

Final Report - Guidelines Transcreation Project

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2015

Multilingual project to develop culturally-relevant and bilingual Recycling, Compost and Garbage guidelines for underserved communities in King and Snohomish Counties.



King County



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In 2014, Waste Management, King County and Snohomish County approved an RFP proposal from TDW+Co Advertising Group, LLC to produce culturally relevant recycling, compost, and garbage guidelines based on previously existing English guidelines. TDW+Co was commissioned to produce in-language guidelines for seven (7) different ethnic communities residing within Waste Management’s service area of King and Snohomish Counties, excluding the city of Seattle. The following report provides a summary of the goals, objectives, and process of execution. The report concludes with lessons learned and recommendations for future work based on community and cultural findings.

Goals

To develop Waste Management (WM) in-language Garbage, Recycling and Compost guidelines—copy, images and layout—that are appealing and culturally relevant to the specific communities that have the largest presence (in terms of population) in King and Snohomish Counties within the Waste Management service area.

Objectives: Development and Execution

Objective 1: Identify and target appropriate communities based on their presence (i.e. population) within the WM service area of King and Snohomish Counties

Waste Management identified seven ethnic communities, whose populations reside in the King and Snohomish Counties’ service areas, excluding the City of Seattle, as communities in need of in-language guidelines and communities that might best benefit from these efforts.

These ethnic communities were

- | | |
|----------------------------------|---------|
| Chinese (Mandarin and Cantonese) | Hindi |
| Vietnamese | Somali |
| Korean | Amharic |
| Russian | |

Objective 2: Utilize the transcreation process to prepare an in-language and in-culture version of the guidelines

Transcreation

Transcreation, for this project, is the multi-step process through which an 1) original English message (i.e. text, images, layout and design) that is intended for an English-speaking audience is 2) developed into a target language for a specific ethnic community, 3) then reviewed by that community, modified according to the feedback, 4) presented to members of the community for final review, and then 5) finalized into a new message. This new message is culturally appropriate and relevant, and correct in word choice and grammar. Ultimately, the purpose of transcreation is to ensure that this new message has a similar impact and influence in the target community as the original message had on the original, intended English-speaking community or audience.

A simplified model of transcreation is as follows

- | | |
|--------------------------|---------------------|
| 1) Research and Planning | 3) Modifications |
| 2) Usability Testing | 4) Community Review |

Preparations: Laying the foundation to success

Research and planning (R&P) is a critical step to ensuring the success and acceptance within the ethnic communities. In the case of this project, research and planning had two stages that occurred, for the most part, simultaneously: Guidelines R&P and Usability Testing R&P.

Guidelines R&P: This research is done prior, during and after the initial translation. It includes copy-editing and redesigning of the original source content (copy, images, and layout) of the guidelines, researching and evaluating word choice and identifying and evaluating culturally relevant images. The research helps make the subsequent translations culturally relevant to the different ethnic communities.

Usability Testing R&P: This essential step involves developing material and assets needed for recruiting participants, cultural/language experts, community-based organizations, moderators and note takers and so forth. This stage includes the development of letters to participants and moderator scripts.

Phases of execution

The overall project was segmented into three phases:

Phase 1: Chinese (CH), Korean (KO), and Vietnamese (VI)

Phase 2: Russian (RU) and Hindi (HI)

Phase 3: Amharic (AM) and Somali (SO)

Guideline R&P

A) Starting at the beginning: Revamping the English guidelines

WM provided TDW+Co with all files necessary to create new in-language versions of the current Recycling, Compost and Garbage guidelines. TDW+Co collaborated internally to create a new layout that would best present the images and copy adhering to best practices in creative design. This initial version has become the foundation of all the final in-language guidelines.

B) Incorporating culturally relevant images

Culturally relevant images were selected based on existing TDW+Co's knowledge and research on each ethnic community as well as recommendations from selected native speakers who live in the Greater Seattle Area because of their familiarity with both the local communities and their buying habits. These native speakers were instructed to review the original English guidelines and provide recommendations which included: deleting, altering, adding, and replacing images.

