

SOCIAL INCLUSION

Text optimization for translation and readability in a multilingual world

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Professional communicators in all contexts—from the local to the global—are increasingly called upon to reach multilingual audiences, sometimes with the support of effective translation, and sometimes without such support. When professional translation will not be performed for all members of the target audience, other techniques are needed for crafting texts that readers can comprehend in the source language or translate adequately using free online translation tools. The study reported here tested the usefulness of Kohl's (2008) Global English Style (GES) as one such technique. Specifically, the study examined whether GES could make government-participation web pages more accessible for readers who have limited English proficiency. Ten multilingual readers of English and Spanish and ten readers of English and Vietnamese evaluated machine translations of a government web page that violated GES, and translations of the same text after application of GES. Participants also compared the readability of English text before and after application of GES. Results showed that GES had a neutral or positive effect on the perceived quality of Spanish and Vietnamese translations, with a stronger positive effect noted in the Vietnamese translations. Among all 20 participants, 17 (85%) rated the English text easy to read after GES was applied, while only 5 participants (25%) rated the original text easy to read. In a direct comparison between the original text and the GES version, 16 participants (80%) said the GES version was easier to read, while 2 (10%) noted no difference in reading ease and 2 (10%) found the original version easier to read. The results of this study indicate the promise that GES has for helping professional communicators bridge language barriers for diverse audiences, and suggests that further research into the effectiveness and applicability of GES is warranted.



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Technical writers are increasingly called on to prepare texts for translation or to improve readability when translation is not feasible (Batova, 2013; Flammia, 2005; Haara, 1998; Hartley & Paris, 1997; Hayhoe, 2006; Gneccchi, Maylath, Mousten, Scarpa, & Vandepitte, 2011; Maylath, 1997; Melton, 2008; Spyridakis, Holmback, & Schubert, 1997; St. Amant, 2013; St. Germaine-McDaniel, 2010). This paper examines the context, tensions, and a potential solution for the specific case of government professional communicators in the United States (US) who face increasing pressure to reach linguistically diverse audiences in order to be transparent and engage a diverse constituency in participatory governance. Many U.S. government agencies and nonprofit organizations serve communities with limited English proficiency, but may have limited funding for translating their English-language business writing for those audiences. As a result, the organizations may fail to reach communities that are most in need of their services.

This article reports on research that investigated whether applying Kohl's (2008) Global English Style (GES) guidelines might reduce language barriers in the type of government and nonprofit business writing that would not be professionally translated. Using online survey responses from Spanish and Vietnamese bilingual/biliterates, the project explored two specific questions:

1. Would applying GES guidelines improve the readability of English text for native speakers of Spanish and Vietnamese?
2. Would applying GES guidelines to a text improve the quality of its translation into Spanish and Vietnamese by Google Translate?

While applying GES guidelines and using Google Translate does not compare with the efficacy of professional translation, it may be an option of last resort to

enhance communication with linguistically diverse audiences for organizations with limited resources.

Engaging Diverse Audiences Online

Professional communicators who work for government agencies in the US are confronted with a double challenge that demands practical solutions: agencies are increasingly pressed to rely on their websites to increase participatory governance, and government audiences increasingly include individuals who have limited English proficiency (LEP). Pandya, Batalova, and McHugh (2011) report that between 1990 and 2010, the LEP population in the United States grew by 80% (p. 3). Despite the growing need to engage linguistically-diverse audiences, government agencies continue to rely on English-language websites that offer few translation options for LEP audiences. In a study of 90 federal agency websites, Rowland-Seymour (2001) found that only 15% of the sites had mirror websites in Spanish, and only one agency had a mirror website in a language other than Spanish. Only eight agencies provided translated text documents in any language other than Spanish on their website (slides 7-8). When English is used as the primary communication tool, professional communicators need new approaches for accommodating linguistically-diverse audiences.

Multilingual encounters between agencies and constituents have burgeoned due, in part, to executive directives to expand participation and to harness the Internet to make government more accessible (Orszag, 2009; U.S. Government Publishing Office, 2009). For example, state legislatures publish electronic information about upcoming public hearings. City planning departments use web content to solicit input on city development plans, and state departments of transportation use the web to solicit public comments on transportation plans. Although many agencies solicit input through combined approaches, for example, by hosting town hall meetings that include interpreters, or using websites that emphasize visual information rather than text, English-language text is often used in tandem with these approaches. For example, town

hall meetings may be publicized on a website, and websites that use visuals may include text that explains interactive visual features of the site.

However, expanded electronic outreach does not ensure equitable opportunities to participate in governance. If language diversity is not taken into account, government reliance on English-language web content may improve access by non-LEP individuals while excluding LEP individuals, thereby perpetuating or even aggravating an imbalance of input and influence, rather than fostering inclusive public discourse.

The limitations of government efforts to reach LEP website audiences fuel a growing need for professional communicators to fill the gap when translation is not an option. Indeed, scholars in the field of translation studies have identified a growing convergence of the roles of translators and technical writers, as demand increases for English texts that are prepared in a manner that reduces the cost of translation (Gnecchi, Maylath, Mousten, Scarpa, & Vandepitte, 2011). Likewise, in order to help LEP readers of even the least-common local languages to have a voice in governance, government writers need to produce text that is easier for LEP audiences to read in English or that produces higher quality translations for LEP users who rely on free online translation tools.

The Executive Mandate to Engage Diverse Audiences

While effective writing has long held an important role in advancing participatory democracy, government writers' responsibility to write comprehensibly has grown more acute as participatory governance has received more emphasis from the nation's highest office. For example, in 2009, President Obama directed executive agencies to "offer Americans increased opportunities to participate in policy-making and to provide their Government with the benefits of their collective expertise and information" (U.S. Government Publishing Office, p. 4685). The memorandum directed the Office of Management and Budget to issue a directive in which Orszag (2009) instructed agencies to "promote informed participation by the public . . . by making [government information] available online in open

formats” (p. 2). What these directives fail to address, however, is the importance of writing website content that is comprehensible to LEP readers.

When LEP readers’ needs are not addressed, language differences result in imbalanced public participation and inequitable social outcomes. In its comprehensive analysis of data gathered in national studies and statewide surveys, the Public Policy Institute of California (2004) looked at public participation rates of various demographic groups. The institute determined that “those who have the most to say in elections are those who are . . . white, older, more affluent, homeowners and more highly educated” (p. 1). The authors went on to attribute the disparity in civic involvement to “differences in economic conditions, English language proficiency, and education attainment” (p. 2). Likewise, researchers Birnback, Chavez, Friedman, and Rowlett (2009), who argued that “Latinos are less likely to be critically involved in their communities” (p. 2), explained that “the most obvious obstacle to Latino involvement in public deliberation and broad-based community problem-solving process is language” (p. 8). The limited involvement of traditionally-marginalized language groups raises social justice concerns because, as Ramakrishnan and Baldassare (2004) argued, “group inequalities in political participation often lead to disparities in citizen influence over legislation and the distribution of policy benefits” (p. v).

