Translation as a Strategy for Effective Communication with Patients and Clients: A How-To Guide

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Introduction

Over recent decades, immigration and the growth of minority populations have made the United States increasingly multiethnic and multilingual. In 2000 the number of foreign-born persons in the U.S. had reached 31.1 million (11.1% of the population), a 57% increase over 1990 (U.S. Census Bureau 2002a).

The increase in linguistic diversity is striking. In 2000, according to U.S. Census figures, 46.9 million people, or 17.9% of those 5 years of age or older, spoke a language other than English at home, up from 13.8% in 1990. Significantly, in the 2000 Census 8.1% of the Census sample reported that they spoke English less than "very well" (U.S. Census Bureau 2002b).

These demographic changes have important implications for the provision of health care, and especially for oral and written communication with patients and clients. One can no longer afford to assume that patients speak English or that print materials written in English will be accessible to all clients. Today, in nearly every part of the country, providers of health care and health information must have the ability to communicate in one or more languages other than English.

This guide is addressed primarily to individuals responsible for written communication from health care organizations to their patients and clients who do not read English. Its purpose is to offer step-by-step guidance in planning and carrying out this responsibility. Readers interested in learning more about theory and methods of translation applicable to written communication across language barriers are referred to Downing and Bogoslaw 2002. For an extended discussion of cultural adaptation of written materials intended for Latino readers, see Givaudan et al. 2002.

To be effective, written communication must always be done with a purpose and an audience in mind. These considerations are basic to deciding on the content, format, and organization of the message, as well as the medium: the style, reading level, and language of the text.

Health care organizations use many types of written texts, as well as other media such as video, to supplement their oral interactions with patients and clients. In English-dominant countries such as the United States, these materials are generally prepared and made available in English by default. Then, at the same time or later, consideration may be given to translating the text into one or more additional languages. (Of course, in some locations, signage and other materials are routinely and concurrently made available in Spanish and/or other languages in addition to English.) We take the position that rather than starting with the question of which texts should be translated into which languages, there should first be a broader consideration of which messages need to be communicated to which audiences through which media. Translation of an English-language text is just one communicative option.

In elaborating on this idea, we will focus on communicating with patients/clients who have limited English proficiency (LEP). We will at times specifically reference those in Latino communities in the U. S. who speak and read Spanish, but most if not all of our discussion will apply to other languages and other LEP patients and clients as well.

I. A Starting Place: Planning for Effective Written Communication with Patients and Clients Whose Primary Language Is Other Than English.

A. Needs and Resource Assessment

Rather than simply responding to requests for translations—whether from clients or from health care providers—it makes sense to begin with a systematic assessment of needs and resources. Appropriate starting places are U.S. Census data and a local assessment to determine what languages are spoken within the catchment [Bruce—I'm not sure what this term means—LB] area, and how many of those who speak other languages at home have limited English skills and limited literacy skills (in either language). This information is essential for further planning and action. Here we will assume that the demographic information has been collected, and thus we will focus on the next step: determining the communication and information needs of a specific LEP (limited English proficient) population, using Spanish-speaking Latinos as an example.

> Needs analysis:
> What information does the Latino community need, in writing, in Spanish?
> What do providers want to convey to Spanish-literate clients in written form?
> What texts already exist, in English and in Spanish, to fulfill these needs?
> How adequate are they?
> If translated, how good is the translation?

To answer the first of these questions will require cooperation with Latino patients and clients, as well as partnering with community leaders and organizations. Surveys (in Spanish) among Latino patients, focus groups conducted by community organizations, and interviews with key informants are some of the ways of getting the needed information, such as:

> What are the major health-related issues in the community?
> What are the information needs in areas of concern such as family planning, prenatal care, drug and alcohol abuse, communicable diseases, vaccinations, and so on?
> Do community members with limited English proficiency know how to access needed health care and how to pay for it?
> What does the Latino community see as their most important information needs?

Other essential information that will need to be known or gathered includes information about the intended audience or readership: basic demographics, literacy and education, cultural beliefs and practices, and channels of communication that are most likely to reach those who need the information.

On the provider side, one needs to assess not only what sorts of health information providers see as most needed by members of the Latino community, but also what are the standard forms and information sheets that are routinely used with all clients and those involved with specific tests, procedures, and care plans. Other types of communication that need to reach Spanish speakers might include publicity, advertising and insurance information. Signage and information on how to access interpreter services are special needs of this population.