Upon receiving the recommendations, TDW+Co purchased the products and created, edited, and placed the images and text into the corresponding guideline and sub-category according to the recommendations.

Usability testing R&P

A) Developing the English participation letter and in-home exercise

TDW+Co composed the participation letter and developed an in-home exercise that would accompany the in-language guidelines. The letter provided the participants with a reminder of their appointment, the location of the appointment and contact information. The in-home exercise provided a way for the participants to record their interaction with the WM Garbage, Recycling and Compost guidelines over three (3) consecutive days. The exercise also served as a primer for the in-person usability test interview. The letter and exercise were developed and approved in August 2014.

B) Developing the English usability test script

TDW+Co developed the usability test script initially in English, and it was later transcreated. It contains standardized questions used to obtain qualitative data that could be analyzed across all languages. The analysis of this data informed the decisions that have altered the in-language guidelines. Development of the script began in August 2014 and was finalized and approved in mid-September 2014.

C) Recruiting participants

Recruiting participants was a critical factor in the success of the project. All participants who were qualified were invited to participate in the usability test. Each participant then opted to participate or not. In this sense, the selection was a self-selection.

Tactics depended largely on the language community. Retention and dropout rates varied among the language groups. For some language groups, recruiting was ongoing even after usability tests had started.

For all language groups, a recruitment flyer was developed in English which was subsequently transcreated and reformatted for every language. The flyers were distributed at various locations, including ethnic grocery stores, community-based organizations (CBOs) serving these ethnic communities.

For the recruitment during phases 2 and 3 (RU, Hi, AM, and SO), an FAQ sheet was developed; it described the project in further detail for CBOs desiring to help but needed more information.

Other recruiting tactics included emailing CBOs; contacting ethnic newspapers; cold-calling; obtaining referrals through LinkedIn, Facebook, and other social networks; visiting local churches; contacting taxi drivers; and leveraging TDW+Co's previous partner contacts as well as personal contacts of TDW+Co staff.

Firm appointments were set only after all the participation criteria were met. The participants were reminded of their appointments through the participation letter and a follow-up phone call or text message.

D) In-house and external language experts, translators, moderators and note takers

Depending on the language, expertise in language and culture for the seven language groups comprised of TDW+Co staff and external translators and community members. These language experts were utilized for several purposes, including research for copy and images, and cultural consultations. Whenever possible, these language experts also served as moderators or note takers for the usability tests in order to gain insights the translations.

Moderators and note takers were assigned their roles on the basis of their availability. Those with more flexible schedules were assigned the role of note taker. Ideally, the preference was to have one language/cultural expert who would be consistent throughout all the in-home sessions so as to glean the best learnings from these encounters.

E) Producing workable translations: Participation letter, in-home exercise and script

The in-home exercise and usability test script were translated and reviewed for all seven languages. All scripts and in-home exercises were reviewed and occasionally modified by the moderators and note takers as needed during their training sessions.

Translating the guidelines: Initial translation and transcreation, phase 1

The first translations were translated and reviewed by TDW+Co staff and external translators. The initial translation underwent multiple second reviews with the purpose of enhancing its cultural relevancy.

Transcreation phase II: Usability testing

Usability tests were conducted in a two-phase process over four days. First, four to six individuals from households within each language group were recruited to receive and utilize the in-language guidelines for three days while doing a simple three-day, in-home exercise. Then on the fourth day, the moderation team (a previously selected note taker and moderator, along with a TDW+Co member) interviewed one participant from the household about the Guidelines. Finally, after a participant completed both the in-home survey and the one-on-one interview, he or she was awarded a \$75-cash stipend.

Training the moderators and note takers

Moderators and note takers participated in a one-hour training session prior to any scheduled appointments.