Although President Obama’s 2009 directive regarding open government did not expressly address the needs of LEP persons who use government websites, the federal government had previously taken steps aimed at improving LEP individuals’ access to government. In 2000, President Clinton issued Executive Order No. 13166 directing all recipients of federal funds to provide LEP members of society with “an adequate opportunity to provide input” (p. 50122). According to U.S. Department of Justice (DOJ) policy guidance, which augments guidance published in 2000, and which guides implementation of Executive Order No. 13166 (2000), failure to address the needs of LEP readers may constitute discrimination under Title VI of the 1964 Civil Rights Act (DOJ Guidance, 2002, p. 41457). In a 2005 DOJ pamphlet, the agency explained that “the United States Supreme Court in *Lau v. Nichols* (1974) stated that one type of national origin discrimination is discrimination based on a person’s ability to

speak, read, write, or understand English” (U.S. Department, para. 5). Government agencies and organizations that receive federal funding have not only an ethical responsibility and practical need to address the needs of LEP audiences, they have a legal obligation as well.

As DOJ guidance suggests, in order to be truly inclusive, government must be accessible to *every* constituent. Magnini, Not, Stock, and Strapparava (2000) clearly articulated the nature of government inclusion when they wrote that “the fundamental requisite for *transparent* communication is that information is available and reaches every citizen with the same clarity, to avoid disparity” (p. 2). DOJ (2000), in its initial policy guidance regarding implementation of Executive Order No. 13166, acknowledged government’s imperative to communicate effectively with *every* member of society when it stated that “programs that serve a few or even one LEP person are still subject to the Title VI obligation to take reasonable steps to provide meaningful opportunities for access” (p. 50124). However, despite this explicit directive to address the needs of every LEP individual, DOJ’s (2000) policy guidance established a four-factor test for determining “reasonable steps” for reaching some, but not necessarily all, LEP readers. Those factors include

the number or proportion of LEP persons in the eligible service population, the frequency with which LEP individuals come in contact with the program, the importance of the service provided by the program, and the resources available to the recipient [of federal funding] (p. 50124).

So, although overlooking the needs of even one LEP person is probably discriminatory, federally-funded agencies, due to tight budgets, are authorized to make communication decisions based on criteria that may favor the largest minority language groups while excluding the most marginalized groups, simply because the latter groups are a small proportion of the “LEP persons in the eligible service area,” or because those groups access the agency infrequently, a behavior that might itself be due to language barriers.

As with many government mandates, funding shortages are an obstacle to implementing Executive Order No. 13166. DOJ has legitimized cost as a reason for agencies to limit efforts to accommodate the needs of LEP readers. DOJ (2000) guidelines specify that “a small recipient [of federal assistance] with limited resources may not have to take the same steps as a larger recipient to provide LEP assistance” (p. 50125). Nonprofit organizations, which often fit in the category of “small recipients of federal assistance,” provide a case in point. A study by McGinnis (2013) revealed that more than 70% of nonprofit organizations in the state of Oregon rarely or never use translation services (p. 12) and nearly half of the organizations reported that they found translation costs prohibitive (p. 14). Suggestions offered by LEP.gov emphasize reliance on human translation and human interpretation as tools for meeting the requirements of Executive Order No. 13166. However, many recipients of federal funding may be small public bodies and nonprofit organizations with limited resources—and, hence, limited legal obligation—to provide services as comprehensive as translation of their websites. Yet, these organizations may have few alternatives for reaching LEP audiences.

Other obstacles to addressing LEP readers’ needs may include agencies’ ignorance of audience composition, and limited awareness of approaches for serving LEP readers. According to McGinnis (2013), 32% of Oregon nonprofits reported that they were deterred from taking steps to make documents readable for LEP audiences because they did not know their audiences’ proficiency level or primary languages (p. 15). The magnitude of the impact of these barriers may be suggested by the fact that, although 89% of respondents reported that building relationships with LEP audiences is important for fulfilling their organization’s mission, only 8% of the organizations reported that they were “very satisfied” with the readability of their communications, and 30% were not at all satisfied (p. 8). If the response of these nonprofit organizations is any indication, implementation of Executive Order No. 13166 may have been hampered for the very reasons that DOJ (2000) cited: cost of services, unfamiliarity with audiences, and a lack of awareness about needs.

So, although Executive Order No. 13166 has laid a foundation for reaching LEP audiences, it is doing too little to provide access for LEP readers, especially the smallest and most-marginalized language groups, despite DOJ's ideal that no LEP person should be excluded. There are largely unavoidable obstacles to inclusiveness; facilitating language access for everyone is probably not achievable. All the same, federally-funded agencies and organizations might employ additional tools in order to broaden their efforts to make websites more accessible for LEP audiences.

Options for Making Government Communication More Accessible

A variety of potential solutions to the challenges of communicating with LEP audiences online can be considered. For example, efforts associated with the Plain English movement may begin to address the needs of LEP audiences. Similarly, translation may help some LEP audiences. But as yet, few approaches provide practical solutions for professional communicators in the government sector.

Federal plain language guidelines. Government efforts to improve the clarity of government writing for native English speakers have run parallel to government efforts to improve LEP services. Explicit directives to make English text more readable have filtered down from the nation's highest office since the early 1970s. According to Schriver (1997), the Plain English movement was propelled forward by President Carter's 1974 Executive Order No. 12044. At that time, proponents of Plain English Style "called for an end to 'gobbledygook' in government and business documents, demanding communications that citizens could understand" (p. 27). The Plain English tide ebbed in the early 1980s when President Reagan rescinded Carter's order (p. 28). According to Locke (2004), President Clinton revived the movement in 1998 when he issued a Presidential Memorandum requiring all federal employees to use plain language (para. 8).

President Obama gave additional impetus to the Plain English movement with creation of the Plain Writing Act of 2010. The purpose of the Act is

“to improve the effectiveness and accountability of Federal agencies to the public by promoting clear Government communication that the public can understand and use” (U.S. Government Publishing Office, 2010, [2] 2861). Although the Act defines Plain Writing as following best practices that are “appropriate to the subject or field and intended audience” ([2] 2861), it does not explicitly address the issue of communicating with LEP audiences. The law either neglects to consider these audiences, or assumes that Plain English Style will serve LEP audiences well.

Whether Plain English Style even meets LEP readers’ needs is questionable. Thrush (2001) points out that “most of the ‘principles of clear writing’ were developed through research with native speakers of American English” (p. 290). Based on her study of the impact of certain Plain English guidelines on the readability of documents for LEP readers, Thrush (2001) concluded that some outcomes of applying Plain English guidelines—the increased use of phrasal verbs and non-Latinate vocabulary—can make texts more difficult to understand for some nonnative speakers of American English (p. 295). In other words, guidelines that clarify meaning for native English speakers may have the opposite effect for LEP readers.

Translation. Translation may seem to be an obvious solution for addressing language barriers in government communications, and translation, along with interpretation and education in English as a Second Language, have been a focal point of government LEP directives (DOJ Guidance, 2002), but translation is fraught with challenges. Funding limitations hamper many agencies’ ability to maintain translation staff, contract for human translation services, or purchase machine translation software. The short life span of website text, especially time-sensitive text about public comment periods, demands an ongoing—and potentially costly—cycle of writing and translation. And since the linguistic make-up of website audiences is difficult to determine, government agencies are unlikely to be able to provide translations for all possible readers.

