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**Census Bureau Guideline for the Translation of Data  
Collection Instruments and Supporting Materials:  
Documentation on how the Guideline Was Developed**

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# **Census Bureau Guideline for the Translation of Data Collection Instruments and Supporting Materials: Documentation on How the Guideline Was Developed**

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**Abstract:** The Census Bureau developed guidelines for the translation of data collection instruments and supporting materials in order to ensure that such documents translated from a source language into a target language are *reliable, complete, accurate, and culturally appropriate*. In addition to meeting these criteria, guidelines were developed to ensure that translated Census Bureau data collection instruments also have *semantic, conceptual, and normative equivalence*. The guideline recommends that the translation of data collection instruments from a source language into a target language be conducted using a *translation team*. The guideline relies on the cross-cultural and survey methodology research literature and specifies and describes five steps that comprise the *translation process*. These steps are: **P**repare, **T**ranslate, **P**retest, **R**evise, and **D**ocument.

**Key Words:** Survey translation; cross-cultural issues in survey design; data quality; non-English speaking populations

## Background

The increasing need for non-English language data collection instruments and other survey materials is clear given recent figures. The Census 2000 Supplementary Survey<sup>1</sup> revealed that, nation-wide, there are approximately 45 million people aged 5 years and older who speak a language other than English at home. This represents about 18 percent of persons in this age group. Of these 45 million people, over 10.5 million either speak English "not well" or "not at all."<sup>2</sup>

It is important to note that the national figures tell only part of the story. For example, according to data from the Census 2000 Supplementary Survey, there are counties where the percentage of people aged 5 and over who speak a language other than English at home is far greater than the national figure of 18 percent. For instance, in San Francisco County, California the comparable figure is almost 46 percent, in the Bronx Borough in New York it's slightly over 54 percent, and in Starr and Zapata Counties in Texas the comparable percentage is 93 percent.<sup>3</sup>

While Spanish speakers account for about 60 percent of the 45 million individuals who reported speaking a language other than English at home,<sup>4</sup> the necessity for data collection instruments in languages others than English and Spanish, especially for the decennial census, cannot be ignored. Other than size, factors such as differential undercoverage and geographic concentration of non-English speaking population should be considered in our dialog regarding the need for non-English language data collection instruments. It is also essential, where appropriate, to develop and pretest translations of data collection instruments and other survey materials into languages other than Spanish.

Obtaining high-quality data from households where English is not the home language and where some or all of its members have a limited knowledge of English requires more than just having a correctly translated data collection instrument. Recent research on the Spanish language American Community Survey computer assisted personal interview instrument indicated that some correctly translated questions still pose conceptual problems and other difficulties for

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<sup>1</sup> The Census 2000 Supplementary Survey universe is limited to the household population and does not include the population living in institutions, college dormitories, and other group quarters.

<sup>2</sup> Li R.M., McCardle, P., Clark, R.L., Kinsella K. and Berch, D. eds. *Diverse Voices—Inclusion of Language-Minority Populations in National Studies: Challenges and Opportunities*. National Institute on Aging and National Institute of Child Health and Human Development. Bethesda, MD: 2001.

<sup>3</sup> These data were obtained from standard tables: *QT-02. Profile of Selected Social Characteristics: 2000* generated by the American FactFinder, September 18, 2001.

<sup>4</sup> Li R.M. et al. 2001

Spanish-speaking respondents.<sup>5</sup> This finding supports the need for conducting cognitive testing on all household data collection instruments, not just English language instruments as is currently the practice at the Census Bureau.

### Research Conducted to Support Guidelines

An important aspect of the research undertaken by the Census Bureau to develop the translation guideline was a search of documents pertaining to the translation of data collection instruments available on the World Wide Web. This search revealed that the information available is limited. Available guidance is generally included or incorporated in documents developed for other purposes such as delivery of social or health services and the translation of text in general (surveys are not usually mentioned explicitly). Other advice on the conduct of translations come from for-profit and non-profit organizations and professional translators engaged in activities such as the translation of legislation.

The results of this search also indicate that a handful of key international statistical agencies such as Statistics Canada, Statistics New Zealand, the Australian Bureau of Statistics, and the Center for Survey Research and Methodology (ZUMA) in Mannheim, Germany provide some guidance for translating questionnaires.

The cross-cultural survey literature describes a number of approaches to develop questionnaires in multiple languages. The choice of approach used depends on whether there is an existing data collection instrument, or whether the questionnaire needs to be developed from scratch. If there is an existing questionnaire, then there are two major approaches that can be followed. The first approach is to *adopt* the instrument to the target language and the second is to *adapt* the instrument to the target language.

*Adoption* calls for the direct translation of the data collection instrument from the source language to the target language without regard to linguistic and cultural subtleties that impact the intended meaning of the question.<sup>6</sup> The second approach, *adaptation*, uses the existing questionnaire as the basis, but adaptation allows for components of the survey question to be modified or altered (independent of changes made as a result of the translation) in order to make the survey question suitable for fielding in the target language. Adaptation acknowledges and accounts for semantic, conceptual and other differences that exist across languages.

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<sup>5</sup> Carrasco, Lorena, *The American Community Survey (ACS) en Español: Using Cognitive Interviews to Test the Functional Equivalency of Questionnaire Translations*. Statistical Research Division Study Series Report (Survey Methodology #2003-17). Issued August 5, 2003. U.S. Census Bureau, Washington, D.C.

<sup>6</sup> For example see Harkness, J., Van de Vijver, F.J.R., and Mohler, P. (Eds.) *Cross-Cultural Survey Methods*. New Jersey: John Wiley and Sons, Inc. 2003 for a description and discussion of the use of this model in the translation of surveys.

An important task in the development of data collection instruments in multiple languages is the actual conduct of the translation, or, taking words and their meaning in the source language and identifying words in a target language that convey the same or similar meaning. This task can be performed using a variety of approaches or techniques. Translation techniques discussed in the context of questionnaire translation talked about in the research literature include *simple direct translation*, *modified direct translation*, *back-translation*, and the *committee approach*.<sup>7</sup>

A *simple direct translation* is conducted by a single bilingual individual who translates the questionnaire from the source language into the target language. *Back-translation* is another technique with wide appeal because it's relatively low cost and quick. Back translation is an iterative process that entails three basic steps: (1) Translation of the source language instrument by a bilingual individual; (2) Translation of the target language instrument back to the source language instrument by a second bilingual individual; (3) Comparison of the original source instrument with the back translated source language instrument. If substantial differences arise when the source instrument is compared to the back translated source instrument in Step #3, then a new target language instrument is produced that incorporates modifications designed to eliminate differences. This process is repeated until the back-translated instrument is "like" (similar to, comparable to) the original source language instrument.