During this session the moderators and note takers were informed on the purpose and nature of the transcreation project and of the debriefing requirement. They were also instructed on the best practices of focus group and interview facilitation, note taking, and note compilation for the purpose of analysis.

Finally, during the training session, the moderators and note takers were given the chance to review both the English and in-language script. During this time, moderators and note-takers read the script together making needed adjustments on the language script to improve understanding and flow.

Debrief

Within a few days of the final one-on-one interview (no later than one week), each note taker was debriefed by a TDW+Co team member on any immediate and overall impressions. These meetings lasted about an hour and information was gleaned about the guidelines (copy, images, and design), usage of the guidelines, and occasionally cultural insights, observations and interpretations were shared.

One week later, all notes were translated or transcribed into English and compiled into a spreadsheet template for further analysis.

Analysis

This stage of the project could only begin until after the note-compilation spreadsheet was completed and lasted several days. Analysis included reviewing the notes taken during the debrief meeting as well as a review of the notes made in the spreadsheet.

For more details of the analysis, please see in APPENDIX F: Summary of Findings from Usability Tests which contains a Summary of Findings for each language.

Transcreation phase III: Penultimate modifications

At this stage, the results were compiled into a set of actionable directives intended to optimize the effectiveness the guidelines (See Appendix D for sample of these directives). These directives then led to changes in copy, images and design and were informed by the analysis.

Occasionally, nearly all participants across all language groups agreed that certain images or copy needed to be deleted or altered. On other occasions, the incidence of agreement was related strictly to cultural or language community.

The types of modifications made included:

Copy

1. Deletion
2. Merging
3. Rewriting and retranslation

Images

1. Removing
2. Adding
3. Resizing
4. Regrouping

Design and Layout

1. No changes were made to the overall design across the three guidelines. Nearly all participants of all language groups were satisfied with the color scheme and organization of the information.
2. Text was eliminated to reduce clutter and expand the white space around images (for all languages).
3. Some color elements were added to both highlight and distinguish special tips or instructions from line items in each category (for all languages).

Final transcreation: Community review

The first-stage modifications were then presented to participants or community members who demonstrated an interest in reviewing the next evolution of the guidelines. The community members or “returning” participants were asked to provide any high-level feedback of the copy, images, and layout. This second round of feedback was received either via email or over the phone.

See APPENDIX B: Community Review: Post-usability Test Feedback for samples of community commentary.

Final modifications

Once we received the community feedback, we initiated our final stage of modifications which composed of a final review of the images and layout. Once modified, the guidelines were ready for back translation.

Back translation

The what and why of back translation

Back translation is a critical step to the transcreation process.

As implied by the name, back translation is a translation process, yet its principal purpose is quality assurance. Back translation is a final value-added step that raises the quality of the translation and requires collaboration between the TDW+Co team member, the original translator and a second translator (back translator). See APPENDIX C: Somali Back Translation Communications and for examples of this type of collaboration.

The process of back translation begins with the copy or text that has been translated and reviewed into a new target language; and then it is retranslated by a second in-house or independent translator from the target language back into its original source language; hence the name “back translation.”



Upon receiving the back translation, TDW+Co identifies differences between the original English guideline and the back translation guideline. During the analysis of the back translation the focus is in identifying any *omissions*, *additions*, or *alterations* to the *meaning* and *tone* of the source text. Therefore, the reviewer must be thoroughly familiar with the source copy and the indented *meaning* and *tone*; however, the reviewer is not necessarily concerned with differences in word choice as long as the same meaning and tone are conveyed. Back translation, therefore, allows the reviewer who is not a speaker of the target language to ask probing and insightful questions about possible differences. The ensuing collaboration allows the reviewer to assess and confirm the quality of the translation.

Another purpose for back translation is to identify culturally related idioms and key phrases as they are utilized in the target language communities.

Back translating the guidelines

During the back translation process, TDW+Co was able to identify and correct several issues that persisted through the transcreation process. Below are examples of a few translation errors that were discovered and corrected.

