



Catalogue no. 11-522-XIE

**Statistics Canada International Symposium  
Series - Proceedings**

**Symposium 2004: Innovative  
Methods for Surveying  
Difficult-to-reach Populations**

2004



## ASSESSING COMPREHENSION OF TRANSLATED QUESTIONNAIRES WITH QUALITATIVE METHODS

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### ABSTRACT

The purpose of survey instrument translations is to achieve functionally equivalent and culturally appropriate versions of the original instruments. Once a translation is complete, the instrument needs to be pretested just as English questionnaires are. Qualitative research (e.g. focus groups, cognitive interviews) provides good vehicles for assessing comprehension and determining the suitability of the translated version for different national origins and varied levels of education. This presentation discussed the goals of qualitative testing of translated questionnaires, the problems typically identified, and the challenges in finding solutions that preserve the intent of the original instrument, while addressing dialect and educational variation.

KEYWORDS: Cognitive Interviews; Focus Groups; Qualitative Research; Questionnaire Translations

### 1. INTRODUCTION

The purpose of instrument translation is to produce instruments that maintain equivalence of measurement across languages, to achieve a functionally equivalent and culturally appropriate version of the original instruments. In the case of instrument translations into Spanish in the United States, one concern is to produce a translated version that works equally well for people speaking different national varieties or dialects of Spanish. In addition, Spanish-speakers who need to or choose to be interviewed in Spanish have, on the average, a lower level of education than the population that answers the English version.

Regardless of the translation methodology used, once a translation is complete, testing of the instrument needs to follow, just as it is done for the source language version. Qualitative research such as focus groups or cognitive interviews are good vehicles for assessing comprehension and determining the suitability of the Spanish version for use with speakers from different national origins and varied levels of education. Each of the two methods is useful for different purposes. While cognitive interviews help us understand how respondents process the translated questions, focus groups help us look into issues of national or regional language variation. Both methods allow us not only to determine which items work and which present problems, but also why certain items do not work.

This presentation discussed the goals of qualitative testing of translated questionnaires, the problems typically identified, and the challenges in finding solutions that preserve the intent of the original instrument, while addressing dialect and educational variation. Examples from a variety of surveys in the U.S. were presented.

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## 2. ISSUES TO CONSIDER IN TRANSLATING QUESTIONNAIRES FOR SPANISH-SPEAKING IMMIGRANTS IN THE U.S

A number of issues need to be considered in producing questionnaire translations that work well with a variety of Spanish-speaking respondents in the U.S., such as national origin, length of time in the U.S., level of education, level of acculturation, and prior experience with surveys.

First, Spanish-speaking immigrants to the U.S. come from a large number of countries, each with its linguistic peculiarities. Latin America includes 20 Spanish-speaking countries, and 95 percent of the U.S. Spanish-speaking Latin American immigrant population comes from ten of those countries. Therefore, national/regional variation is an important element to consider in questionnaire translation. Not only are there different vocabulary choices but also differences in question syntax. In some countries there is also regional variation within, particularly in some vocabulary choices.

The length of time an immigrant has spent in the U.S. may determine what reality the respondent considers when processing and answering a question. While the length of that time influences the degree of acculturation of an immigrant, it is not the only determinant. Some live in immigrant enclaves where life is, along many dimensions, more similar to what it was in their country of origin than what it is like for mainstream Americans. For instance, this is true in urban Mexican neighbourhoods in large U.S. cities, where an immigrant can function in Spanish for years and frequent only Mexican stores and institutions. The level of acculturation of the survey population will determine how some terms need to be translated, and whether the terms to use are those used in the country of origin or others adopted after immigration. For instance, to elicit level of education of the respondent it is important to be aware that schooling in Latin America varies by country in number of years in each cycle (primary, secondary) and nomenclature. A term like “secundaria”, apparently a perfect translation for “secondary school”, covers grades 7 through 9 in Mexico, goes through 12<sup>th</sup> grade in Guatemala or Argentina, and is not used at all for any level of schooling in Puerto Rico.