Back-translation has several inherent flaws that preclude the production of data collection instruments with semantic, conceptual, and normative equivalence, and that are reliable, complete, accurate and culturally appropriate. For this reason the guideline does not recommend this approach for producing final data collection instruments.

An approach for survey translation that has recently gained exposure in the literature is the *committee approach* to survey translation and assessment. The committee approach is more comprehensive and collaborative than the other approaches described and discussed in the guideline because the committee approach calls for the pretesting of the translated instrument and relies on input from a team whose members have skill sets that go beyond the skills of a translator.

In general, the committee approach entails convening a group of individuals with complementary skills and who are assigned specific roles. The committee includes several translators, at least one adjudicator, translation reviewers, subject matter specialists, and someone with knowledge and experience in questionnaire design and pretesting. In this approach, the actual translation is conducted by a group of translators in a parallel fashion. Several translators independently translate the instrument from the source language to the target language. A meeting is then held with the translators, the translation reviewers, and other members of the team to discuss the translated versions of the instrument. From this meeting, a reconciled version of the translated

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<sup>7</sup> For example, see Harkness, et al. *Cross-Cultural Survey Methods*. New Jersey: John Wiley and Sons, Inc. 2003 and O. Behling and K.S. Law *Translating Questionnaires and Other Research Instruments: Problems and Solutions*. London: Sage Publications, Inc. 2000.

instrument is produced which then goes to the adjudicator(s) who makes final decisions, and the data collection instrument is then pretested. After the pretesting is complete, the adjudicator and other committee members convene again to decide on final decisions that will result in the final data collection instrument ready for the field. The committee approach is the recommended method of translation.

A more detailed and comprehensive review of the literature is presented in the supporting document “*The Translation of Surveys: An Overview of Methods and Practices and the Current State of Knowledge*” of the guideline and a list of the literature consulted appears on the reference section of the guideline.<sup>8</sup>

### Translation Guideline<sup>9</sup>

The Census Bureau developed guidelines for the translation of data collection instruments and supporting materials<sup>10</sup> in order to ensure that such documents translated from a source language into a target language are *reliable, complete, accurate, and culturally appropriate*. When the translated text conveys the intended meaning of the original text, the translation is deemed reliable. Translations that *do not* add any new information to the translated document and do not omit information provided in the source document are said to be complete. An accurate translation is one that is free of spelling and grammatical errors. Cultural appropriateness is achieved when the message conveyed in the translated text is appropriate for the target population. In addition to meeting the aforementioned criteria, translated Census Bureau data collection instruments and related materials should also have *semantic, conceptual, and normative equivalence*.

The matter of equivalence and the extent to which there is equivalence (to the source language) in the translated text is central to the quality and appropriateness of a translation. If the translation lacks equivalence, then the intended meaning of the information in the source language text is not appropriately conveyed in the translation. The literature points to several types of equivalence. *Semantic equivalence* refers to the extent to which the terms and sentence structures that give meaning to the information presented in the source language is maintained in the translated text. *Conceptual equivalence* concerns the degree to which a given concept is present in both the source and target cultures, regardless of the words used to express the

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<sup>8</sup> The title of this document is: *Census Bureau Guideline: Language Translation of Data Collection Instruments and Supporting Materials*. Methodology and Standards Directorate, U.S. Census Bureau, issued on April 5, 2004.

<sup>9</sup> This section is based on a longer document on the Census Bureau translation guideline.

<sup>10</sup> In this document "data collection instruments and related materials" refers to questionnaires as well as documents such as cover letters, flash cards, reminder notices, and any other text presented to respondents. In this document we use "questionnaire" and "data collection instrument" interchangeably and for simplicity, when we use these terms we are also referring to "related materials" (e.g., reminder notices, flash cards, etc.).

concept. The third main type of equivalence discussed in the research literature is *normative equivalence*. This form of equivalence refers to the extent to which the translated text successfully addresses the difficulties created by differences in societal rules between the source and target cultures.<sup>11</sup>

Census Bureau research conducted for the development of the translation guideline showed that there is considerable evidence in the field of survey methodology and cross-cultural research that translated questionnaires which lack the features noted above are *not* of the highest possible quality and that data obtained from such instruments may not necessarily be comparable to data collected using the source language instrument.

The guideline recommends that the translation of data collection instruments from a source language into a target language be conducted using a *translation team*. This recommendation is based on the research literature. This body of knowledge suggests that the task of translating a data collection instrument from a source language into a target language is *not* a solo activity or an exercise performed in relative isolation. Rather, it is a *process* that entails the participation and cooperation of a number of individuals with complementary skill sets and professional experience. They all make valuable contributions that result in high-quality translated data collection instruments.

Translation team members include subject matter specialists and program managers as well as individuals with knowledge of questionnaire design and pretesting. In addition to these individuals, every translation team assigned to produce final versions of Census Bureau translated data collection instruments and supporting materials should involve three different sets of people: *translators*, *translation reviewers*, and *translation adjudicators*.

The guideline relies on the cross-cultural and survey methodology research literature and specifies and describes five steps that comprise the *translation process*. These steps are: **P**repare, **T**ranslate, **P**retest, **R**evise, and **D**ocument.

By making the translation guideline, the Census Bureau aims to improve the quality of translated data collection instruments and supporting materials, as well as to ensure that these documents are of a quality comparable to the quality of their English language counterparts for which the Census Bureau is known world wide. This guideline will support the Census Bureau's capabilities in providing high-quality data for its sponsors and data users from respondents with no knowledge or limited knowledge of English.

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<sup>11</sup> For a discussion of these various forms of equivalence see O. Behling and K.S. Law, *Translating Questionnaires and Other Research Instruments: Problems and Solutions*. London: Sage Publications, Inc. 2000.

## **APPENDIX**

This appendix contains the *Census Bureau Guideline for Language Translation of Data Collection Instruments and Supporting Materials*. This guideline has two attachments and two supporting documents. These are:

### Attachments:

- A Criteria for Achieving a Good Translation
- B Translation Validation Form

### Supporting Documents:

- The Translation of Surveys: An Overview of Methods and Practices and the Current State of Knowledge
- Bibliography



# **Census Bureau Guideline: Language Translation of Data Collection Instruments and Supporting Materials**

## **Introduction**

The Census Bureau's Methodology and Standards Council sets statistical standards for the Census Bureau's surveys and censuses. This responsibility encompasses providing guidelines for the translation of Census Bureau data collection instruments and related materials.<sup>12</sup> This guideline provides direction to program managers to help them and their teams ensure that Census Bureau data collection instruments and related materials that are translated from a source language into a target language<sup>13</sup> are of the highest quality possible, given available resources.