Mistranslation

- Cause: Ambiguous copy in the original English guidelines; the translator presumably chose the meaning that first came to mind.

Example

Translated as


Corrected to

- Label "Yard"

- “Place “yard” sticker” or
- “Use ‘yard’ label”

- Write “yard” on the container or bag

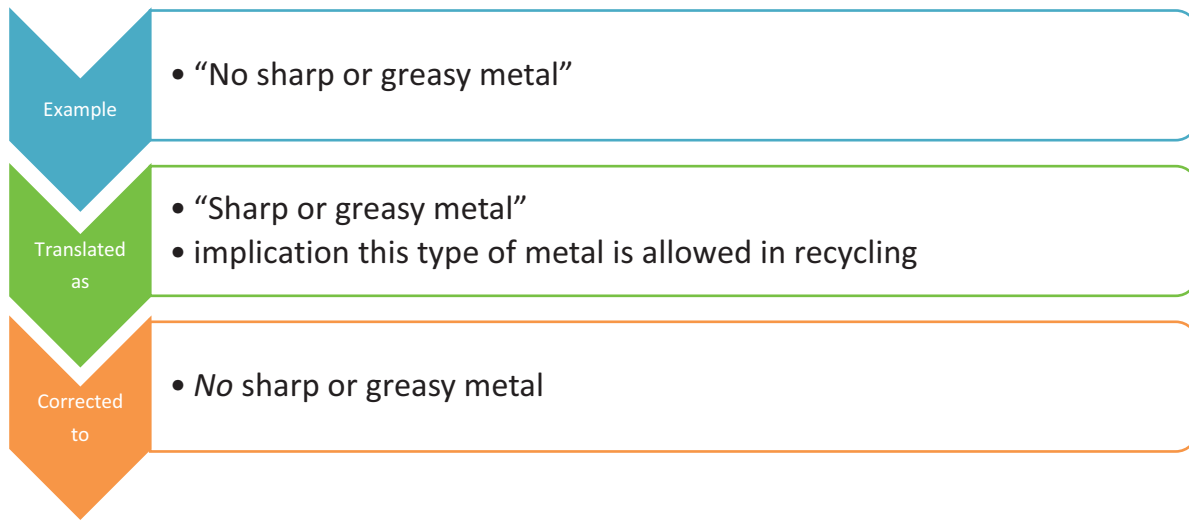
7



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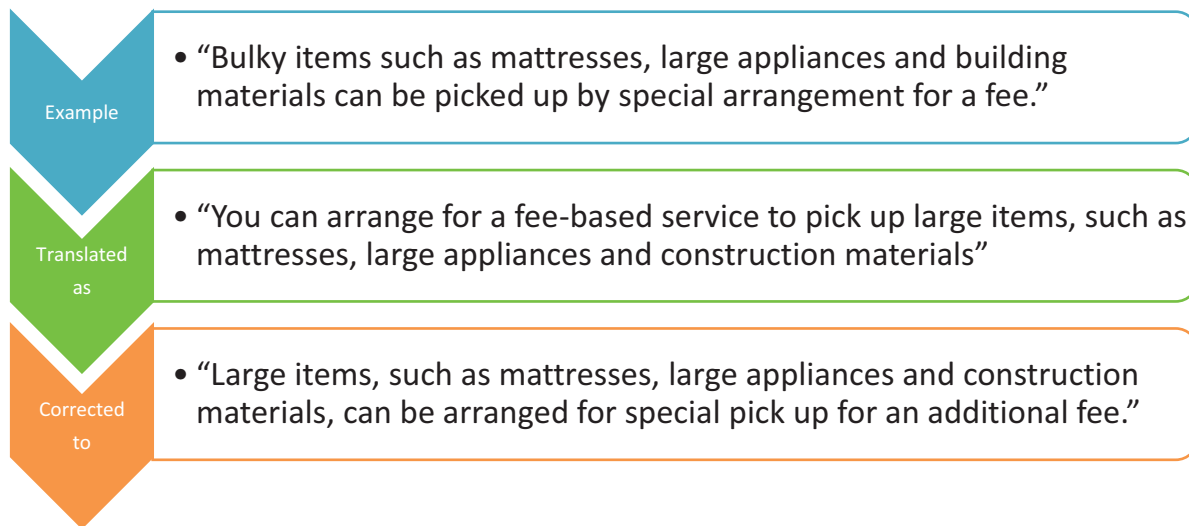
Omissions in meaning