All of these means of written communication, from individual wall signs and prescription labels to brochures and enrollment booklets, will be referred to here as "texts."

We suggest creating a listing, as specific as possible, of the types of texts, identified through the needs assessment, that ideally would be made available in Spanish. Each item on the list should be tagged to indicate whether it already exists in English and/or in Spanish (in an available, correct and current form).

It may be helpful also to categorize the needed texts into three types, as illustrated below. This listing will be helpful at later stages of the planning process.

A	B	C
Texts to be returned to the provider organization for their use	Texts addressed to all patients, with uniform content and format	Texts expected to need significant adaptation to the needs, beliefs and understanding of the readers
Enrollment forms	How to prepare for surgery	Dietary advice/information
Health history	Instructions for wound care	Family planning information
Contact information update	Why to stop smoking	How to stop smoking
Application for assistance	Description of a study or procedure	Lead poisoning of children

Although we have divided the text types into three categories, A, B, and C, there is actually a RANGE of text types, and various considerations might place a given text into one or the other of these categories.

What is important is to recognize that texts of type A, although addressed to the LEP client, are actually intended for the use of the provider; they are *sender-oriented* messages. Those in category C, on the other hand, are very much *recipient-oriented*: they are intended to be readily understood by the reader, and in many cases, to persuade the reader and move the reader to action. Recommendations about how to stop smoking, how to prevent the spread of AIDS, or why to report domestic violence are examples of the latter. This is where, in preparing the Spanish text, attention to the readership and the goals of the communication are most important. Texts in category B are intermediate with respect to the communication needs of provider and patient. They tend to contain routine, factual information and to require less attention to audience characteristics than those in category C. Texts in category A are routine, data-oriented, and generally call for the least attention to cultural characteristics of the Latino audience (although cultural differences can never be ignored).

B. Prioritization

This is perhaps the point at which to think of priorities. Value considerations such as need, urgency, and cost must determine which texts should be developed first and whether some might be postponed or eliminated from the list (Engler 2002). What is the relative importance of each of the items listed to the Latino community you are trying to reach? What is the importance to the providers in terms of quality of care, efficiency of communication, etc.? What will be the relative cost of preparing each text? Answers to these questions may lead to a further categorization of each text according to *priority categories* such as Urgent, Near-term, Long-term, and Dependent on Resources. (Some of the cost factors may not be known until other decisions are made, as outlined below.)

II. Translate or Create? Choosing a Strategy for Effective Communication

The next step is to decide how to go about producing any particular Spanish-language text. Rather than beginning with the assumption that an English-language "source" text is to be translated, it is better to begin, as we have said, by considering the "target": the purpose and intended audience of the communication. With goals clearly in mind one can then ask whether translation is or is not the best way to reach the objective.

In each case one needs to consider, and ideally write out, 1) the purpose and 2) the intended audience of the proposed communication.

1. What is the communicative goal of the desired Spanish-language text?

Function analysis will consider the subject matter and the rhetorical purpose of the communication. Purposes or functions fall into categories such as informing, requesting information, instructing, giving directions, persuading, warning, etc. How would you describe the specific aims or purposes of the proposed communication?

2. What are relevant characteristics of the intended audience?

Audience analysis will assess the nature of the readers (demographics, culture), diversity, literacy, etc. Relevant aspects of culture may include such areas as beliefs about the causes of illness and the efficacy of certain treatments; understanding of anatomy and body functions; understanding and acceptance of medical concepts; familiarity with U.S. health systems; preferred means of communication (narrative, dramatization, questions and answers); and sensitive issues, taboos, etc.

Function and audience must be considered together before proceeding to the next step. What level of understanding can be assumed in order to inform a particular readership about the topic? What approach is most likely to be effective in persuading the readers to follow a recommended regimen?

> 3. <u>Is there an existing English-language text which, if translated, can achieve the communicative objective for this audience?</u>
>
> *Source text analysis*, informed by the function and audience analysis, asks whether translation is or is not the best means of creating the desired text. Is there a text written in English that can be *directly translated* into Spanish for the purpose? Is there an English text that can be *adapted*, perhaps with additional explanation of assumptions and concepts, to create the desired Spanish text? Or would it be more effective and more efficient to start from scratch, *creating a new document* in Spanish instead of translating from English?