As a result, translation is not being used broadly to enhance public participation. According to Ryan (2013), the U.S. Census Bureau’s language

research supports estimates that there are nearly 7,000 languages spoken worldwide. Based on that research, the Census Bureau identified the 381 languages that are most-commonly spoken in the United States (p. 2). The website LEP.gov provides evidence that, despite this vast diversity of language users, federal agencies currently supply translations in only a small fraction of represented languages. The site includes links to the translated materials of 17 agencies, and of these, 10 provide translations in fewer than 10 languages, and four of those agencies provide only Spanish translations. The remaining seven agencies offer between 12 and 50 languages, with one agency translating into 85 languages (LEP.gov, “Resources by Subject,” para. 1). (It is interesting to note that even these links to translated government materials are provided on an LEP.gov web page that is entirely in English.) So, although some government agencies are translating some content into some of the most-commonly spoken languages in the United States, no agencies are reaching all 381 language groups that the U.S. Census Bureau recognizes, and many agencies are translating no materials at all.

The website LEP.gov was established as a tool for implementing Executive Order No. 13166 (LEP.gov, “Mission,” para. 1). Although LEP.gov urges agencies to provide translations, it does so within the framework of DOJ’s standard of reasonableness under Executive Order No. 13166. Based on DOJ’s four-factor test of reasonableness, only *vital* documents need to be translated, not necessarily in their entirety, and only for the most common minority languages. Navigating English-language sites to access select portions of translated texts could be an insurmountable barrier for many LEP readers. The most-marginalized language groups are likely to fall through the cracks when translation decisions are based on DOJ’s standard of reasonableness.

Tailoring translations to the multitude of language groups that could be represented in a website audience would be cumbersome and not feasible for government agencies. And government mandates to meet LEP readers’ needs do not call for such thorough efforts anyway. Also limiting is the fact that LEP mandates govern only federal agencies and federally-funded entities. Many state agencies do receive federal funds and, therefore, would be governed by LEP

mandates, but not all public bodies fall in that category. Consequently, government as a whole has few drivers and few solutions for creating a more transparent and inclusive government process by translating website content. Government professional communicators are left to harness other approaches that may help fill the gap when translation will not.

Editing for efficient translation and LEP readability. Because government professional communicators are taking on a more pivotal role in cross-language communication, as noted by Hartley & Paris (1997) and Gnecci et al. (2011), and in light of the reality that translation is often not feasible, professional communicators need techniques for crafting English text that is comprehensible to LEP readers and well-suited to translation with free online translation tools that readers can use on their own. One such technique is offered by Kohl (2008) in his book *The Global English style guide: Writing clear, translatable documentation for a global market*. Kohl (2008) describes Global English as “written English that an author has optimized for a global audience by following guidelines that go beyond what is found in conventional style guides” (p. 2). Kohl (2008) argues that Global English Style “makes documents that are not slated for translation more readable for nonnative speakers who are reasonably proficient in English” (p. 3). Unlike the *Federal Plain Language Guidelines*, Kohl’s guidelines specifically target LEP audiences.

Kohl (2008) is not alone in suggesting that writing techniques used to prepare documents for translation could make English texts more comprehensible for LEP readers. Momen (2009), in his discussion of linguistic barriers to knowledge transfer in medical scholarship, suggests that “Publishers could make their websites machine-translation friendly” and include “a device (widget) on a website that would allow readers to translate articles into their mother tongues without leaving the webpage” (p. 655). Momen’s suggestion may be equally applicable to government websites where LEP-friendly English text could be supplemented with a website link to a free translation tool such as Google Translate. The combination of Global English Style (GES) and website translation widgets could provide a valuable means for government professional

communicators to create content that allows LEP readers to participate in web-based public engagement efforts.

However, additional testing of GES is needed in order to assess its value for LEP readers of government websites. Kohl (2008) points out that “relatively little research has been done on the effect of specific style guidelines and terminology guidelines on machine-translation output” (p. 6). One translation industry study by Thicke (2011) looked at the impact of Kohl’s guidelines on the quality of machine translations produced from translation engines that had been trained on target terminology, compared to engines that had not been trained. The study used an 880-word passage of text that was well-written but violated several of Kohl’s (2008) guidelines. An unedited version of the text and a version that had been edited to conform to GES were each fed into a trained and an untrained translation engine. The study measured translation quality based on the amount of time translation editors needed to spend correcting errors in the post-translation text. The edited versions of the text fared slightly better than the unedited versions when translated by the untrained engine (p. 39). However, when the trained engine was fed the edited text, the output quality improved greatly. Thicke (2011) reports that “post-editors were able to get away with just a small tweak here and there to bring the sentences up to fully human quality” (p. 40). Thicke (2011) concluded that “the unedited text, breaking the rules of Global English, was more difficult for the machine to understand, just as it would have been for a human reader” (p. 39).

Kohl (2008) describes a pilot project conducted in 2004 by SAS Institute. SAS Institute is Kohl’s employer and the publisher of Kohl’s (2008) book. The project examined the quality of a machine translation produced from source text that did not conform to GES compared to a machine translation of the same source text after it had been edited to conform to the guidelines. The translations were evaluated by professional translators, who rated the translations as excellent, good, medium, or poor. Kohl (2008) reported that

the translations of the Global English versions of the document were significantly better than the translations of the unedited version. The percentage of sentences

that were rated as either Excellent or Good increased from 27% to 68%. The percentage of sentences that were rated as either Medium or Poor decreased from 73% to 32% (p. 6).

Aside from the Thicke (2011) study, and the SAS pilot project (Kohl, 2008), no research has been published on the impact of GES on the quality of translations produced by machine translation engines, particularly machine translation tools that are available free online. Also, no testing of Kohl's (2008) guidelines has been done using text from outside the technology field. Although Thicke's study (2011) used source text that included conceptual language, it relied on instructional text from the technology field. The SAS case study used software documentation as source text (Kohl, 2008, p. 2). Text produced for government websites, particularly text used to explain policies or invite participation in policy-making may be more abstract and conceptually dense than instructional text and software documentation, and therefore warrants separate testing. Kohl (2008) asserted that while

the Global English guidelines were developed with technical documentation in mind . . . most of the guidelines are also appropriate for marketing materials and for other documents in which language must be used more creatively, informally or idiomatically (p. xiv).

Kohl's claim—although reasonable—is yet untested. Also, Kohl suggested that “Global English makes documents clearer and more readable for native speakers, too” (p. 3). That claim would also benefit from testing.

Methodology

In order to emulate the way government writers write, and the way government website users experience a page of website text, the study was designed to do the following:

1. Evaluate translated text and English text at the passage level, rather than at the sentence or word level, since website users encounter full passages of content, and government writers produce web content expecting that it will be consumed as a single unit expressing multiple ideas.
2. Test the overall impact of multiple GES guidelines when applied to a full passage of text, rather than test individual guidelines in isolation, since a writer who edits text to conform to a particular style—especially a style intended to improve overall readability of text—would not alter individual sentences in isolation, or apply only one style guideline per sentence, but would likely apply multiple guidelines and make a variety of changes to improve the overall passage.
3. Test a source text that is based on an actual government web page that invited public input on proposed policy changes, since the purpose of the study is to examine whether GES could make government-participation web pages more accessible for LEP readers.
4. Produce translations using Google Translate because it is a free, widely-used online translation software tool. According to Shankland (2103), “Google Translate provides a billion translations a day for 200 million users” (para. 1).