- Manifestations: translator and reviewer failed to and key words



Alterations in meaning

- Translator altered meaning slightly, thereby ignoring the implied meaning that the consumer can contact WM for these services but implying that other non-WM service providers should be contacted.



For every target language, the corrected back translations were then incorporated into a new set of English guidelines. The seven English guidelines contain the same images and layout as that of their corresponding in-language guideline. That is, a person from any of the targeted language communities can now refer to guidelines that are culturally relevant—in regards to images and layout—in either English or their native language.

Putting It All Together

In all, the transcreation project for seven languages took about six months to complete and produced two sets of in-language guidelines, one for each county, for each language community as well as two sets of corresponding English back translated guidelines, one for each county; finally, we have also prepared two sets of the English original guidelines that reflect the changes in layout and design, but retain the original images and copy. This is a total of 90 individual documents produced.

Lessons Learned

Transcreation and Project Insights

1) In the future, time is of the essence when working with African language groups.

In order to ensure smooth and successful execution of project elements involving these groups, it is of utmost importance to begin the transcreation process and the recruiting of participants very early in the project timeline.

The following points are important considerations to take into account in planning and research stages:

- It is imperative to coordinate translators, cultural experts and community members in advance as these individuals are in high demand and replacements are difficult to find. As a result, training and appointment setting for the project can therefore be very tenuous.
- We found several workarounds to help mitigate these difficulties:
 1. From the external roster of translators, it is important to contact at least three (3) up to four (4) for each language group (African languages).
 2. Schedule all appointments at least 3 - 4 weeks in advance to ensure that the best and most reliable individuals are available and committed to the appointments.
 3. Stay in regular (weekly) contact with both language professionals and participants. This is especially important when changes or delays occur in the planning process.
 4. Strive to ensure that at least one (1) of these external professionals is the constant note taker throughout all the usability-test interviews. This action was done for other language groups.

2) To improve translations of all languages consider first improving the English source text by using a Global English Style Guide

Several preventable translation “errors” were discovered in the back translation process. These errors came about as a result of unclear or ambiguous meanings in the English copy. A Global English Style Guide enables writers to develop clearer content and avoid ambiguities that impede translation as well as eliminate unusual grammar constructions that are unfamiliar to non-native English speakers (even those who are fluent), eliminate unnecessary inconsistencies.

An excellent, easy-to-use resource is *The Global English Style Guide: Writing Clear, Translatable Documentation for a Global Market* by John R. Kohl (available at Amazon.com)

Other useful resources include *The Copyeditor's Handbook: A Guide for Book Publishing and Corporate Communications* by Amy Einshon and *The Chicago Manual of Style, 16th Edition* by University of Chicago Press (both available at Amazon.com).

- 3) **To improve future transcreation efficiency, consistency and coherence among all translated project assets (guidelines, participant letter, usability test script) consider leveraging this project and develop a list of key terms and a style guide for each language**

List of Key Terms

This project has developed useful content that has been vetted through the transcreation process, including through the processes of translation, community review, and back translation. An excellent way to leverage this content is to develop a list of key terms or glossaries. When using vetted content to develop a list of key terms, you can be assured that the terms are standardized and “approved;” in the case of English terms, they are the standard terms used across all public facing content and are approved by your organization, and in the case of the transcreated terms they become the standard for public-facing transcreations and are approved by the end users—the ethnic community that reviewed the guidelines.