This guideline consists of the main text, which follows, and two attachments. Two reference documents provide background information for the guideline. The main body of this document outlines, in broad terms, the recommended process for the translation of surveys. Included in this process are steps that we recommend in order to produce high-quality translated data collection instruments. The process and the steps specified in this guideline are based on a review of the available literature on translation methods, the relatively more limited literature on the translation of surveys, and the useful, but limited, written guidance for the translation of surveys provided by statistical agencies including Statistics Canada and Statistics New Zealand.

The process and steps specified in this guideline rely heavily on discussions which took place at a two-day expert panel meeting initiated, designed, sponsored, and hosted by the Census Bureau in November 2001. The expert panel met for two days at Census Bureau headquarters in Suitland, Maryland. The convening of the expert panel marked the beginning of the Census Bureau's efforts to develop and issue this guideline for language translation of data collection instruments and supporting materials.<sup>14</sup>

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<sup>12</sup> In this document, "data collection instruments and related materials" refers to questionnaires as well as documents such as cover letters, flash cards, reminder notices, and any other text presented to respondents. In this document we use "questionnaire" and "data collection instrument" interchangeably. For simplicity, when we use these terms, we are also referring to "related materials" (e.g., reminder notices, flash cards, etc.).

<sup>13</sup> Throughout the guideline we refer to the "source language" as the language of the existing data collection instrument. In almost all cases at the Census Bureau the source language is English. We refer to the "target language" as the language of the translated document. In almost all cases at the Census Bureau the target language is a non-English language.

<sup>14</sup> The individuals who comprised the expert panel included (in alphabetical order): Herman A. Alvarado, The National Research Council; Scott Brennan, consultant and President of the American Translators Association; Janet A. Harkness, Center for Survey Research and Methodology (ZUMA) in Mannheim, Germany; Patricia

Attachment A, “*Achieving the Goals of a Good Translation*,” provides a discussion of the goals of a good translation and the questions to consider when conducting a translation, and outlines the steps necessary for achieving a good translation. It provides guidance by citing criteria that should be met to produce data collection instruments that are of high quality. It also lists specific steps to achieve an accurate, fluid, and appropriately translated data collection instrument. The criteria presented in this attachment were distilled from the technical literature on translation and sociolinguistics.

Attachment B, “*Translation Validation Form*,” poses a list of questions to be addressed in writing by the project manager, the translators, and the reviewers concerning how key issues were handled in the conduct of a specific translation. These questions also serve to document how the translation was conducted, what decisions were made throughout the process, and the reasons behind the decisions.

Both attachments are intended to be used as a tool by in-house or contract translators to ensure that the translated text meets designated criteria consistent with professionally translated material.

The document “*The Translation of Surveys: An Overview of Methods and Practices and the Current State of Knowledge*,” provides a discussion of the methods commonly used by cross-cultural researchers when developing questionnaires in multiple languages. This document is intended to provide an overview of the current state of knowledge in this area and it is not intended to be a comprehensive summary of the field. Rather, the aim of the document is to provide the reader with a basic overview of approaches available to develop questionnaires in multiple languages and to alert the reader to the research literature which is in turn cited in the “Bibliography.” Each approach presented has its merits and drawbacks. Which approach or mix of approaches is used should be driven by the goals of the research and the resources available to the specific project. Nonetheless, research indicates that some approaches, such as back-translation, do not result in the best possible translation. In the main body of this guideline, we provide guidance on which approach is preferred for translating Census Bureau data collection instruments.

The “*Bibliography*” is a list of documents including books, journal articles, and official documents from statistical agencies throughout the world which were consulted for the development of this guideline. This bibliography should be used as a reference guide for those who wish more information on the criteria presented in the guideline.

By making this guideline available, the Census Bureau aims to improve the quality of translated

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Montalvan, Westat; Ivonne Pabon-Marrero, U.S. Census Bureau; Deborah Rose, National Center for Health Statistics; and Alisu Schoua Glusberg, a principal at Research Support Services in Evanston, Illinois, and affiliated with Harvard University. In developing the Census Bureau guideline on language translation of data collection instruments and supporting materials, Census Bureau staff benefitted greatly from the input and guidance provided by these experts.

data collection instruments and supporting materials, as well as to ensure that these documents are of a quality comparable to the quality of their English language counterparts, for which the Census Bureau is known world wide. This guideline will support the Census Bureau's capabilities in providing high-quality data for its sponsors and data users from respondents with no knowledge or limited knowledge of English.

## Scope

This guideline is applicable to translated data collection instruments and related materials developed using paper or automated methods for all surveys and censuses conducted within all program areas of the Census Bureau, including those sponsored by other federal agencies. The guideline applies to pilot tests of new or redesigned forms, methods panels associated with the redesign of a specific survey, and the decennial census testing and evaluation program (site and national tests).

Although Spanish is the predominant non-English language used in Census Bureau questionnaires, this guideline is intended to provide direction for the translation of data collection instruments from English into any non-English language. For example, in Census 2000, the Census Bureau made available census forms in five languages other than English – Spanish, Chinese, Korean, Vietnamese, and Tagalog.

## Guideline

Census Bureau data collection instruments that are translated from a source language into a target language should be *reliable, complete, accurate, and culturally appropriate*. When the translated text conveys the intended meaning of the original text, the translation is deemed reliable. Translations that *do not* add any new information to the translated document and do not omit information provided in the source document are said to be complete. An accurate translation is one that is free of spelling and grammatical errors. Cultural appropriateness is achieved when the message conveyed in the translated text is appropriate for the target population. In addition to meeting the aforementioned criteria, translated Census Bureau data collection instruments and related materials should also have *semantic, conceptual, and normative equivalence*.

The matter of equivalence and the extent to which there is equivalence (to the source language) in the translated text is central to the quality and appropriateness of a translation. If the translation lacks equivalence, then the intended meaning of the information in the source language text is not appropriately conveyed in the translation. The literature points to several types of equivalence. *Semantic equivalence* refers to the extent to which the terms and sentence structures that give meaning to the information presented in the source language are maintained in the translated text. *Conceptual equivalence* concerns the degree to which a given concept is present in both the source and target cultures, regardless of the words used to express the concept. The third main type of equivalence discussed in the research literature is *normative*

*equivalence*. This form of equivalence refers to the extent to which the translated text successfully addresses the difficulties created by differences in societal rules between the source and target culture.<sup>15</sup>

There is considerable evidence in the field of survey methodology and cross-cultural research that translated questionnaires which lack these features are *not* of the highest possible quality and that data obtained from such instruments may not necessarily be comparable to data collected using the source language instrument.<sup>16</sup>

Behling and Law (2000), survey methodologists who specialize in cross-cultural research, state the following regarding the importance of equivalence in translated questionnaires:

"Demonstrating that the translated questionnaire possesses the basic characteristics required of all measurement instruments is not enough. In addition, the researcher must show that it exhibits appropriate levels of semantic and conceptual equivalence relative to the source language measure and that it and the procedures through which it is administered minimize any problems created by lack of normative equivalence." (Page15)

Behling and Law's position is echoed by other experts in the field. Similarly, there is considerable consensus in the cross-cultural survey research literature that simple direct translations do not necessarily produce an appropriately translated questionnaire.<sup>17</sup> A direct translation is one in which a bilingual individual translates the survey instrument from the source language into the target language.<sup>18</sup> While this technique is practical because it can be quickly and cheaply done, it does not compare well to other approaches on key dimensions of data quality.<sup>19</sup>

The task of translating a data collection instrument from a source language into a target language is *not* a solo activity or an exercise performed in relative isolation. Rather, it is a *process* that entails the participation and cooperation of a number of individuals with complementary skill sets and professional experience. They all make valuable contributions that result in high-quality translated data collection instruments. For this reason, they collectively comprise the *translation*

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<sup>15</sup> For a discussion of these various forms of equivalence, see O. Behling and K.S. Law (2000).