Survey Design

Feedback about the impact of using GES guidelines on a government text was obtained through four online surveys that were sent to four groups of bilingual readers (Appendix C). Two reader groups were highly-literate in Vietnamese and English, and two were highly-literate in Spanish and English. Each survey contained questions about the readability of an English-language text, and questions about the content and quality of a translation produced by Google Translate of a different English-language text. For each target language, one group of readers evaluated a translation of a source text that had been optimized to conform to GES, while the other group evaluated a translation of the original, nonoptimized source text. All four surveys were conducted using Survey Monkey.

Source texts for the translations were based on a passage from the website of a United States city that was soliciting public input on its proposed development plan (Appendix A). The first author created the original source text—nonoptimized—by editing the passage to fictionalize the identity of the city. Additional violations of GES were introduced in order to provide opportunities to test more of the GES guidelines. The resulting source text remained typical of what an experienced government writer might produce. The first author created a second source text—optimized—by editing the original source text to conform to GES. She then translated both source—nonoptimized and optimized—into Vietnamese and Spanish using Google Translate. All translations were produced within the same five-minute period. The following versions of translated text were produced:

- Nonoptimized source text translated into Spanish
- Optimized source text translated into Spanish
- Nonoptimized source text translated into Vietnamese
- Optimized source text translated into Vietnamese

The survey asked participants to read the translated passage of text and answer comprehension questions about the content. The questions were designed to measure the type of information a reader would need to grasp in order to respond to a website invitation to submit comments about a public policy change.

The survey then asked participants to rate the quality of the translation as a whole using a five-point Likert-type scale. The survey defined a high standard for translation quality: “A very good Vietnamese translation accurately conveys the meaning of the original English text, and does not sound wrong or awkward to you as a reader of Vietnamese.” An analogous definition was used in the Spanish surveys.

The final section of the survey tested nonoptimized and optimized versions of a different English text (Appendix B). The first author selected this new text from a government agency website that was inviting public comment on

a proposed change to a federal rule about food safety. She altered the text to fictionalize the identity of the agency and to introduce additional GES violations. She then created a second, optimized version of the same text by applying the GES guidelines. These passages were not translated. All four surveys asked participants to compare the same optimized and nonoptimized English texts and to rate the reading ease of each text on a five-point Likert-type scale. Finally, the survey asked participants which of the two passages was easier to read.

Survey Participants

Survey participants were recruited after the project was approved by the Institution Review Board (IRB). Four groups of survey participants were recruited through university colleagues and several nonprofit organizations that serve Hispanic and Vietnamese communities in Portland, Oregon, where the study took place. Recruitment inquiries invited adults who self-identified as highly literate in English and Vietnamese or in English and Spanish to contact the first author by email to request a survey invitation. Survey participants were given the option to receive a \$10 gift card as a thank you for completing the survey.

Participants were randomly assigned to a survey type within each language group. Half of the Vietnamese invitees received an invitation with a link to the survey that included the optimized Vietnamese translation. The remainder of the Vietnamese invitees received the survey with the nonoptimized translation. The Spanish surveys were disseminated in the same way. No invitee was asked to review both the edited source text and unedited source text versions of a translation in order to avoid the possibility that seeing the translation twice would allow the participant to become too familiar with the content and less sensitive to the quality of the translation.

Response Rate

Of 45 people who requested the Vietnamese survey invitation, 14 (31%) took the survey. Of 22 people who requested the Spanish survey, 11 (50%) took the survey.

Figure 1

Composition of Survey Groups with Survey Type

Group A—Nonoptimized Spanish <ul style="list-style-type: none">• Five English/Spanish bilingual participants• English Source Text One—<i>not optimized</i> to conform to Global English Style• Spanish translation produced by Google Translate	Group B—Optimized Spanish <ul style="list-style-type: none">• Five English/Spanish bilingual participants• English Source Text Two—optimized to conform to Global English Style• Spanish translation produced by Google Translate
Group C—Nonoptimized Vietnamese <ul style="list-style-type: none">• Five English/Vietnamese bilingual participants• English Source Text One—<i>not optimized</i> to conform to Global English Style• Vietnamese translation produced by Google Translate	Group D—Optimized Vietnamese <ul style="list-style-type: none">• Five English/ Vietnamese bilingual participants• English Source Text Two—optimized to conform to Global English Style• Vietnamese translation produced by Google Translate

The response rate for the study as a whole was 37%. Incomplete surveys were excluded. The survey groups are described in Figure 1.

Data Analysis

Survey Monkey compiled verbatim answers to comprehension tests, and calculated the number and percent of respondents who assigned a given rating to a particular translation. Survey Monkey also provided weighted averages for the Likert scale ratings.

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Results

Likert scale ratings of translation quality were similar for the two groups of Spanish-language participants—weighted average of 3.2. For Vietnamese, the group who read the translation of the optimized text gave it higher ratings—weighted average of 3.2—than the group who read the translation of the nonoptimized text—weighted average of 2.4. Weighted averages indicate the average Likert scale choice among the five participants in each group. Table 1 shows the number of participants who made each Likert scale choice in each group.

Table 1

Frequency of Likert Scale Choices for Translation Quality

Likert Scale	1	2	3	4	5	0	Likert Weighted Average
	Very Poor	Below Average	Average	Above Average	Very Good	Not sure	
Spanish Text Nonoptimized n=5	0	1	3	0	1	0	3.2
Spanish Text Optimized n=5	0	1	2	2	0	0	3.2
Vietnamese Text Nonoptimized n=5	0	3	2	0	0	0	2.4
Vietnamese Text Optimized n=5	0	1	2	2	0	0	3.2

After reading the translated passages, all twenty participants gave correct answers to the following comprehension questions:

1. What is the text about?
2. Who is the text intended for?
3. What does the text tell the reader to do?
4. What will happen if the reader does what the text tells the reader to do?

Among all 20 participants, 17 (85%) rated the English text easy to read after GES was applied, while only 5 participants (25%) rated the original text easy to read. Responses are shown in Table 2.

Survey participants were then asked to rate the relative readability of the nonoptimized and optimized English passage of text. Of 20 respondents, 10% found the nonoptimized text easier to read, 80% found the optimized text easier to read, and 10% found neither version of the text easier to read than the other (these final respondents had rated the readability of both texts as “average”).

Table 2

Frequency of Likert Scale Choices for Readability of English Text

Likert Scale	1	2	3	4	5	Likert Weighted Average
	Very Difficult	Difficult	Average	Easy	Very Easy	
Nonoptimized English n=20	0	6 (30%)	9 (45%)	5 (25%)	0	2.9
Optimized English n=20	0	1 (5%)	2 (10%)	12 (60%)	5 (25%)	4.0

Note. All 20 respondents rated both text types.

Discussion

The central purpose for the study was to gauge whether GES might allow government writers to produce text that linguistically-diverse audiences would find easier to read in English and more effective for translating using free online translation tools such as Google Translate. The study tested two hypotheses: (1) that English text that has been optimized using Kohl's (2008) guidelines produces better Spanish and Vietnamese translations from Google Translate than text that has not been optimized, and (2) that multilingual readers find English text easier to read when it has been optimized than when it has not been optimized.