Another reason for creating a standardized list of key terms is that such a list becomes a “cheat sheet” for future transcreation projects and results in greater consistency and overall efficiency in the transcreation process. It eliminates unnecessary decision making and research because translators will know upfront what terms to utilize in their work.

A list of key terms should be revisited regularly to add new, vetted terms or to ensure that all terms on the list remain current and understandable to the target ethnic communities. Translators should be able to have input on the list of key terms provided they are able to justify their concerns and their suggestions. Also these key terms should be vetted by community members of each language group.

Translation Style Guide

Because translation is likely to be done by different translators at any given time, a style guide is essential for unifying the translation voice. A style guide should be developed for each language; however, a simple first step would be to create a broad framework to help the translators understand the textual and visual presentation of your organization's content (i.e. capitalization, modes of measurement when metrics are involved, tone and style of languages). A style guide is also a way of delivering transcreation lessons learned and instructions to avoiding common errors when transcreating into certain target languages.

A simple example of a broad framework translation style guide can be found on WordPress.com <http://en.support.wordpress.com/translation-style-guide/>

An example of translation style guides maintained for multiple languages can be found at Microsoft.com (<http://www.microsoft.com/Language/en-US/StyleGuides.aspx>)

- 4) **To improve the overall transcreation process, consider adding a back translation step immediately after the initial translation, before the usability test**

In this project, the back translation was conducted after the usability test and community reviews. In this process it became readily apparent that several mistranslations were perpetuated throughout the entire transcreation process. These errors were not resolved with translator review and could not be done by the community review.

By implementing a back translation after the initial second reviews but before the usability test, it would ensure that the highest quality translation possible is presented before the participants; this will allow the participants to focus on the usability of the guidelines rather than the distractions within the copy. Additionally, by resolving ambiguities and mistranslations early, it will ensure more efficient work in the later stages of the transcreation process.

5) In the future, to capture more precise answers from the participants, consider carefully when and how to incorporate highly repetitive questions when developing the scripts for in-home interviews or focus groups

In the case of the usability test script for this project, the script was divided into several sections of questions: introductory, general, garbage, recycling, compost, and communication. The garbage, recycling and compost sections were directed at the guidelines and were further divided into three subsections: images, text, and usage.

The images, text and usage subsections guided the participants in the same set of exercises and questions for each guideline. For example, “Identify or describe the images in section X,” “look at the text in section Y, are there any words you do not recognize?” and “Would you keep this guidelines? Why or Why not? Where would you keep this guideline and for how long?”

In general, it seemed that the participants, moderators and note takers understood the rationale behind each section and subsection of questions and were willing to provide their insight. However, we noticed that both participant and moderators were less patient with the usage questions.

This lack of patience was manifested when participants would reply to these questions by saying “same as before” or when the moderators began skipping the questions because they felt the questions had already been answered in previous sections. This behavior leads us to conclude that the participants and moderators viewed these guidelines as one set of guidelines and not as separate sources of information; and participant might think, “if the guidelines are one source of information, why do I have to answer these questions three times?”

Usage questions asked in the in-home interviews:

- Would you keep this guideline? Why or why not?
- *[If yes above]* Where would you keep this guideline? And, how long would you keep it for?
- If you had a question about what you can or can't recycle/put in the garbage cart/ put in the compost cart, would you find this guideline helpful?
- What would you do if you have more questions that are not answered by this guideline?
- *If you have a question, would you call the number or go to the website on the guidelines? Which would you be more likely to do, call or go to the website?*
- Do you think this guideline would help you recycle/Compost better at home?
- Do you have any other suggestions for improving the guideline?

Therefore, to enhance the reliability of the answers and avoid trying the patience of the participants and moderators, we should consider grouping or organizing the usage questions differently in future opportunities.

A few suggestions to organize these types of questions in the future are to:

- a. Group all the repetitive questions into a new section and ask them once with follow-up questions.