<sup>16</sup> Marin and Marin (1991), Harkness (2003), Harkness, et al. (2003), McKay et al. (1996).

<sup>17</sup> Ibidem.

<sup>18</sup> In practice, the translation of surveys employs a combination of techniques with heavy reliance on a preferred method such as direct translation. A recent review of statistically representative surveys in the U.S. showed that most survey translations rely for the most part on the direct translation approach (McNally 2001). This less than ideal situation has not gone unnoticed by leading researchers in cross-cultural survey methods, who call for a more collaborative approach to survey translation and the establishment of translation guidelines (Harkness, 2003).

<sup>19</sup> McKay et al. (1996), Behling and Law (2000), and Harkness (2003).

*team.*

Translation team members include subject matter specialists and program managers as well as individuals with knowledge of questionnaire design and pretesting. In addition to these individuals, every translation team assigned to produce final versions of Census Bureau translated data collection instruments and supporting materials should involve three different sets of people: *translators*, *translation reviewers*, and *translation adjudicators*.<sup>20</sup> A description of each of these follows.

Translators are individuals who have been formally trained as translators and have training or experience in translating questionnaires, or they are individuals who have not necessarily undergone formal training in translation but who have the necessary skill, knowledge, and professional experience in the conduct of survey translation that is necessary to produce a professionally translated data collection instrument.

Translation reviewers should have similar skill sets and comparable professional experience as translators. They should possess familiarity with questionnaire design principles, knowledge of the design of the specific study, and subject matter expertise.

Translation adjudicators should work cooperatively with other members of the translation team during the adjudication phase to make definitive decisions about the final wording and final content of the translated questionnaire. In addition to being completely fluent in the source language, we recommend that adjudicators be fluent in the target language, since this knowledge is important in making informed decisions regarding final wording used in the translated document.

Adjudicators should also have knowledge of the intent and purpose of the survey undergoing translation, as well as an understanding or appreciation of the principles of questionnaire design and pretesting. Depending on available funding, time, and other resources, the adjudication function can be performed by a single individual, typically the project manager, or by more than one individual.

The number of persons who comprise the translation team is contingent on key factors that are unique and specific to each Census Bureau translation effort. These factors include: the amount of funding specifically allocated to the translation task, the scope of the project, the schedule for the project completion, and the extent to which some or all the recommended steps of the translation are conducted in-house or by individuals working for the Census Bureau under contract. We recommend that, at a minimum, the translation team, in addition to the project manager, consist of the following: at least two translators to perform the actual translation function and review, a subject matter specialist, a person with knowledge of questionnaire design and pretesting, and an adjudicator.

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<sup>20</sup> Harkness (2003) and Policy Research Methods, Inc. (2001).

The role of pretesting questionnaires for surveys and censuses and its importance to the Census Bureau,<sup>21</sup> as well as its wide use and acceptance in the field of survey methodology are well established.<sup>22</sup> The Census Bureau Standard *Pretesting Questionnaires and Related Materials for Surveys and Censuses* states that the minimum requirement put forth also applies to non-English language census and survey forms. This guideline for translating Census Bureau data collection instruments recommends that the semantic, conceptual, and normative equivalence of translated materials used for the purpose of collecting data (information) be demonstrated to fulfill the requirement of that standard.

**Recommended Steps for Census Bureau Translations.** The literature used to develop this guideline was wide and varied. The information came from textbooks on translation techniques; journal articles containing research results and case studies; documents providing direction; and recommendations on the translation of surveys developed by international, national, and state statistical agencies.

The process and steps specified in this guideline also rely heavily on discussions which took place at the previously mentioned expert panel meeting held at the Census Bureau.

From the review of the research literature and from the advice and guidance provided by the expert panel, we have extracted five steps that comprise the translation process that we recommend be followed when conducting Census Bureau translations. These steps are: Prepare, Translate, Pretest, Revise, and Document.<sup>23</sup>

## 1. Prepare

Good up-front preparation for the conduct of the translation will likely reduce the time and resources that will be required to produce a final and well-translated questionnaire ready for use in data collection. The measures recommended in this section are intended to guide the preparatory work for translations conducted in-house as well as translations conducted under contract.

We recommend that translators be provided with the following documents before beginning work on the translation:

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<sup>21</sup> One indication of the importance placed on the pretesting of survey and census instruments is the recent expansion of a pretesting standard for demographic surveys to include all Census Bureau surveys (U.S. Census Bureau, 2003). Another indication of the important role of pretesting within the Census Bureau is the establishment of the Questionnaire Pretesting and Household Survey Group in the Census Bureau's Statistical Research Division.

<sup>22</sup> Sirken et al. (1999); Tanur (1992); and Biemer et al. (1991); Tourangeau et al. (2000).

<sup>23</sup> While documentation is the last step in the process, the activity of recording, in detail, the methods used and the decisions made throughout the translation process is paramount. Documentation is an ongoing activity and its placement as the last step in the process should not be interpreted as being absent from the preceding steps.

*Statement of work:* It is important to clarify initially and in writing the scope and purpose of the translation. For example: Is the text to be used to collect data (e.g., questions in a questionnaire) or to convey information to respondents (e.g., instructions on questionnaires, cover letter, reminder letter)? Will instructions for the interviewer be translated? The amount of text to be translated (volume) should also be clearly indicated in terms of words or number of standard pages.

Translators should be informed of the target audience of the translation. If survey questions are to be translated, translators should be informed before they begin work if the questions will be used in a self-administered or interviewer-administered data collection effort. They should know the medium in which the instrument will be administered (e.g., CAPI, CATI, IVR, Internet). Before the work begins, the target language or languages should be specified in terms of dialect and expected level of formality.

The guideline calls for translators to be members of the translation team. Translators will be called upon after pretesting when revision to question wording is discussed, and during adjudication when definitive judgment is made on the final content. Before the work begins, translators should be informed of these steps.