Generally speaking, texts of the sort categorized under "A" in the table above are most suitable for direct translation. It may be essential that the Spanish version of an application or survey instrument correspond as closely as possible to the versions written in English or other languages. Communications on the "C" list, those intended to inform and persuade the readership, are the ones most likely to call for creation of a new document; their function does not require that the rhetorical approach and content be the same for different audiences. For communications of this type the best option may be not to create a written document at all. Instead, for certain types of audience-specific communication, visual or audio media, with or without dramatization or narration, may best serve the communicative purpose. Thus there are four clear options for a given communicative purpose, as follows:

1. *Direct translation*. Here it is assumed that there is an English language text that, translated directly into Spanish, will serve the communicative purpose: the function and audience that the original author had in mind is essentially indistinguishable from the function and audience of the text when translated into Spanish. Again, this option is most likely to be appropriate for forms, research instruments where uniformity across versions is important, and for simple instructions such as for wound care, where cultural factors are assumed to be irrelevant. In the special case of diagnostic instruments such as depression scales, where it is essential to assure comparability across versions in different languages, careful translation must be followed by validation of each translation.

2. Adaptation. The assumption here is that to create the desired text in Spanish one can start with an existing English-language text, and, with appropriate modifications, produce a translation ("transadaptation") that serves the communicative purpose. The modifications can be made in the English text before translation, can be made by the translation vendor during translation, or can be made by a subject-matter specialist, in Spanish, after the basic document is translated. The adaptations may include adding background information or explaining terms that the original author assumed understanding of, making the text more explicit or simpler with respect to reading level, or adding content specific to the new audience and communicative purpose. In general, the Spanish-language version that results will not necessarily reflect the content and rhetorical aims of the original author but will be faithful instead to the translation's communicative purpose. (See Downing and Bogoslaw 2002 regarding the functional theory of translation.)

3. *An original Spanish-language text*. If your analysis determines that there is no appropriate English source text, or that a translation, even with adaptations made for a new purpose and/or audience, does not fill the bill, the best approach may be to draft a totally new document in Spanish. This approach will allow you to choose freely the format, content, rhetorical approach, and reading level most appropriate to the intended readers. This may be the approach chosen for various kinds of targeted outreach, such as advertising a health plan or for a campaign to promote lifestyle changes, where it is most important to express ideas in a way that takes into account the attitudes and beliefs of the patient/client. When this approach is chosen, the writer should ideally be a native speaker of Spanish who knows Latino culture well, and who is able to articulate the message. Community review of the draft text, which we recommend for all translations (see III, B, 7 below) is also useful for assuring the acceptability of non-translated texts, whether written in English or in Spanish or any other language.

4. *Non-text (visual/audio) media*. Rather than considering only print media, organizations often decide that visual and/or audio media may be the best way of appealing to the intended audience, especially with health information and promotion, where cultural appropriateness and acceptance by the audience is important.[1] Low literacy levels in the target population would be one reason for choosing this approach. If the aim is to avoid reliance on written text to convey the message, media such as cartoons, posters, and audio (voice) recordings might be needed. Adaptations (alternative formats) to reach those members of the Latino community who are visually impaired should also be considered.

By definition, direct translation is the approach that requires the least cultural adaptation for the intended Latino readership. Either the English-language source text is already culturally appropriate (perhaps designed to communicate with individuals from many diverse cultures) or cultural differences may be largely irrelevant (as in the case of factual notices or some brief questionnaires). But one needs to keep in mind that even the most universal of texts may require adaptations of certain kinds. Where an English source text explains what to do when the baby has a fever, it makes sense in a Spanish version to convert temperature references from Fahrenheit to Centigrade for parents who are used to thinking about and measuring temperatures in metric terms. The two temperature scales are a simple and clear example of how even the same phenomenon can be conceptualized in different ways. The example illustrates also the principle of adapting the text to the

[1] An example is the choice of a dramatization recorded on video as a medium for promoting breast self-examination by Latina women. Such a video was produced by an undergraduate student at the University of Minnesota, Claudia Fuentes, as an alternative to the usual leaflets and posters. The short drama introduces the why and how of breast self-examination through informal conversation in Spanish among a group of women who socialize together.

reader rather than expecting the reader to deal with the health care provider's conceptual world directly; the provider is probably better equipped to make the metric-to-English-system conversion if that is needed.

Creating appropriate new written materials, video, etc., in Spanish for a Spanish-speaking audience is no different from creating written and visual/audio media in English for an English-speaking audience. Translation, however, presents very special challenges. For this reason, the remainder of this paper will be devoted to a discussion of producing a direct translation or adaptation of an English text, when that is the preferred approach.

