require a much longer development time than could be practicably done.

Additionally, topical knowledge of some AHS survey questions selected for testing presented major problems in the Spanish interviews. These problems may have been directly associated with respondents' degree of familiarity with mortgages and loans, financial terms, and various government programs. For example, few respondents knew what "lump sum home equity loans" were or the difference between various public assistance programs. Although we were able to get their perspective in terms of the translation, at times, it was difficult to isolate the knowledge issue from translation problems. For example, the term "mortgage" is often translated as "hipoteca" but our cognitive interviews showed that participants associated the word "hipoteca" mainly with foreclosures, or at times, second mortgages. The population we worked with had little or no experience with various financial products or had no experience talking about them.

3.3 Bilingual Interviewer Training

The interviewers agreed that formal training at the beginning of each round of cognitive interviewing was helpful. We define a formal training session as one that provides details on the background and objectives of the project and expectations for the work, offers well-developed training modules and materials, and allows for trainee interactions. In the AHS project, we ran the first training as a 2-day in-person group training, because such training maximizes all of the aforementioned benefits. The training modules covered research objectives, cognitive interviewing techniques, study protocol and data security, and practice "mock" interviews. The training for the second round of interviewing was shorter and conducted by videoconference or telephone. In this round, certain information was presented in refresher form, such as the study background, data security and confidentiality information, and administrative procedures.

Our trainees were experienced cognitive interviewers. Of particular benefit to them was how formal training facilitated the sharing of experience. For example, our interviewers shared how their experiences from previous studies informed the current work and requirements and indicated what was new to them. More importantly, they discussed in detail the translation of the protocol guide and survey questions to be tested. This discussion helped them understand the intent of the survey questions, the translation, and the cognitive interview probes. They also found the multiple practice interviews helpful. Although our trainees were experienced with cognitive interviewing, participating in formal trainings increased their buy-in and compliance with the research protocol and procedures.

Part of the training discussed the scope and expectations for the individual case reports documenting the results from each cognitive interview. In the AHS project, we developed a case report template so that both the trainees and the persons in charge of reviewing the reports could concur on the content. In addition, we discussed the level of detail required in the case reports and the expectations of those in charge of reviewing the reports. For example, the reports were expected to include direct quotes from the participants, spontaneous probes, and observations that helped the reader get a sense of what transpired during the interview. We also provided examples of good and poor interview reports so trainees could compare their differences. Finally, we listened to trainee feedback and suggestions on how to improve the process. After the training, the trainees felt that even more time and detail should be devoted to this topic because the reports directly inform the reporting of findings.

3. Discussion and Conclusion

This paper focuses on lessons learned that will help interviewers do a better job and the implications of those lessons. However, it has several limitations. First, our lessons learned are qualitative. Future research should include assessments of cognitive interview data to determine if the implementation of the lessons improves data quality. Second, the Spanish cognitive interviewing method is still in development. We identified several key areas for future research and until more can be done, some challenges inherent to the method remain.

Recruiting participants with limited English proficiency is always more challenging than recruiting English-speaking respondents. Our lessons learned show that projects should follow a well-tested recruitment process, have an adaptive recruiting strategy, use recruiters who demonstrate characteristics of successful recruiters, and implement a variety of recruitment methods. Our recruitment benefited from all of these approaches. In addition, recruiting for participants with specific housing-related characteristics such as mortgage holders who have a lump sum home equity loan would have required a much more directed effort and longer time. The challenge associated with recruiting this type of respondent might have reflected the reality among this population. That is, there may be few people of limited English proficiency who actually had those housing arrangements. In the future, consulting housing survey data about which cities or regions may have more of these types of respondents might be helpful in recruiting these respondents.

By investing a lot of resources, we successfully recruited six mobile home owners who were still paying a mortgage or loan. If the target number had been in ranges, perhaps as we became more aware of the amount of resources needed to recruit these respondents, we could have aimed to reach for the lower range and invested some resources elsewhere. Based on these lessons learned, we recommend using recruitment targets goals, but allowing room for change and adjusting expectations as we learn about the realities of the target population in the field period. An important lesson learned from cognitive interviewing in Spanish is the efficacy of some of the probes often used in cognitive interviews in English. Respondents felt like they were being tested and the design of concurrent probing for this study might have reinforced this impression. We felt that a degree of conversational probing might have worked better, especially for respondents with lower educational attainment⁵. We recommend conducting more research to establish which probing questions and techniques tend to be most effective in cognitive interviewing in Spanish.

Additionally, we have learned that it was difficult to isolate whether the difficulties respondents exhibited with survey items were caused by knowledge issues or translation problems. The difficulties observed in our respondents' understanding of the survey questions may have also stemmed from a lack of familiarity with surveys and cognitive interview probing questions. Thus, it is important to conduct future research to investigate how best to pretest survey questions that require topical knowledge through the cognitive testing methodology. Methods of designing the visual layout of the cognitive interview protocol guide to represent CAPI instruments in paper-and-pencil formats is also a lesson learned that will help interviewers do their job better.

⁵ About a third of the respondents interviewed in Spanish had some formal education, but did not have a high school diploma.

In terms of training, our lessons learned show that, regardless of the experience level of the interviewer, trainings are necessary and essential. They should also be formal—that is, include a combination of well-developed modules, discussions, and practice interviews. We suggest the following recommendations for training cognitive interviewers. Some of the topics can be developed into core training modules for use on multiple projects and combined with topical modules with project specific information.

- Discuss intent of each survey question and the definitions for terms used in those questions. This reduces interviewer errors and increases compliance with the research protocol and procedures. For example, the interviewers were trained on the definition of “manufactured/mobile home” so that everyone understood it and referred to it the same way.
- Train extensively on probing, specifically the intent of the probes during cognitive interviews, when to probe for more information, and when to stop probing.
- Communicate scope and expectations for the interview reports. Although we covered this topic in detail and provided examples of good and poor interview reports, trainees felt that even more time and detail should be devoted to this topic. Clearly, discussions about interview reports are important portions of the training and ought to be reinforced throughout the duration of the research project.
- Simulate actual interviews so interviewers become familiar with what could happen during a real interview. This includes holding multiple practice “mock” interviews using the same materials that would be used in the actual interview, such as the interview protocol guide and forms.

We have found that formal trainings increase interviewer buy-in and compliance with the research protocol and procedures because the scope of the project, researcher’s expectations, and needs can be addressed. Follow-up trainings at beginning of the second round of interviewing offer trainees the opportunity to ensure understanding of any changes in scope and expectations, to share resources, and to champion one another’s efforts. Some of the training topics we recommend can be restructured. For example, we scheduled four practice “mock” interviews at the initial training, but this number can be reduced to allow more time to review probing questions and changes made to the protocol guide. However, without advance planning, trainings can be cost prohibitive. The amount of time devoted to designing and developing training materials also depends on the amount of resources the researcher and project sponsor are willing to devote this task. Therefore, budgeting for activities related to training ought to be considered during the design phase.

These lessons learned have several implications. First, trust needs to be established in the local Hispanic community if cognitive interviewing in Spanish continues to be an area of interest. Second, more research is needed on methodological issues specific to Spanish cognitive interviews, including the need for more culturally appropriate probes and addressing knowledge vs. translation issues. Finally, cognitive interviewer training can be optimized by creating core modules that can be used across research studies and project-specific topical modules.

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