*Documentation:* In addition to the text designated for translation, translators should be provided with all documentation useful in performing the translation. This documentation includes, for example, the definition of terms or concepts used in the wording of the questions. If CATI or CAPI are used, then translators should be provided with the specifications associated with the programming of the instrument.

*Subject-Matter Contact:* Translators should have ready access to one or more individuals familiar with the survey who can explain the purpose or intent of the survey questions to be translated. Typically, this contact person should be a member of the translation team who is familiar with the survey.

*Questionnaire-Design Contact:* Translators should have ready access to individuals who can provide guidance on the design aspects of the questionnaire (if self administered). If the translated instrument is automated (CATI/CAPI/IVR), translators should have access to individuals familiar with the programming specifications of the instrument. For example, during the conduct of the translation, questions may arise regarding how to express respondent instructions in a self-administered form in the best possible manner. Similarly, translators may need assistance with expressing the "fills" that are part of an automated data collection instrument.

## **2. Translate**

After the preparatory work specified in Step 1 is complete, the actual translation of the text can begin. The translation should be executed following the advice provided in this guideline. More

specifically, a *translation team* should be formed as suggested above. Solo or direct translations and the technique of back translation are not recommended because research findings indicate, and the Census Bureau's expert panel notes, that these approaches often do not produce a data collection instrument that is of acceptable quality.

### 3. Pretest \_\_\_\_\_

This guideline advocates the notion that pretesting is an integral and necessary part of the translation process. The guideline recommends that staff with questionnaire pretesting knowledge and experience be part of the translation team. The guideline relies on the *Census Bureau Standard: Pretesting Questionnaires and Related Materials for Surveys and Censuses* (2003) for direction regarding the pretesting of translated questionnaires and related materials.<sup>24</sup>

Questionnaires that have been translated from a source language to a target language should not be used as data collection instruments if pretesting has not occurred. The utility of translated questionnaires that have not undergone pretesting is limited. It may be necessary to use such documents to conduct outreach or to promote a survey or census, but these documents are not appropriate for data collection.

Pretesting a translated questionnaire helps identify concepts or constructs that are specific to a given language or culture (*emic*) so that the questionnaire designer, along with translators and other members of the translation team, can make the appropriate adjustments to survey questions, thus avoiding concept bias<sup>25</sup> and achieving construct equivalence.<sup>26</sup>

The research literature is clear on the importance of pretesting translated questionnaires. The following quote from a prominent researcher considered by many to be an internationally recognized authority on cross-cultural survey research states:

"Translated questionnaires should be tested as thoroughly as questionnaires designed for one context, and most of the techniques used for testing monolingual questionnaires are equally relevant for testing translated questionnaires. Assessment incidentally, should include everything translated for a study, including hidden CAPI instructions to interviewers and any

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<sup>24</sup> While research is needed on how commonly used and widely accepted pretesting techniques (e.g., cognitive interviews and behavior coding) can be applied to the pretesting of non-English language data collection instruments, the best currently available guidance for pretesting is contained in the Census Bureau Standard for Pretesting Questionnaires and Related Materials for Surveys and Censuses issued in 2003.

<sup>25</sup> *Concept bias* occurs when concepts in survey questions do not systematically represent the same underlying latent concept in two or more languages (see Johnson, 2003).

<sup>26</sup> *Construct equivalence* is achieved when survey questions in two or more languages measure a defined construct. This can be accomplished by using similar or different survey questions (see Johnson, 2003).



support materials, such as show cards, diagrams, etc. Attention should also be paid to any culturally anchored visual components." (Harkness, 2003: 41)

#### **4. Revise**

Revision is an integral and necessary activity of the translation process and is ongoing until the translation is finalized. The first juncture for revision may occur after the review of the initial translated document. The next point for review can happen after results from the pretest become available.

We recommend that translation team members reconvene after results from the pretest are available to discuss revision to both the source language and target language document based on pretest results.

Adjudication is the last step before the translated document is finalized. Final decisions on revisions are typically made during this phase of the translation process.

#### **5. Document**

While documentation is the final step in our process, it should occur at every step of the process. Therefore, we recommend that all the steps taken to translate a document be clearly documented. Documentation begins in Step 1 with the written specifications (along with other documents) provided to the translators.

Accurate and complete documentation is a necessary aspect of Step 2, especially when translating complex surveys in which many versions of the survey may be produced during the translation of the document. We recommend developing a numbering system for tracking different versions, and tagging revisions with documentation on why changes were made by the team. This task requires special attention; we recommend that a member of the translation team be assigned this important responsibility.

Documentation is a key part of Step 3 since it is important to demonstrate that the translated questionnaire "works." Documentation of pretesting should not be a concern if standard procedures applied to all Census Bureau pretesting research are followed. That is, research results are clearly documented in a final written report.

Documentation is an important activity in Step 4 of the translation process. As is the case in Step 2, changes to the source and translated texts require special attention to ensure that all revisions are noted and tracked. This is particularly important when pretesting results are considered and during the adjudication phase.

**The Contracting of Translations.** This guideline is intended to be used by in-house or contract translators as well as project managers to ensure that the translated text meets the designated criteria consistent with professionally translated materials.

Census Bureau needs may require that all or some of the recommended steps in the translation process specified in this guideline be contracted. When this occurs, the guidance provided in this guideline should receive the same attention as guidance provided by established contract management principles.

Specific guidance on how the translation process advocated in this guideline can be incorporated in the monitoring and execution of a contract is not within the aim of this guideline. However, the information presented in this guideline, and more specifically the guiding principles provided in the attachment will greatly facilitate the difficult task of assuring that the work performed by contractors meets the high standards required by the Census Bureau.

For example, the attachment calls for written documentation of how and to what extent the key principles put forth in the guideline were addressed in the conduct of a given translation. We strongly recommend that such reporting requirements be specified in the statement of work (SOW) that is routinely provided to contractors. The SOW should alert the contractor that adherence to this guideline is a contract requirement and that documenting the adherence to such requirements, as specified in the attachment, is a requisite.

## **Responsibilities**

### **Program areas will be responsible for the following:**

- the use of guidance on the translation process and procedures in the attachment as appropriate;
- the use of the quality criteria in the attachment, as applicable; and
- the documentation of the use of the quality criteria in the attachment.

### **The Methodology and Standards Council will be responsible for the following:**

- the initiation of periodic evaluations, reviews, and updates to the guidelines, as necessary; and
- guidance to program areas in the use or implementation of the guidelines.

## **Inquiries**

Inquiries relating to interpretation of this standard should be addressed to the Census Bureau's Methodology and Standards Council.