III. In Other Words: Organizing and Managing a Translation Project

A. Responsibilities of the Translation Initiator/Manager

Once the "translation initiator" (i.e., the person or group responsible for communication to non-English-speakers) has defined the audience and determined what material will be translated, it is time to select a translator. In most cases, in fact, this will involve selecting or forming a *translation team* who can work together to complete the project. Because, these days, there is such a variety of technical information in specialized fields that needs to be translated, and the formats of delivery have become so sophisticated (desktop publication, HTML documents, color brochures, etc.), the translation industry has become highly interdependent. In other words, an individual translator typically works closely with content developers, editors, graphic artists, and consultants, as well as other translators.

(At this point, we will begin referring to the translation initiator as the " translation manager." The translator or translators and those who work with them will be referred to as "the translation vendor," recognizing that the work may be done in-house. Everyone involved in the project will be referred to collectively as "the translation team.")

Early in the process, the translation manager will need to decide how much responsibility to take for forming and coordinating the translation team. If the manager works with a translation agency, much of the coordination described above will be the agency's responsibility—thus saving time and effort for the manager, but generally involving a higher cost. On the other hand, if the manager selects an individual translator, she or he will also end up selecting a support staff of editors, reviewers, and consultants to review the quality of the translation product (see section III.A.3 below), as well as graphics experts to prepare it for publication (see section III.C below).

Prices for translation projects depend on many variables, including the length and number of documents, their subject matter and complexity (e.g. reading level and frequency of technical terms), the source and target languages, the types of quality control measures desired, and the amount of layout work and inspection required. In general, translation per se (see section III.B, step 4 below) is billed by the word. Other services—including editing, proofing, consultation, layout, and inspection—are billed by the hour.

Prices for Translation. When negotiating prices with a translation vendor, the translation manager should determine at the outset whether the per-word rate is calculated according to the word count of the source language or that of the target language. According to statistics recently compiled by the American Translators Association based on 1621 responses from ATA members working in 14 languages, the median price per word varied between 12 cents and 20 cents (ATA 2003, p. 29); respondents did not specify whether their rates were derived from source- or target-language word counts. We should also note that the responses were grouped according to language pairs: for example, rates for English-to-Chinese translation were grouped separately from rates for Chinese-to-English translation, and rates varied somewhat depending on the language pair..

Prices for Other Services. Among the same pool of respondents cited above, median prices per hour within a given language pair ranged from $ 32.50 to $ 50.00 (ATA 2003, p. 31). However, the survey did not ask respondents to specify which services they billed by the hour; therefore, these hourly rates encompass an array of services that include oral interpreting (which is not discussed in this paper), written translation, editing, and other tasks requiring language expertise such as voice-over work. It is also worth noting that, if one needs review or consultation from an expert in a specialized field (as described below in Section III.B, steps 6 and 8), hourly fees may be considerably higher—especially if a practicing professional such as a lawyer or doctor must be called upon to define or verify terminology. Fees for services not directly related to language issues—layout work, desktop publishing, printing, and distribution—will not be discussed here, although these tasks are of course essential to the overall translation process.

The project manager would do well to keep in mind that, as in any profession, prices are largely commensurate with level of education, degree of professional training and/or certification, and amount of experience. Therefore, it makes sense to begin the following list of specific responsibilities by defining the “baseline” selection criteria for translators, editors, and other members of the translation team.

1. *Judging the qualifications of the translation vendor.* In general, translation staff should be selected based on their level of formal education in their native language[2], their amount of education and life experience in the United States (assuming that they are translating for populations of immigrants in the U.S.), and their prior translation coursework and experience. An important point to remember is that simply being bilingual to some degree does not make one a good translator. One must possess a high degree of literacy and proficiency in two languages. Cultural understanding and sensitivity are also essential. And onemust also have developed the capacity to express in one language what one has perceived or understood in a different language. Training and practice are the only ways to acquire the very particular skill set required for translation. The American Translators Association (ATA) offers a rigorous examination that accredits translators in a given language pair and direction (e.g. English to Spanish)—see Appendix C for details. However, ATA accreditation does not guarantee understanding of the cultural assumptions of the target readership or expertise in a given subject area

[2] Translators are usually expected to be native speakers of the language *into which* they translate.