There are concepts and the words to name them that exist in the immigrant’s country of origin but were not present in their everyday vocabulary, generally because of social class. For terms like insurance or taxes, for instance, many Mexican immigrants use anglicisms, as these concepts become a part of their new day-to-day reality in the US. They don’t use ‘seguro’ for insurance, but instead use ‘aseguranza’. They don’t use ‘impuestos’ for taxes, but instead use ‘taxas’.

Comprehension is sometimes impaired by the use of terms that have no cultural reality for respondents. This is the case when a question asks about a specific concept that respondents are not familiar with. A good example is the American concept of foster care. Many surveys in eliciting family relationships ask about the presence of foster children in the household and this is a concept that cannot be easily translated into Spanish. In Latin America children who cannot be raised by their parents, due to financial reasons, illness or death, or other type of absence, are often raised by relatives or family acquaintances. In addition to informal arrangements, there are a variety (different in different countries) of formal and legal arrangements for taking care of children who would otherwise be wards of the state. Not all countries have arrangements such as foster care in the U.S., where a child is placed in the temporary custody of one or more adults while remaining a ward of the state. Therefore, there are no good ways to refer to *foster care* in Spanish.

Latin American immigrants who completed more than secondary education in their country of origin either arrive to the U.S. with some knowledge of English or soon start learning it. After a few years they are generally ready and willing to be interviewed in English. By contrast, those immigrants who have less than a high school education in their country of birth, often come to the U.S. with no knowledge of English and the process of learning English and linguistic acculturation is much slower. They end up constituting the majority of those who are interviewed in Spanish. Thus, the translated instruments need to use a level of language that can be comprehended by respondents with lower levels of education, sometimes very low. It is not unusual to find immigrants – particularly those older or raised in rural areas – with less than middle school education.

Reading level of a Spanish text cannot be assessed the same way as it is done in English. Determining the extent to which a Spanish text can be comprehended by someone with a specific number of years of schooling is not done in

Latin America and there is no software available to do it in the US. Length of words does not correlate to complexity of meaning in Spanish.

Finally, recent immigrants from Latin America – particularly those with low education – have little or no previous experience with surveys. This also should be kept in mind when preparing translated versions of questionnaires for this population. The ability of retaining four or five response categories as they are read is an exercise that requires practice.

### **3. QUALITATIVE TESTING OF TRANSLATED QUESTIONNAIRES**

Regardless of the translation methodology employed, a Spanish questionnaire will benefit from qualitative testing. The issues raised earlier should be explored in this phase: comprehension and ability to answer. Are the terms that bilingual translators – different from the target population if by their bilingualism if nothing else – come up with understood and processed well by respondents? Is the complexity of the questions too much for immigrants with low levels of education.

#### **3.1 Focus Groups and Cognitive Interviews**

Often used methods for qualitative investigation of instrument comprehension include focus groups and cognitive interviews. In either of these one can administer parts or entire instruments, probe for understanding, present hypothetical situations or vignettes, elicit definitions and examples, and try out alternative phrasing or wording.

Focus Groups are a good vehicle for identifying national variation versus idiosyncratic language differences if in a group one has Spanish speakers from two or three different countries. Focus groups give us access to larger numbers of respondents than individual interviews do, but the latter allow the researcher to probe deeper and cover more ground than in a group.

Cognitive interviews provide a glimpse into the respondent's question comprehension and answering process. They can be conducted as think-alouds in which the respondent says what s/he is thinking as s/he reads and answers questions. Probes used can be concurrent or retrospective. Or the cognitive interview can follow the format of an open-ended pretest, where questions are asked without offering response categories. This often permits us to see how respondents interpret questions more clearly than when they select one of several responses. For instance in a long frequency question that began with "How frequently would you say...." and went on to describe a complex set of circumstances, some respondents lost track of the beginning of the question and were answering – in the open-ended format, with a yes or a no.

Open-ended pretesting in this type of situation prevents us from believing that respondents' ability to choose a response option implies comprehension. It is also useful to elicit response categories we may not have thought about in designing the question.

#### **3.2 Comprehension Issues Uncovered via Qualitative Methods**

Some examples from recent focus groups and cognitive interviews may illustrate the types of problems typically uncovered, such as questions that are cognitively difficult for respondents, vocabulary not understood as intended, questions not understood as intended, and culturally unknown concepts.