*Attachments:*

- A Criteria for Achieving a Good Translation
- B Translation Validation Form

*Supporting Documents:*

- The Translation of Surveys: An Overview of Methods and Practices and the Current State of Knowledge
- Bibliography

**Concurrence by Census Bureau Methodology and Standards Council:**

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Cynthia Z.F. Clark,  
Associate Director for Methodology and Standards

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Robert Tinari, CASRO

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Rajendra Singh, DSSD

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Tommy Wright, SRD

## Criteria for Achieving a Good Translation<sup>27</sup>

### 1. Goals of a good translation

The purpose of a translation is to transfer the meaning of a written text in one language into a written text in another language, while preserving the meaning, style, and effect of the source text, and at the same time respecting the sentence syntactic (structure), lexical (vocabulary), and semantic (meaning) values of the target language. A high-quality translation should have three goals: reliability, fluency, and appropriateness. Specific requirements of these three goals are as follows:

**Reliability.** Reliability means the message in the source text is accurately transferred into the target text. It includes the following three aspects:

*Semantic equivalence:* Meaning(s) and messages(s) of the source text are accurately conveyed into the target text.

*Technical accuracy:* The translation has the functional equivalence of the source text.

*Textual completeness:* The translation is a complete text, not omitting anything important and not adding anything unimportant. It should be free of spelling or grammatical errors.

**Fluency.** Fluency means that the translation reads well and makes sense in the target language. A translation should:

*Be readable, clear, and intelligible in the target language.*

*Have a natural and easy form of expression in the target language.*

*Conform to the grammar and discourse conventions in the target language.*

**Appropriateness.** Appropriateness means the style, tone, and function of the source text are appropriately transferred into the target text. A translation should:

*Be stylistically appropriate:* The style and manner of writing should be similar to that of the source text. The degree of formality should be comparable to that of the source text.

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<sup>27</sup> This quality assurance guideline was developed by Dr. Yuling Pan, a sociolinguist in the Statistical Research Division. The following were among the documents consulted: Bell (1991), Baker (1992), Gile (1995), Hatim (1990), Hickey (1998), House (1997), Meremy (2001) and Newmark (1991).

\_\_\_ *Be culturally acceptable:* The translation should convey the source text in culturally appropriate expressions for the target population, even though the form of expression may be different.

*Have the same communicative effect:* The translation should produce a similar response from the target population as the source text.

## 2. General questions to consider in the process of translation

In order to achieve the goals of a good translation, translators should have a basic understanding of the purpose and procedure of surveys and select the most appropriate wording and sentence structure to achieve the functional equivalence of a survey question, or to convey the message of survey supporting documents. As language use depends heavily on the context, and there are multiple ways to translate a word, a phrase, or a sentence, translators should be provided with essential background information before they can decide on the appropriate words and sentence structures for a translation. The ultimate criteria for making the decision for word choice or sentence structure should be based on the following guiding principles:

*Who?* Who is the target population? What are the social attributes (if known) of the target population (e.g., education level, income level)?

*What?* What is the message contained in the source text?

*Why?* Why is the document needed? (e.g., Is the text to be used to collect data or to inform respondents?)

*When?* When is the document going to be used?

*Where?* At what geographical location and at what social setting is the document going to be used?

*How?* How is the message going to be delivered? What is the manner of delivery (formal or informal)? What is the mode of data collection?

These six general questions outline the social and contextual factors that influence language use in communication and should serve as the guidance for dealing with linguistic nuances in translation. For example, if the mode of data collection is an oral mode (e.g., face-to-face or telephone), the translator should select words and sentence structures that are commonly used in spoken language instead of written language. If the social setting in which the translated document is going to be used is a formal one, translators should use a more formal style in the translation. Therefore, translators and reviewers should consider these six general questions for guidance in selecting words, sentence structures, and level of formality in the process of translation and review.

### 3. Steps in achieving the goals of a good translation

In the process of translation, translators should carefully consider linguistic and cultural nuances that may affect the quality of survey translations at each level of the translation: word level, sentence level, and discourse level.

**At the word level.** Accurate wording can ensure reliability of a translation. At the word level, four issues need special attention: semantic equivalence, connotation and cultural meaning of a term, multiple translations of a term, and culturally specific concepts. Translators should:

- Determine the word meaning, message, or concept conveyed in a term in the source text, and at the same time consider cultural meaning(s) of a term in addition to its dictionary meaning;
- When there are multiple translations of a term, be aware that synonyms differ slightly in meaning, connotation, and the degree of formality. Therefore, translators should carefully consider the semantic, cultural, and stylistic implications of synonyms and decide on one that is closest to the word used in the source text;
- When translating a culturally specific concept into the target language, make sure that the equivalent term connotes the same concept in the target culture. If no equivalent term exists in the target language, use explanations or, if necessary, keep the source term in notes or parentheses. Avoid making up new words or expressions that are foreign to the target population;
- Be consistent in word choice for translating the same concepts; and
- Be succinct and concise in using the fewest words possible to convey all necessary concepts.

**At the sentence level.** The goal of fluent reading of a translation can be achieved by following the target language grammar and sentence structures at the sentence level. Translators should:

- Use appropriate grammatical or lexical categories to express tense, aspect, case, gender, number, and modality;
- Follow the target language syntactic rules. If needed, restructure a sentence to reflect the target language syntax. For example, restructure long sentences or complicated subordinate clauses according to the syntactic rules of the target language;
- Follow the target language word order. Re-organize the English word order to reflect the target language word order. For example, if a target language has the word order of VSO (verb-subject-object) or noun-adjective, then re-organize the English word order of SVO (subject-verb-object) or adjective-noun into the target language word order; and

- If needed, add or delete words/phrases without distorting the meaning of the source text.

**At the discourse level.** The goal of appropriateness calls for careful consideration of style and communicative effect at the discourse level. This process includes the use of a simple and clear style of writing that is generally understood by the target population, the degree of formality comparable to the source text, and the use of culturally appropriate expressions. Translators should:

- Assess the readability level of the source text and use lexical items and syntactic structures in the target language to convey the comparable readability in the translation;
- Use appropriate transitional and discourse connectives to ensure smooth reading of the target text;
- Use culturally appropriate expressions. Pay attention to word connotation. Do not use any terms that can be offensive in the target culture;
- Use lexical items or syntactic structures to indicate the tone and level of politeness that are appropriate to the target population; and
- Ensure that the target text has the same communicative effect. Pay attention to the function of an expression or a sentence in the source text and make sure the target text bears the same function. For example, a request can be phrased in a question or in a statement format. Make sure that the function and not only the form of a request is transferred in the target text.





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Of the aforementioned, what kind of background information was provided to the translators?

**To be completed by the translators and reviewers.**

1. Give a brief description of what linguistic and cultural nuances you considered at the word level, and how you addressed these issues.