The most notable result of the study confirmed the second hypothesis: The participants—highly-literate speakers of two notably different languages—were nearly unanimous in their perception that the optimized English text was easier to read than the nonoptimized English text. The results were consistent with an earlier study by McGinnis (2013) in which leaders from nearly 40 nonprofit organizations compared an optimized version and nonoptimized version of an English website text related to applying for a government grant. More than 90% of respondents in that study preferred the optimized version of the text (p. 17). The results of both studies take on greater meaning in light of the fact that both studies drew sample text from government websites. The data show that optimization made English text more readable. Furthermore, they suggest that optimization can make government writing more readable for people with a variety of backgrounds.

The other hypothesis of the current study—that optimization improves the quality of Vietnamese and Spanish translations produced by Google Translate—was supported in part. The data showed that Spanish-language readers perceived no difference in the quality of a nonoptimized Spanish translation and an optimized Spanish translation. They gave a median quality rating of 3.2 for both the optimized and nonoptimized translations. However, results for the Vietnamese-language readers indicated that text optimization improved translation quality. The median quality rating for the optimized

Vietnamese translation was nearly a full point higher than for the nonoptimized translation. Those results suggest that Vietnamese readers of the optimized translations found the translations comprehensible and less awkward than did their Vietnamese counterparts who reviewed the nonoptimized translation. To the extent that impenetrable English text or awkward machine-translated text cause readers to abandon a website, optimization offers hope that readers will remain engaged in a website and take advantage of opportunities to participate in government comment periods and other forms of participatory governance.

Due to the small sample size, the results of this study are only suggestive, but they support further testing. The survey was long and complex; yet, those participants who worked through the survey to the final screen skipped no questions. Such thorough responses suggest that participants were highly-motivated to participate and, consequently, gave well-considered answers.

The small sample size may have magnified the influence of participants' idiosyncrasies. For example, participants' may have had distinctly different standards for translation quality, and some may have had strong attitudes toward Google Translate or machine translation in general. Some participants may have had very little previous exposure to government website content, while other participants were government employees. Those idiosyncrasies would be expected to have a leveling effect on the results, which made the improvement in the quality rating of the Vietnamese translations more noteworthy.

A second limitation of the study was that the survey respondents did not represent the audiences that might benefit most if government agencies made their websites more readable for LEP individuals. The first author did not attempt to recruit LEP readers in this exploratory study because of the complexities of measuring participants' reading levels and the challenges of providing informed consent disclosures to LEP readers in languages other than English. In addition, the survey required participants to compare an English source text to a translation, so the design of this study required that participants be able to read both languages well. However, while the current study did not use LEP readers, it did move beyond the earlier studies by taking a step closer to the type of nonexpert, general audience that might visit a government website.

Other studies of GES (Kohl, 2008; Thicke, 2011) used professional translators and translation editors to evaluate optimized translations.

Conclusions

For government writers who wish to cast a broader net to draw in LEP readers, the two-fold opportunity that GES presents is valuable. That GES might improve the quality of some machine translations is important; that it may improve the readability of English that is not translated is crucial, precisely because human translation is so often not feasible. By conforming their web content to GES, government writers can improve the likelihood that LEP individuals who can read some English or who use Google Translate will understand and act on opportunities to get involved in public decisions that impact their lives. The results of the current study suggest that GES provides a means for keeping some LEP readers from falling through the cracks in government communication efforts whenever human translation is not a practical solution.

GES could be used routinely throughout an organization with little added expense other than the cost of a book and the labor costs associated with writers and editors familiarizing themselves with a new style. Applying the guidelines may require extra effort from writers since—as many writers and editors know—writing clearly and concisely requires more effort than writing less precisely. But the labor costs of spending time optimizing text might be offset by avoiding the costs of repeating a failed communication effort or responding to a flood of phone calls for clarification. A particular benefit of GES is that, because it is less costly than translation, it could be applied comprehensively to entire documents or websites, avoiding the piecemeal approach supported by DOJ's four factor test that authorizes agencies to translate only vital portions of vital documents (LEP.gov, "When Developing Plans and Guidance," para. 1). GES could relieve some LEP readers of the frustration of navigating a patchwork of incomplete information within the context of a website that may be, as a whole, written in an

English that is difficult for LEP readers to understand and clumsy to translate using free tools that these readers have access to.

An important next step would be to expand this study to involve a statistically significant sample of actual LEP readers. Doing so will present challenges. Recruiting a large number of bilingual readers would require substantial outreach conducted in non-English languages, requiring a linguistically-diverse research team. LEP readers might be reluctant to self-identify as having limited English proficiency if they are self-conscious about their English skills. For similar reasons, organizations that represent diverse communities might be reluctant to pinpoint their constituents who have limited proficiency. Recruiting online might be ineffective since LEP readers may not be frequent users of the Internet for socioeconomic reasons or for the simple reason that so much website content is in English. Evaluating the reading level of study participants to ensure that they meet a standard of limited English proficiency would be a monumental task that might present even greater barriers to study participation, since it would demand more time from participants, and perhaps amplify any feelings of insecurity they might have about their communication ability. And, all other things aside, the task of evaluating translation quality is not a simple one, and might deter many potential participants. Because it is the first of its kind, the current study was crafted more simply in order to facilitate the process of launching further study of the potential for GES to improve government communication—potential that this study has confirmed.

Testing the ability of government technical writers to apply GES guidelines would also be valuable. Kohl's (2008) book *The Global English style guide: Writing clear, translatable documentation for a global market* provides detailed information that, in some cases, may require significant familiarity with English grammar. It would be important to know the extent to which the average government writer could successfully apply Kohl's guidelines, and how long it might take such a writer to adapt to using GES. Gauging government writers' attitudes toward addressing LEP readers' needs and their motivation to implement GES would also be important. These are all necessary issues to explore

if government is to evaluate the costs and benefits of training writers in new techniques.

The results of this study present great promise that text optimization may help bridge the policy gaps between the parallel efforts set in motion by Executive Order No. 13166, the Open Government Directive, and the Plain Writing Act of 2010. Where the government website plainlanguage.gov focuses on general readability for English-language readers and overlooks LEP readers, the government website LEP.gov focuses heavily on the use of translation, which offers little help to LEP readers since, as scholars and public leaders have acknowledged, translation has limited feasibility for government agencies. GES, however, pushes beyond the Anglo-centric vision of the plain English movement and the narrow directives of the Plain Writing Act of 2010, and instead offers a tool that can help level the playing field for LEP readers of any government document on any day at little cost. GES demands more work from English-language writers than they may be accustomed to investing, but this extra effort represents a show of good faith to traditionally-marginalized language groups. Those groups, in turn, will bring their communicative resources to bear when reading GES-optimized English text or taking the extra step of using a tool like Google Translate. Consequently, GES presents an opportunity to improve the balance in public participation in an age when Internet outreach is increasingly important and government's ability to understand its multilingual audiences is lagging. ■

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Appendix A

English Source Text for Translations

Included below are the source texts used to produce the translations used in the surveys. All translations created by Google Translate for this study were produced within the same five-minute period. The nonoptimized source text has not been conformed to Global English Style. The optimized source text has been conformed to Global English Style.

Nonoptimized Source Text

(250 Words. Flesch-Kincaid Grade Level 13.8)

The City of Carlsburg has been tasked with updating its Comprehensive City Plan, a long-range, 20-year plan that sets the framework up for the physical development of the city. Carlsburg originally developed its Comprehensive Plan in 1970; periodic plan updates are mandated by the State Legislature. The Comprehensive Plan update will help implement the city's strategic plan for a prosperous, educated, healthy, equitable and resilient Carlsburg.