(such as medical terminology). Furthermore, there are many accomplished translators who are not ATA members, or who have not taken the accreditation exam. Translation editors normally need to be qualified translators as well. For consultants and reviewers, translation skills are not as important; familiarity with the subject matter of the translation and/or the culture of the intended readers is more essential. Criteria for these quality-control personnel will be discussed in more detail in section III.B below.

2. Giving instructions to the translation vendor. The selected translation vendor needs to be told, at a minimum, the following: the nature of the target audience (national origin, age range, amount of education, reading level); the purposes and intent of the documents, including where, when, and by whom they will be used; and the desired format of the final product (brochure, bilingual information sheet, electronic publication). In general, the translation vendor should be advised as to how much adaptation (if any) is expected in order to accommodate the purposes of the project. Other kinds of information will also be helpful, such as definitions of specialized terms (including acronyms, abbreviations, and job titles), and reliable terminology and/or translations or (better yet) original texts that already exist in the target language. If the manager does not provide this "other information," it will be the translator's responsibility to request or locate it (see below in section III.B).

3. *Reviewing the translation product for quality*. There are a number of steps that the translation team can go through to ensure an accurate, culturally appropriate, and idiomatic translation. These steps (to be detailed below) include editing, consultation, community review, content/policy review, and back-translation. Back-translation is perhaps most useful for assessing whether there are any glaring terminological errors, omissions, or additions in a translated text. It can also identify some mistranslations or misunderstandings of the original text, but can let some overly literal translations slip by; errors in accuracy can more reliably be flagged by an editor or consultant who is a native speaker of the target language. Back-translation is quite ineffective in assessing how naturally the translation reads in the target language; stylistic naturalness needs to be judged by native speakers of the target language. Other stages of quality control will be discussed in more detail in section III.B.

B. Responsibilities of the Translation Vendor

What follows is a step-by-step summary of the stages through which a translation vendor can guide a project, in cooperation with other members of the translation team.

1. Document assessment and estimate. After making an initial examination of the document(s) that require translation, the vendor provides the manager with an itemized estimate that covers all applicable services, including background research, translation, editing, project management, and others (see below for details). We should note here that, if the manager has decided to form the translation team on his or her own initiative (see section III.A.1 above), then many of these services will be arranged and performed separately.

Potential terminological questions and other difficulties in the translation process (e.g. special fonts or formatting) are often discussed at this stage. Questions of visual form are also raised at this point. For example, would the document best suit its purpose and audience by being presented only in the target language, or in two languages at once? If both languages are chosen, will the document be a "facing translation" (with even and odd pages composed in separate languages), or will the two languages be interspersed on the same page? If photos or other graphics will be included, are they appropriate for the target audience, or will other images need to be substituted? (For further discussion of the use of photos, see Albin 1998.)

2. *Document analysis and clarification.* When the translation manager provides the vendor with final copies of all source documents, including electronic copies, the translators carefully read through all sections of all documents to make sure that they completely understand the message. The translators should now make a list of all terms, abbreviations, and phrases in the source language that prove difficult to understand from context. Members of the translation team, including content providers, policy experts, and others go through the list together point by point to clarify the content. At this stage, the translation team should also assemble any terminology in the target language(s) that has previously been approved by the translation manager's agency or another recognized authority in the given subject area.

3. Preparation of instructions and material for translators. Based on information gathered in the consultation (see previous step), the translators compose a guide sheet or "working glossary" of key terms and definitions in the source language and the target language. This step gives the translators a crucial "head start" in resolving the most difficult points of their task. If a translation vendor is employing or sub-contracting with other translators, the vendor's project manager makes an assignment sheet for translators, notifying them of their duties, deadlines, and pay; this sheet also gives special instructions as determined by the various members of the translation team, such as: "keep acronyms in English"; "leave telephone numbers blank"; "arrange text in paragraph form." In some cases, the translation manager and the vendor can work together to make annotations on the source document, particularly to refer translators to previously translated documents on similar subjects. At this point, all translators working on the project should have a complete set of tools to work with (see Downing and Bogoslaw 2002), i.e., dictionaries, glossaries, previous translations, and any other applicable reference materials.