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2. Give a brief description of how you ensured that the translation follows the grammatical rules and syntactic structures of the target language, what issues you considered and what problems remained.
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## **The Translation of Surveys: An Overview of Methods and Practices and the Current State of Knowledge**

A recent review of selected, nationally representative surveys in the U.S. conducted by James McNally of the University of Michigan showed that, while most major national population surveys are translated into a non-English language (most notably Spanish), there are no formal written procedures outlining the steps for translating and for pretesting the translated instruments.<sup>28</sup>

Preliminary results from a more recent search of documents available on the World Wide Web<sup>29</sup> suggests that most of the information available on guidelines for the translation of data collection instruments is limited. Available guidance is generally included or incorporated in documents developed for other purposes such as delivery of social or health services<sup>30</sup> and the translation of text in general (surveys are not usually mentioned explicitly).<sup>31</sup> Other advice on the conduct of translations come from for-profit and non-profit organizations<sup>32</sup> and professional translators engaged in activities such as the translation of legislation.<sup>33</sup>

Results from the Web search revealed that a handful of key international statistical agencies such as Statistics Canada,<sup>34</sup> Statistics New Zealand,<sup>35</sup> the Australian Bureau of Statistics,<sup>36</sup> and the Center for Survey Research and Methodology (ZUMA) in Mannheim, Germany<sup>37</sup> provide some guidance for translating questionnaires.

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<sup>28</sup> See McNally (2001) and personal communication with Professor James McNally at the Institute of Social Research at the University of Michigan, September 24, 2001.

<sup>29</sup> This ongoing Web search is being conducted by Policy Research Methods, Inc., a Census Bureau contractor in June and July 2003. Purchase Order Number: 43-YABC-261051.

<sup>30</sup> Nebraska Department of Health and Human Services (2003); U.S. Department of Health and Human Services (2000); Schroeder (2002); U.S. Department of Health and Human Services (2001); Massachusetts Department of Public Health (2000).

<sup>31</sup> Minnesota Department of Health (2000); Massachusetts Department of Public Health (2000).

<sup>32</sup> American Translators Association (2001); O'Connor and Malak (1999).

<sup>33</sup> European Parliament (1999); Yuhong (2000).

<sup>34</sup> Statistics Canada (1995).

<sup>35</sup> Potaka and Cochrane (2002).

<sup>36</sup> Alanna Sutcliffe, Director, Population Survey Development Section, Australian Bureau of Statistics, e-mail to Manuel de la Puente, Assistant Division Chief, Statistical Research Division, U.S. Census Bureau, dated July 27, 2003.

<sup>37</sup> Harkness (2003).

With the exception of a handful of professional researchers conducting cross-cultural studies, most notably Dr. Janet Harkness and her colleagues at ZUMA, very little guidance is provided in the research literature on the steps necessary for the development of questionnaires in multiple languages. Much of the information on the methods and practices associated with the translation of surveys provided in this attachment is based on the work of Dr. Harkness and a handful of other leaders in the field.<sup>38</sup>

In practice, the approaches and methods presented in Attachment B depend, for the most part, on the research goals, research objectives, and available resources driving the specific mix of methods. While it is not practical to state *a priori* the appropriate mix of methods for a given translation task, it is possible to point out the strengths and weaknesses of each approach and to recommend which approach is preferred based on the current state of knowledge.

### **Techniques Commonly Used to Develop Surveys in Multiple Languages**

The cross-cultural survey literature describes a number of approaches to develop questionnaires in multiple languages. The choice of approach used depends on whether there is an existing data collection instrument, or whether the questionnaire needs to be developed from scratch.

If there is an existing questionnaire, then there are two major approaches that can be followed. The first approach is to *adopt* the instrument to the target language and the second is to *adapt* the instrument to the target language.

*Adoption* calls for the direct translation of the data collection instrument from the source language to the target language without regard to linguistic and cultural subtleties that impact the intended meaning of the question. This approach is based on what is frequently referred to "Ask-the-Same-Question" (ASQ) model.<sup>39</sup> This model is based on the dubious and often erroneous assumption that a question that "works" well in the source language also "works" well in the target language once it is translated. This approach ignores semantic, conceptual, and other culture-based differences that exist across languages.

While the adoption approach is simple, quick, and relatively low cost, its usefulness and value are questionable because research evidence indicates that a close translation of a source questionnaire does not necessarily result in a translated instrument that adequately measures the constructs of the source questionnaire.<sup>40</sup> For this reason, adoption is not an approach recommended for the development of data collection instruments in multiple languages.

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<sup>38</sup> The work of Behling and Law (2000) serves as an example of how the translation of data collection instruments is explicitly addressed in the research literature in a textbook format. Other guidance can be found in specific case studies of survey translation. For example, McKay et al. (1996), Potaka and Cochrane (2002), and Schoua-Glusberg (1992).

<sup>39</sup> See Harkness et al. (2003) for a description and discussion of the use of this model in the translation of surveys.

<sup>40</sup> Behling and Law (2000).

The second approach, *adaptation*, uses the existing questionnaire as the basis, but adaptation allows for components of the survey question to be modified or altered (independent of changes made as a result of the translation) in order to make the survey question suitable for fielding in the target language. Adaptation acknowledges and accounts for semantic, conceptual and other differences that exist across languages.

Question *adaptation* can take several forms.<sup>41</sup> One type of question adaptation is *terminological and factual*. This form of adaptation happens when modifications that are country or language specific such as the name of an official government legislature (e.g., Congress, Parliament) are made to survey questions. Another type of adaptation is *language-driven*. Language-driven adaptations involve modifications to account for grammatical differences between languages, such as differences that indicate physical and grammatical genders.

Adaptations can also be *convention-driven*. For example, self-administered questionnaires developed for use in English-speaking cultures are designed to be read from left to right. This convention will not work in languages where it is customary for text not to be read and processed in this fashion. Thus, self-administered questionnaires in these languages must be adapted to the conventions of the target language. Lastly, adaptations can be *culture-driven*. This type of adaptation refers to modifications that are called for by norms and cultural practices and sensitivities associated with the target language.

When an existing survey instrument requires translation into a target language, this guideline recommends that appropriate adaptation techniques, such as those described in this guideline, be used since these approaches are consistent with development of data collection instruments that have semantic, conceptual, and normative equivalence. Adaptation can help to ensure that survey questions (in both the source and target languages) measure the same or similar construct (construct equivalence) and avoid concept bias. Research shows that such instruments are more likely to provide reliable, complete, accurate, and culturally appropriate information than instruments developed using other techniques.<sup>42</sup>

### **Approaches Commonly Used to Translate Surveys**

An important task in the development of data collection instruments in multiple languages is the actual conduct of the translation, or, taking words and their meaning in the source language and identifying words in a target language that convey the same or similar meaning. This task can be performed using a variety of approaches or techniques. Translation techniques discussed in the context of questionnaire translation talked about in the research literature include *simple direct translation*, *modified direct translation*, *back-translation*, and the *committee approach*.<sup>43</sup>

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<sup>41</sup> Harkness et al. (2003) discuss the adaptation approaches in their chapter on questionnaire design.