The city has appointed a committee chair, which will ensure opportunities will be provided for open, meaningful community participation in the Comprehensive Plan update process. The committee is responsible for prioritizing. They have also been tasked with defining criteria and principles for engaging Carlsburg residents in a public involvement process, identifying benchmarks and timelines to measure success, and serving as the eyes and ears of Carlsburg's many and diverse communities, ensuring that the perspectives of all Carlsburg residents are reflected in the updated plan.

Have your say by staying informed and getting involved. Read the draft Comprehensive Plan update, which describes proposed changes to land use, transportation, and infrastructure that will help us grow, create more jobs, close city service gaps, and help make Carlsburg a more livable city.

Participate by submitting your comments to plan@carlsburg.ci.us, or attending a workshop, open house or other event. The public comment period will be closing on March 1, 2015. Based on public input, changes will be made to the proposed plan. If you are unsure how to participate, we recommend you call the Mayor's Office at 345-789-1234.

Optimized Source Text

(232 Words. Flesch-Kincaid Grade Level 10.2)

The City of Carlsburg is updating its Comprehensive Plan. The Comprehensive Plan is a 20-year plan that guides decisions about how the city changes or grows.

Carlsburg originally developed its Comprehensive Plan in 1970. The State Legislature requires Carlsburg to update the plan periodically. The city will use the Comprehensive Plan to implement the city's strategic plan. The goal of the Comprehensive Plan is to make Carlsburg prosperous, educated, healthy, equitable, and resilient.

City officials appointed a committee chairperson, who ensures that opportunities exist for community members to help update the Comprehensive Plan. The committee will do the following:

- Prioritize tasks
- Identify ways to involve residents
- Identify benchmarks and timelines to measure success
- Monitor residents' concerns
- Ensure that the updated plan reflects all residents' opinions

Share your ideas. Stay informed and get involved. Read the draft update of the Comprehensive Plan, which proposes changes to land use, transportation and infrastructure. The plan will help the city grow, create more jobs, and close gaps in city services. It will help us make Carlsburg a better place to live.

Submit your comments to plan@carlsburg.ci.us, or attend a workshop, open house or other event. The public comment period will close on March 1, 2015. City planners will revise the proposed plan in response to public comments. If you are unsure about how to participate, we recommend that you call the Mayor's Office at 345-789-1234.

Appendix B

Nonoptimized and Optimized English Test Passages

Included below are the English texts used for comparison—in English—in the surveys. The texts were not translated. The nonoptimized source text has not been conformed to Global English Style. The optimized source text has been conformed to Global English Style.

Nonoptimized Test Passage

(130 Words. Flesch-Kincaid Grade Level 17.0)

The Bakery Rule is one of seven proposed government-mandated rules that will be finalized by the Food and Drug Administration (FDA) in 2015, which will implement the Food Safety Modernization Act. This will lead to creation of a prevention based, modern, bakery food safety system ensuring consumers are safe from foodborne illness. A supplemental rule (Dairy) was later proposed to make certain provisions, including milk quality standards and testing, more flexible reducing potential health impacts.

The FDA will consider comments from the public and other government agencies received during the comment period before drafting the final Environmental Impact Statement (EIS). The FDA will evaluate the potential alternatives the final EIS presents and the environmental impacts of each, which includes related socioeconomic and human health effects, before finalizing the food-safety rules.

Optimized Test Passage

(135 Words. Flesch-Kincaid Grade Level 11.8)

The Food and Drug Administration (FDA) has proposed the Bakery Rule, which modernizes the food-safety system for bakeries. The rule is among seven government-mandated rules that implement the Food Safety Modernization Act. The Bakery Rule focuses on prevention to protect consumers from foodborne illness. The FDA also has proposed the supplemental Dairy Rule. It reduces health risks by making the standards for milk quality and testing more flexible. The FDA will finalize the rules in 2015.

The FDA will consider comments from government agencies and the public before drafting the final Environmental Impact Statement (EIS). Comments must be received during the comment period to be considered. Before finalizing the food safety

rules, the FDA will evaluate the environmental impact of each alternative that appears in the EIS, including impacts on human health and the economy.

Appendix C

Survey Sample

All four surveys were conducted using Survey Monkey. The following is a sample of the survey used for the study. Actual source texts and translations were updated upon distribution of the surveys, and differ from the content below. The actual source texts are available in Appendices A and B.

Social Inclusion: Text Optimization for Government Organizations

Researcher: First Author, Masters Candidate, Institution Name

Research Advisor: Second Author, Associate Professor, Institution Name

This research has been reviewed by the UW-Stout IRB as required by the Code of Federal Regulations title 45 Part 46

Purpose

This survey explores methods for government agencies and nonprofit organizations to write websites and documents that are easier for global audiences to read. As a result of these methods, people who find it difficult to read English may have more opportunities to use public services and to give input on public policy decisions that affect their lives.

Length

The survey takes about 10 minutes to complete. The survey is hosted by Survey Monkey.

Thank-You Gift

All participants will receive a \$10 Amazon.com gift certificate by email as a thank you for participating in the survey. The survey will ask you to provide an email address where you would like to receive your gift certificate.

Survey Tasks

The survey asks you to evaluate the quality of a Spanish translation created by Google Translate. It also asks you to compare two versions of an English paragraph and rate how readable each version is. Tasks are described in more detail at the start of the survey.

Confidentiality

All survey data will be password-protected. The survey will ask you to provide an email address where you would like to receive a gift certificate for participating in the survey. I will not share your email address with anyone. I will delete the email address from my records before the survey data is compiled. At that point, your responses will not be connected to you in any way.

Benefits of Participating

Data from this survey may help improve government and nonprofit writing. As a result, people who find it difficult to read English may have more opportunities to use public services and to give input on new laws or policies.

Risks of Participating

The survey presents no more than minimal risks to participants. Some survey participants could feel uncomfortable if the translations are difficult to read. However, the survey does not measure reading ability. It measures translation quality. Some participants could feel uncomfortable providing an email address to receive a thank you gift. However, accepting the gift and providing an email address is optional.

Consent to Participate

Your participation in this survey is voluntary. If you choose to complete the survey, you consent to participate in this study called “Social Inclusion: Text Optimization for Government Organizations.” The study includes only this survey. Nothing else will be asked of you after the survey. You can withdraw from the study at any time before you finish the survey. However, you will not be able to withdraw your responses after you finish the survey, because I will not know which responses are yours.

IRB Approval

This study has been reviewed and approved by the Institution Name Institutional Review Board (IRB). The IRB has determined that this study meets the ethical obligations required by federal law and University policies. Please contact the Researcher or Advisor if you have questions or concerns about this study. Please contact the IRB Administrator if you have any questions, concerns or reports regarding your rights as a research subject.

Contact

Researcher: Name and contact information

Research Advisor: Name and contact information

IRB Administrator: Name and contact information

_____ [End of Screen] _____

HOW THE SURVEY WORKS

In this survey we will work with a passage of text that I translated from English to Spanish using Google Translate. (Google Translate is a free online translation tool.) During the survey, you will do the following:

1. Read the translated text with some words removed, and guess what the missing words are.
2. Read the full translated text (with no words removed) and answer questions about the text.
3. Compare the English text and the Spanish translation and answer one question about the quality of the translation.
4. Compare two versions of an English paragraph and decide which version is better.