4. *Draft translation.* Even though this stage depends mainly on the individual translator's knowledge and expertise, all members of the translation team communicate regularly—first to confirm that everyone is working with the proper *texts* and *tools*, and later to check whether the translation is proceeding smoothly and on time. Typical tasks on which various team members need to collaborate at this stage include communicating questions and answers from the translator to the translation manager; locating additional terminological information in specialized dictionaries (e.g. legal, medical) in print and online; and providing technical assistance with fonts, software, and necessary computer operations. When desktop publishing or special layout tasks are part of the translator's

responsibility, it is generally most expedient to complete these tasks in conjunction with the draft translation. If the translation manager plans to do the layout work “in house” or delegate it to a different vendor, the translator should take care during this stage to arrange the translated text in a way that the graphics staff can easily work with it. Sometimes an appropriate method is to alternate the source-language and target-language text paragraph by paragraph.

5. *Proof and initial inspection of draft.* Before the translated draft is passed to an editor, consultant, or reviewer, the translator needs to check that the electronic file is readable, and that the translated text contains all the sections of the original document. Initial cosmetic work is also done at this stage, such as making font types and sizes uniform, lining up indents, and fixing margins.

6. *Editing, consultation, review.* It is highly recommended that a translation go through at least one of these steps. Those responsible for these tasks are bilingual specialists different from the translators, sometimes with specialized training in the subject area of the documents. *Editors* compare the translation sentence by sentence with the original text, checking in particular for consistency and correctness of terminology, mechanical accuracy (typing, spelling, grammar, punctuation), and appropriateness of style and reading level. *Consultants* are brought in to check the accuracy or appropriateness of specific terms; for example, a bilingual legal expert may be consulted on the translation of a consent or advance directive. *Reviewers* can assist in at least two different ways, discussed in sections 7 and 8 below.

7. *Community review.* This type of review focuses primarily on assessing how clear, understandable, and otherwise appropriate the translation is to the target audience. Community reviewers, usually three or more native speakers of the target language, are selected with an eye to diversity in age, gender, and dialect or region of birth. The reviewers may be provided only with a copy of the target-language text; however, to gauge better the accuracy of the translation, bilingual reviewers should be selected and provided with copies of both the source and target texts. After reading the documents on their own—and perhaps taking notes on problem areas—the reviewers meet to share their opinions. This meeting is in effect a focus group, and should therefore be facilitated by a separate person who is familiar with both the source and target languages. The facilitator should also prepare a written report on the review panel’s findings and present it to the translator(s) or project manager.

If possible, a similar group of monolingual speakers of the target language should be convened to provide their own feedback. The management of the community review can be delegated to a community organization that is part of the translation team.

8. *Content/policy review.* This task ideally involves a bilingual person who is especially familiar with the translation manager’s organization and services. For this reason, the translation manager often designates one of their own staff members or colleagues to conduct this review. The purpose is to verify that the intentions of the author(s) are faithfully and accurately conveyed. If no such reviewer is available within the translation

manager's organization, an alternative is to call upon a bilingual professional who works in a field pertinent to the material being translated (e.g. a doctor could be consulted to review instructions for wound care, or a lawyer might review a patient bill of rights). In the absence of any qualified reviewer capable of reading the target language, the translation manager may consider a two-step process: (a) a second translator back-translates the materials into English; then (b) a qualified English-speaking reviewer compares the back-translation to the original document(s) to verify that the information is being communicated accurately. Both the reviewer and the manager need to bear in mind, however, that there will inevitably be marked differences in the wording and style of the two English texts (see our comments above concerning the strengths and weaknesses of back-translation).

As with community review, a written report or evaluation should always be prepared to present to the translation vendor. If there is a difference of opinion between the translation vendor and a reviewer designated by the translation manager, then a conference should be held between both parties, either in person or by phone, so that both sides can explain the grounds for their position. Members of the translation team need to be clear on who makes the final decision in the event of such a disagreement, and on what basis (reading level, stylistic "correctness", cultural appropriateness of the content, linguistic features of the target audience, etc.).

9. *Delivery to translation manager.* After all editing, consultation, and review have been completed, the vendor transmits the final copy to the translation manager by whatever means and in whatever form the manager specifies. The final form of the documents (e.g. Microsoft Word file, desktop publication, PDF file, camera-ready copy) depends on the translation manager's plans for production, reproduction, and delivery to the end users. The manager should inspect the translated documents carefully upon receipt to verify that they are in the proper format; that they can be opened, read, and printed with the manager's computer hardware and software; and that they otherwise meet the manager's specifications. If the manager is handling the layout "in house" or delegating it to a different vendor, the document goes through the stage of inspection detailed below.