<sup>42</sup> Behling and Law (2000); McKay et al. (1996).

<sup>43</sup> Harkness (2003) and Behling and Law (2000).

A *simple direct translation* is conducted by a single bilingual individual who translates the questionnaire from the source language into the target language -- end of story. The advantages of this method are apparent -- it is cheap and quick. The drawbacks are less evident but important. Comparison of this simple direct translation approach with other approaches indicate that simple direct translation of data collection instruments does not compare well in terms of key criteria for data quality. These criteria include the extent to which the translated data collection instrument is informative and accurate, and the degree of language transparency.<sup>44</sup> Even if the quality of the source instrument is good, direct translations are problematic because too much depends on a lone translator's skill and judgment. Instrument adaptation is lacking.

Some researchers have instituted modifications to the simple direct translation method in order to overcome its shortcomings.<sup>45</sup> For example, one of the accommodations made to compensate for the flaws in the direct method is using a committee that meets with the translator to discuss and raise issues with the translated survey. While this *modified direct translation* approach addresses some of the shortcomings of the simple direct approach, it fails to compensate for an inherent lack of collaboration that is essential in the production of a well-translated instrument.

*Back-translation* is another technique with wide appeal because it's relatively low cost and quick. The disadvantages, however, outweigh these benefits. Back-translation is an iterative process that entails three basic steps. These are:

1. Translation of the source language instrument by a bilingual individual. *Source language instrument (A) -----> Target language instrument (B)*
2. Translation of the target language instrument back to the source language instrument by a second bilingual individual. *Target language instrument (B) -----> Back-translated source language instrument (C)*
3. Comparison of the original source instrument with the back-translated source language instrument. *Source language instrument (A) <-----compare-----> Back-translated source language instrument (C)*

If substantial differences arise when the source instrument (A) is compared to the back translated source instrument (C) in Step #3, then a new target language instrument is produced that incorporates modifications designed to eliminate the differences between A and C. This process is repeated until the back-translated instrument is "like" (similar to, comparable to) the original source language instrument.

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<sup>44</sup> Behling and Law (2000) and McKay et al. (1996) for more information on how direct translations compare to other types of translations techniques used in the conduct of surveys.

<sup>45</sup> Geisinger (1994).

This approach has several inherent flaws that preclude the production of data collection instruments with semantic, conceptual, and normative equivalence, and that are reliable, complete, accurate and culturally appropriate.

A shortcoming of the back-translation method is that the data collection instrument that results from the back-translation is used as an indicator for the quality of the target language data collection instrument. This is problematic because the back-translated questionnaire has not undergone assessment and so the quality of this instrument is unknown. Moreover, back-translators may do an adequate job of translating an item which was not adequately translated from the source instrument. If this occurs, then the back-translated instrument provides misleading information about the adequacy of the target language instrument.

Survey questions translated using the back-translation method are prone to concept bias and lack of equivalence (semantic, construct, and cultural), because the ability to adjust for these features rests exclusively on the knowledge and skill of the translators.

An approach for survey translation that has recently gained exposure in the literature is the *committee approach* to survey translation and assessment. Major proponents of this approach include Janet Harkness and her colleagues,<sup>46</sup> Alisu Schoua-Glusberg,<sup>47</sup> and Ruth McKay and her colleagues.<sup>48</sup>

The committee approach is more comprehensive and collaborative than the other approaches discussed above because the approach calls for the pretesting of the translated instrument and relies on input from a team whose members have skill sets that go beyond the skills of a translator.

In general, the committee approach entails convening a group of individuals with complementary skills and who are assigned specific roles. The committee includes several translators, at least one adjudicator, translation reviewers, subject-matter specialists, and someone with knowledge and experience in questionnaire design and pretesting. In this approach the actual translation is conducted by a group of translators in a parallel fashion. Several translators independently translate the instrument from the source language to the target language. A meeting is then held with the translators, the translation reviewers, and other members of the team, to discuss the translated versions of the instrument. From this meeting, a reconciled version of the translated instrument is produced which then goes to the adjudicator(s), who make final decisions. The

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<sup>46</sup> Most recently this approach has been presented and discussed in a new book by Janet Harkness and her colleagues (Harkness et al., 2003 and Harkness et al. 2002).

<sup>47</sup> Schoua-Glusberg (1992).

<sup>48</sup> McKay et al. (1996).



data collection instrument is then pretested. After the pretesting is complete, the adjudicator and other committee members convene again to make decisions that will result in the final data collection instrument ready for the field.

This description of the committee approach is a general one and, in practice, there are variations within these steps. For example, depending on the instrument undergoing translation, time and effort can be saved if the translators work independently on different portions of the instrument. At the review stage the translators and translation reviewers go through the entire instrument as a group.<sup>49</sup> Another example of possible variation within the committee approach is the extent to which different members of the team are used in the review and adjudication process. Subject matter specialists and team members with questionnaire design expertise may be brought in at any of these stages. In some cases a couple of rounds of pretesting and adjudication may be needed before the translated instrument is finalized and fielded.

Which variation of the committee approach is used in a given project depends on factors such as time, staff, money and other resources available for the project, and the scope and nature of the project. Regardless of the variation that can occur within the framework of the committee approach, it must be acknowledged that the translation of data collection instruments is not a solo activity or an exercise performed in relative isolation. The committee approach also views the translation of surveys as a process requiring the participation and cooperation of a number of individuals with complementary skill sets and professional experience. The committee approach as described here is recommended by this guideline.

### **What the Future Holds**

There is a clear need for direction on the development of high-quality questionnaires in multiple languages. This guidance should be based on practical experience as well as sound research. The requirement for such guidance has been acknowledged by key statistical agencies throughout the world, locally based organizations (mostly in the area of health care delivery), and professional researchers in the fields of cross-cultural studies and survey methodology.

There have been encouraging developments in recent years as well as ongoing efforts that are beginning to heed the call for guidance in the development of questionnaires in multiple languages. Recent publications like the Behling and Law (2000) volume and the McKay et al. (1996) article are beginning to provide valuable information. The work of Janet Harkness and her colleagues, most recently documented in book published by the Wiley Series in Survey Methodology (Harkness, et al. 2003) and the newly established international Comparative Survey Design and Implementation (CSDI) working group founded by Janet Harkness and sponsored by ZUMA will continue to advance our knowledge in this area in the coming years.

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<sup>49</sup> See Policy Research Methods, Inc. (2001) for a summary expert panel discussion on this variation of the approach.



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