5. Enter your email address if you wish to receive a \$5 Amazon.com gift certificate

_____ [End of Screen] _____

GUESS THE MISSING WORDS

Here is the translated text that we will use for this survey. I have removed words from the text. In place of each missing word, you will see a line with a number on it. After the text you will see a numbered list where you will type in the missing words. This survey does *not* test or measure your reading or writing ability. The survey measures the quality of the translation that Google Translate produces.

Please read the text and guess what words are missing. Write the missing words in the numbered list that follows the text. Please do not continue to the next screen of the survey until you have completed this task.

La Ciudad de Carlsburg está actualizando su Plan Integral, un plan de largo alcance de 20 años que 1 el marco para el desarrollo físico de la ciudad. Carlsburg originalmente desarrolló su Plan Integral en 1970; actualizaciones 2 del plan están obligados por la Legislatura del Estado. La actualización del Plan Integral ayudará a implementar el 3 estratégico de la ciudad para un educado, Carlsburg próspera, saludable, equitativa y resistente.

La ciudad ha nombrado un 4 para garantizar oportunidades abiertas y significativas para la participación comunitaria en la actualización del Plan Integral. El comité 5 responsable de la definición de criterios y principios para los residentes participar carlsburg en un proceso de participación 6, la identificación de puntos de referencia y plazos para medir el éxito, y que sirve como los “ojos 7 oídos” de muchas y diversas comunidades de carlsburg, asegurando que las perspectivas de todos Carlsburg residentes se reflejan 8 el plan actualizado.

Manténgase informado y participar. Leer el proyecto de propuesta para la actualización del Plan Integral, 9 incluye cambios en el uso del suelo, el transporte y la infraestructura que nos ayudará a crecer, crear 10 puestos de trabajo, cerrar las brechas en servicios de la ciudad, y ayudar a que Carlsburg una ciudad 11

habitable. El período de comentarios públicos está abierto actualmente. Envíe sus comentarios a carlsburgplan@carlsburg.ci.us. o asistir a un taller, 12 casa abierta o cualquier otro evento. Su regeneración se incluirá con el testimonio público sobre esta fase del 13 de planificación.

Please type the missing word that corresponds with each number in the text above. If you are unsure, just guess.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____

_____ [End of Screen] _____

ANSWER QUESTIONS ABOUT THE TRANSLATION CONTENT

Here is the same translated text with no words removed. (*Please do not return to the previous screen to change your responses.*)

Please read the text and answer the questions below it.

La Ciudad de Carlsburg está actualizando su Plan Integral, un plan de largo alcance de 20 años que establece el marco para el desarrollo físico de la ciudad. Carlsburg originalmente desarrollado su Plan Integral en 1970; actualizaciones periódicas del plan están obligados por la Legislatura del Estado. La actualización del Plan Integral ayudará a implementar el plan estratégico de la ciudad para un educado, Carlsburg próspera, saludable, equitativa y resistente.

La ciudad ha nombrado un comité para garantizar oportunidades abiertas y significativas para la participación comunitaria en la actualización del Plan Integral. El comité es responsable de la definición de criterios y principios para los residentes participar carlsburg en un proceso de participación pública, la identificación de puntos de referencia y plazos para medir el éxito, y que sirve como los “ojos y oídos” de muchas y diversas comunidades de carlsburg, asegurando que las perspectivas de todos Carlsburg residentes se reflejan en el plan actualizado.

Manténgase informado y participar. Leer el proyecto de propuesta para la actualización del Plan Integral, que incluye cambios en el uso del suelo, el transporte y la infraestructura que nos ayudará a crecer, crear más puestos de trabajo, cerrar las brechas en servicios de la ciudad, y ayudar a que Carlsburg una ciudad más habitable. El período de comentarios públicos está abierto actualmente. Envíe sus comentarios a carlsburgplan@carlsburg.ci.us. o asistir a un taller, una casa abierta o cualquier otro evento. Su regeneración se incluirá con el testimonio público sobre esta fase del proyecto de planificación.

Please enter your responses in English. (The researcher cannot read Spanish.)

1. What is this text about?
2. Who is the text intended for?
3. What does the text tell the reader to do?
4. How will the reader benefit if he or she does what the text suggests?

[End of Screen]

COMPARE THE ORIGINAL TEXT AND THE TRANSLATION

Here are the original English text and the Spanish translation. Please compare the English and the Spanish texts, and answer the question at the bottom of the screen.

Original English text:

The City of Carlsburg is updating its Comprehensive Plan, a long-range 20-year plan that sets the framework for the physical development of the city. Carlsburg originally developed its Comprehensive Plan in 1970; periodic updates of the plan are mandated by the State Legislature. The Comprehensive Plan update will help to implement the city's strategic plan for a prosperous, educated, healthy, equitable and resilient Carlsburg.

The city has appointed a committee to ensure open and meaningful opportunities for community participation in the Comprehensive Plan update. The committee is responsible for defining criteria and principles for engaging Carlsburg residents in a public involvement process, identifying benchmarks and timelines to measure success, and serving as the "eyes and ears" of Carlsburg's many and diverse communities, ensuring that the perspectives of all Carlsburg residents are reflected in the updated plan.

Stay informed and get involved. Read the proposed draft of the Comprehensive Plan update, which includes changes to land use, transportation and infrastructure that will help us grow, create more jobs, close gaps in city services, and help make Carlsburg a more livable city. The public comment period is currently open. Submit your comments to carlsburgplan@carlsburg.ci.us. or attend a workshop, open house or other event. Your feedback will be included with the public testimony on this phase of the planning project.

Translation:

La Ciudad de Carlsburg está actualizando su Plan Integral, un plan de largo alcance de 20 años que establece el marco para el desarrollo físico de la ciudad. Carlsburg originalmente desarrollado su Plan Integral en 1970; actualizaciones periódicas del plan están obligados por la Legislatura del Estado. La actualización del Plan Integral ayudará a implementar el plan estratégico de la ciudad para un educado, Carlsburg próspera, saludable, equitativa y resistente.

La ciudad ha nombrado un comité para garantizar oportunidades abiertas y significativas para la participación comunitaria en la actualización del Plan Integral. El comité es responsable de la definición de criterios y principios para los residentes participar carlsburg en un proceso de participación pública, la identificación de puntos de referencia y plazos para medir el éxito, y que sirve como los “ojos y oídos” de muchas y diversas comunidades de carlsburg, asegurando que las perspectivas de todos Carlsburg residentes se reflejan en el plan actualizado.

Manténgase informado y participar. Leer el proyecto de propuesta para la actualización del Plan Integral, que incluye cambios en el uso del suelo, el transporte y la infraestructura que nos ayudará a crecer, crear más puestos de trabajo, cerrar las brechas en servicios de la ciudad, y ayudar a que Carlsburg una ciudad más habitable. El período de comentarios públicos está abierto actualmente. Envíe sus comentarios a carlsburgplan@carlsburg.ci.us. o asistir a un taller, una casa abierta o cualquier otro evento. Su regeneración se incluirá con el testimonio público sobre esta fase del proyecto de planificación.