10. *Layout and translator inspection.* After the layout is complete, the document is sent back to the translator for inspection, either as a source file or as a PDF file. Usually this type of inspection concentrates only on content (the positioning of the right words in the right place), rather than form (font size and style, graphics, borders). If the translator has the technical capability to work with the source file, then the final edits can be done directly at this point. When working with PDF's, the translator and layout staff should both use the most recent versions of Acrobat Distiller (5.0 and above) or similar software, which allow the user to make annotations electronically within the actual PDF file—including highlights, Post-it© notes, and a range of "blue pencil" proofreader's marks. This annotated copy can then be transmitted electronically back to the layout staff, who can implement the changes with minimal margin for error.

C. Record-Keeping

Even if only one document is being translated, it is essential to keep track of versions of the source text, the target text, and the correspondences between them. Spanish language documents must be identified so that non-Spanish-speaking staff can recognize and use them. When multiple texts are being translated into multiple languages and handled by many individuals (who may or may not be able read the texts they are responsible for) there must be a system providing for careful management and systematic record-keeping.

When a translation project is complete, the various members of the translation team should save their own copies, as well as copies of whatever guide sheets, term lists, and working glossaries were developed over the course of the stages above. If the vendor uses computer-aided translation software, all new translations should as a matter of course be added to the database. *An increasingly large part of translation business is revision of previous copy.* Therefore, the systematic archiving and tracking of previous text versions, in both the source and target languages, is crucial to building a viable knowledge base and efficient translation process in the long term.

For consistency and also to save effort on the part of the translator it is essential to keep track of *terminology* used in the English source text and the translation equivalents that have been used in previous translations. Niska (2002) offers a concise and practical discussion of concepts and good practices in terminology management.

With these steps the translation process reaches an end, leaving the initiator/manager and the translation team ready for their next cross-cultural communication task.

D. Final Steps

Publication and distribution—getting the text into the hands of the intended recipients—are important final steps of the process. These steps are not specific to translated documents and so are not detailed here. But it must be kept in mind that distribution also falls within the purview of the translation team and must also be sensitive to characteristics of the target audience.

Appendices

A. Pooling resources – translation banks, jointly undertaken translation projects

Costs of translation can be minimized by 1) locating (or sharing) previous translations and original materials in the target language that are appropriate for re-use and 2) cooperating on an enterprise-wide, regional, or national basis to share the costs and benefits of new translations and other target-language texts. The New South Wales (Australia) Multicultural Health Information Site, http://www.mhcs.health.nsw.gov.au/, shows how this can be done. The site also offers practical downloadable guidelines for managing translation projects. Poss, Santucci, and Mull (1998) list other resources for locating previously translated materials, including the Office of Minority Health Resource Center, the Patient Education Resource Center (PERC) at San Francisco General Hospital, and COSSMHO.

An example of regional cooperation in translation is The Translated Health Resources Exchange, a Minnesota project, described as "a new way to share translated health education materials." For information contact Health Advocates, on the Web at http://www.healthadvocates.info.

B. Automatic translation and translator aids

Bennett (2002) summarizes the history and current uses of machine translation and translator aids such as terminology management and translation memory software systems. The use of electronic translation aids is capable of bringing down the cost of translation by increasing translator efficiency. However, for the purposes discussed in this paper, totally automatic translation is not feasible at this point—human translators are still needed if quality of communication is to be achieved.

C. Sources of assistance and information

American Translators Association.
http://www.atanet.org. This Web site includes the ATA *Code of Professional Conduct and Business Practices*. The ATA tests and accredits translators in multiple languages and publishes a directory (ATA, 2002) in which accredited translators are listed by language, location, and specialties. Listings for individual translators and language service companies are available online at http://www.atanet.org/bin/view.pl/18756.html.

ASTM (American Society for Testing and Materials)
http://www.astm.com. ASTM is a national organization that oversees the preparation of standards in various fields including language services. Its Subcommittee F15.48 has been charged with preparing a "Consumer-oriented Guide to Quality Assurance in Translation and Localization" (working title) with support from the American Translators Association. When published, the ASTM Guide will offer advice based on the consensus of a working group of translators, translation vendors, and purchasers of translation services. (See Wells 2002, 159-160).

Office for Civil Rights, Department of Health and Human Services. http://www.hhs.gov/ocr/lep/. The "LEP Guidance" addresses legal requirements for written communication with patients who have limited English proficiency as well as for the provision of spoken language services.

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