The following item comes from a recent questionnaire on bioterrorism preparedness.

##### **English version:**

How much do you think the people making plans to deal with terrorist attacks in your community know about the concerns you would have and the information you would want in these sorts of situations? Do you think that planners know a great deal about your concerns and information needs, a lot, a moderate amount, a little, or nothing at all?

**Spanish translation:**

¿Qué tanto cree que las personas que están haciendo planes para enfrentar ataques terroristas en su comunidad saben acerca de las preocupaciones que usted tendría y la información que usted querría tener en esos tipos de situaciones? ¿Cree usted que las personas a cargo de los planes saben muchísimo, mucho, algo, un poco o nada con respecto a sus preocupaciones y a la necesidad de información que usted tendría?

In cognitive interviews, some respondents thought the question was asking about people making plans to perpetrate terrorist attacks. Upon probing, no specific words had been misunderstood, but the length and complexity of the entire question had only let some words stay in respondents' minds, and apparently "to deal with" (translated as 'enfrentar', to confront) was not among them.

In a recent focus group with Hispanic high school seniors in Chicago, the topic of discussion was community colleges. We knew from prior research that to refer to 'college' in Spanish the best option was to say "Universidad o 'college'". We knew to stay away from the Spanish term 'colegio' which can mean elementary school in some countries, secondary school in others, and actually means college in Puerto Rico. In this specific focus group, however, we found out that these more acculturated youth only used 'college' when speaking Spanish to refer to community colleges, never to 4-year institutions.

Spanish terms that are not used by low education immigrants are often not understood either, as shown in focus groups we conducted for a sex survey years ago. When asked about the meaning of 'relaciones sexuales vaginales' (vaginal sex), several Latin American males indicated it meant sex between lesbians: "vagina with vagina".

A recent survey tried to elicit respondents' concerns about a hypothetical smallpox outbreak. The word smallpox had been translated as 'viruela'. In cognitive interviews this was found to be understood as intended by several respondents without problems among low education participants. However, in other interviews a pattern began to emerge of respondents not finding smallpox threatening. Upon probing it was discovered that 'viruela' is used in some countries to refer to both smallpox and chicken pox. Since smallpox has been eradicated, any references these immigrants remembered hearing were for chicken pox, hence their lack of concern: we all have to get it some time, no big deal. In other countries, including the countries of origin of the translation team, two separate terms exist for chicken pox and smallpox: 'varicela' and 'viruela'.

#### 4. FINDING SOLUTIONS

In addition to producing a translated instrument that, whenever possible, utilizes terms that are understood by the largest number of immigrants, i.e. simpler and non-regional terms, survey designers should be prepared to implement solutions after learning of comprehension problems during qualitative testing.

Ideally, the source language or original version should be open to modification in order to allow for changes that make the translated version work better, while not losing comparability across languages. That is, serious consideration should be given to making changes in the English version if needed. Such changes could consist of breaking an overly complex question into easier to process shorter sentences, or substituting examples that do not work well in the target language with others that are more culturally neutral.

For some terminology, there are no alternative terms to use that will be widely understood by respondents with low levels of schooling. When qualitative research shows this to be the case, yet the question is important and needs to be asked, the researcher should be ready to provide definitions for the unfamiliar term.

For terms that are not known in Spanish by the population, it may be necessary to maintain the English term in the Spanish translation. This is also true when the translation of a term into Spanish, though accurate, evokes a meaning different from that intended.

However much effort is put into producing and testing a translation that minimizes the use of alternative terms for respondents of different national origins, occasionally the survey designer will need to accept the need to use alternatives. In those cases, interviewers should not be put in the position of having to decide which term to use

with what nationalities. Instead, both terms should be offered to all respondents.

In closing, a reflection. When qualitative research shows that respondents with very low levels of education are unable to understand particular items, researchers sometimes dismiss those cases as outliers. They won't have much impact on the overall survey results, they feel. While this may be true for English-speakers, if any survey results will be analyzed by subgroup of the population, the issue may become truly important and statistically significant when analyzing the data collected from Hispanics, as the proportion of lower education respondents (due to the impact of immigrants) will likely be substantially higher than among non-Hispanics.