Please rate the overall quality of the translation. An excellent Spanish translation accurately conveys the *meaning* of the original English sentence, and does not sound wrong or awkward to you as a reader of Spanish. The translation is:

- Very Poor
- Below Average
- Average
- Above Average
- Very Good
- Not sure

[End of Screen]

RATE THE TRANSLATION ERRORS

Please compare the 10 English sentences and their Spanish translations. Rate the quality of the translation. An excellent Spanish translation accurately conveys the meaning of the original English sentence, and does not sound wrong or awkward to you as a reader of Spanish.

1. Sentence one:

Original: The City of Carlsburg is updating its Comprehensive Plan, a long-range 20-year plan that sets the framework for the physical development of the city.

Translation: La Ciudad de Carlsburg está actualizando su Plan Integral, un plan de largo alcance de 20 años que establece el marco para el desarrollo físico de la ciudad.

The translation is:

- Very Poor
- Below Average
- Average
- Above Average
- Very Good
- Not sure

_____ [End of Screen] _____

2. Sentence two:

Original: Carlsburg originally developed its Comprehensive Plan in 1970; periodic updates of the plan are mandated by the State Legislature.

Translation: Carlsburg originalmente desarrollado su Plan Integral en 1970; actualizaciones periódicas del plan están obligados por la Legislatura del Estado.

The translation is:

- Very Poor
- Below Average
- Average
- Above Average
- Very Good
- Not sure

_____ [End of Screen] _____

3. Sentence three:

Original: The Comprehensive Plan update will help to implement the city's strategic plan for a prosperous, educated, healthy, equitable and resilient Carlsburg.

Translation: La actualización del Plan Integral ayudará a implementar el plan estratégico de la ciudad para un educado, Carlsburg próspera, saludable, equitativa y resistente.

The translation is:

- Very Poor
- Below Average
- Average
- Above Average
- Very Good
- Not sure

_____ [End of Screen] _____

4. Sentence four:

Original: The city has appointed a committee to ensure open and meaningful opportunities for community participation in the Comprehensive Plan update.

Translation: La ciudad ha nombrado un comité para garantizar oportunidades abiertas y significativas para la participación comunitaria en la actualización del Plan Integral.

The translation is:

- Very Poor
- Below Average
- Average
- Above Average
- Very Good
- Not sure

_____ [End of Screen] _____

5. Sentence five:

Original: The committee is responsible for defining criteria and principles for engaging Carlsburg residents in a public involvement process, identifying benchmarks and timelines to measure success, and serving as the “eyes and ears” of Carlsburg’s many and diverse communities, ensuring that the perspectives of all Carlsburg residents are reflected in the updated plan.

Translation: El comité es responsable de la definición de criterios y principios para los residentes participar carlsburg en un proceso de participación pública, la

identificación de puntos de referencia y plazos para medir el éxito, y que sirve como los “ojos y oídos” de muchas y diversas comunidades de carlsburg, asegurando que las perspectivas de todos Carlsburg residentes se reflejan en el plan actualizado.

The translation is:

- Very Poor
- Below Average
- Average
- Above Average
- Very Good
- Not sure

[End of Screen]

6. Sentence six:

Original: Stay informed and get involved.

Translation: Manténgase informado y participar.

The translation is:

- Very Poor
- Below Average
- Average
- Above Average
- Very Good
- Not sure

_____ [End of Screen] _____

7. Sentence seven:

Original: Read the proposed draft of the Comprehensive Plan update, which includes changes to land use, transportation and infrastructure that will help us grow, create more jobs, close gaps in city **services**, and help make Carlsburg a more livable city.

Translation: Leer el proyecto de propuesta para la actualización del Plan Integral, que incluye cambios en el uso del suelo, el transporte y la infraestructura que nos ayudará a crecer, crear más puestos de trabajo, cerrar las brechas en servicios de la ciudad, y ayudar a que Carlsburg una ciudad más habitable.

The translation is:

- Very Poor
- Below Average
- Average
- Above Average
- Very Good
- Not sure

_____ [End of Screen] _____

8. Sentence eight:

Original: The public comment period is currently open.

Translation: El período de comentarios públicos está abierto actualmente.

The translation is:

- Very Poor

- Below Average
- Average
- Above Average
- Very Good
- Not sure

_____ [End of Screen] _____

9. Sentence nine:

Original: Submit your comments to carlsburgplan@carlsburg.ci.us. or attend a workshop, open house or other event.

Translation: Envíe sus comentarios a carlsburgplan@carlsburg.ci.us. o asistir a un taller, una casa abierta o cualquier otro evento.

The translation is:

- Very Poor
- Below Average
- Average
- Above Average
- Very Good
- Not sure

_____ [End of Screen] _____

10. Sentence ten:

Original: Your feedback will be included with the public testimony on this phase of the planning project.

Translation: Su regeneración se incluirá con el testimonio público sobre esta fase del proyecto de planificación.

The translation is:

- Very Poor
- Below Average
- Average
- Above Average
- Very Good
- Not sure

_____ [End of Screen] _____

This is your final task.

Here are two versions of the same English paragraph, written in slightly different ways. Please read the paragraphs and answer the questions below.

Version 1

The Bakery Rule is one of seven proposed government-mandated rules that will be finalized by the Food and Drug Administration (FDA) in 2015, which will implement the Food Safety Modernization Act. This will lead to creation of a prevention based, modern, bakery food safety system ensuring consumers are safe from foodborne illness. A supplemental rule (Dairy) was later proposed to make certain provisions, including milk quality standards and testing, more flexible reducing potential health impacts.

The FDA will consider comments from the public and other government agencies received during the comment period before drafting the final Environmental Impact Statement (EIS). The FDA will evaluate the potential alternatives the final EIS presents and the environmental impacts of each, which includes related socioeconomic and human health effects, before finalizing the food-safety rules.

Please rate how readable Version 1 is.

Version 1 is:

- Very difficult to read
- Difficult to read
- Average
- Easy to read
- Very easy to read

Version 2

The Food and Drug Administration (FDA) has proposed the Bakery Rule, which modernizes the food-safety system for bakeries. The rule is among seven government-mandated rules that implement the Food Safety Modernization Act. The Bakery Rule focuses on prevention to protect consumers from foodborne illness. The FDA also has proposed the supplemental Dairy Rule. It reduces health risks by making the standards for milk quality and testing more flexible. The FDA will finalize the rules in 2015.

The FDA will consider comments from government agencies and the public before drafting the final Environmental Impact Statement (EIS). Comments must be received during the comment period to be considered. Before finalizing the food safety rules, the FDA will evaluate the environmental impact of each alternative that appears in the EIS, including impacts on human health and the economy.

Please rate how readable Version 2 is.

Version 2 is:

- Very difficult to read
- Difficult to read
- Average
- Easy to read
- Very easy to read

Overall, which of the two versions is easiest to read? (Select one)

- Version 1 is easiest to read
- Version 2 is easiest to read
- Neither version is easier to read than the other version
- Not sure

_____ [End of Screen] _____

You are done! Thank you very much for participating in this survey!

If you would like to receive a \$10 Amazon.com gift certificate, please enter your email address.

I will delete your email address after I send your gift, and before I compile the survey results.

Thank you.

_____ [End of Survey] _____

About the authors

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