The best time to ask these questions might be after all the guidelines have been reviewed with the moderator just before the final communication questions are asked. This way the participant has had the opportunity to consider all the information before answering.

These questions could be followed by questions that would help elicit more xx answers. For example, “Would you store the compost guideline in a different place than you would the garbage or the recycle guideline?”

- b. Another way to group these types of questions would be to create two groups of questions that could prompt
 - i. *repetitive answers* (“where would you keep these guidelines?”) or
 - ii. *unique answers* (Do you have any suggestions for improving the guideline?)

The questions that prompt repetitive answers could be asked before or after the section targeting the guidelines; whereas the questions that prompt unique answers could be asked at the end of each section targeting the individual guidelines. Grouping the questions in this manner might elicit more reliable answers because the timing and repetitiveness of the questions has been addressed.

6) When creating assets for the Hindi ethnic group, consider testing the preference for an in-language, culturally relevant option versus an English, culturally relevant option

While conducting the usability test with our Hindi-speaking participants, we learned several interesting facts about the transcreated copy.

- 1) Nearly, all of the participants agreed that the standard Hindi terms are not recognized by Hindi-speakers
- 2) Hindi-speakers involved, both participants and moderators and note takers tended to prefer transliterated words to standard Hindi terms in nearly half or more of the cases. Transliteration, in this case, is the spelling of English words using the Hindi script and is pronounced in nearly the same way.

Upon inquiring and through a bit of cursory research, we learned that India does not have a national language rather every state or province has its own official language; and as a country, India recognizes Hindi and English as the official languages of the government. Having Hindi and English as the official languages of the government means that a person travelling from one state to another can still conduct official government business in a language he or she may speak even if he or she

does not speak the prominent language of the state being visited. Additionally, though many Asian Indians may speak Hindi, it is usually a second or third language.

Thus, the consensus among the Hindi-speaking participants, moderator, and note taker was that if an Asian Indian is living in the United States and this person speaks Hindi, the chances are very high that this person also speaks English.

Nevertheless, the consensus was also that the images were culturally relevant and useful to the participants; the transcreation process takes into consideration culturally relevant images that will influence and drive the desired changes in behavior, i.e., better sorting of recycling, garbage and compost in the Hindi-speaking households.

Further research and understanding is necessary to understand best approach to take when considering the Asian Indian community. It would be necessary to test the Hindi language, culturally relevant guidelines against an English-language, culturally relevant guideline.

Recommendations

The following recommendations arise from direct requests or proposals made from community members of each community when asked what they thought would help encourage their communities to recycle. Furthermore, these recommendations also include our suggestions based on our overall understanding and analysis of the recycling needs of these communities.

- 1) Develop educational pilot programs that first focus on the basics of recycling. Per our analysis and interactions with these communities it was apparent that it is important to first build a good understanding base of the recycling process in King and Snohomish Counties. The pilot programs can encompass a variation of strategies. The following table provides strategies for each specific community to implement a pilot project based on our cultural knowledge, analysis and interactions with these communities during the project and the community members' feedback.

	In-school programs	Children-focused programs	Grassroots/Cultural events	Community Advocates	Incentives, give-a-ways	Media campaigns
Chinese	✓		✓	✓	✓	✓
Korean		✓	✓		✓	✓
Vietnamese			✓	✓		✓
Hindi	✓	✓	✓			✓
Russian	✓	✓	✓	✓	✓	✓
Somali			✓	✓		
Amharic			✓	✓		

- 2) Build a series of campaigns that focuses on concepts that these communities seemed to struggle with the most. The desired results of these campaigns would be to equip individuals in these ethnic communities with more and improved knowledge that can inform their decisions regarding recycling, compost and garbage. Themes, which are based the results of the projects and interactions with these communities, could include but not limited to:
- a. Recycle by shape: teach, educate and explain the significance of the recycling symbol with the objective of guiding people to focus on the shape of products rather than the recycling symbol or the number inside the symbol.
 - b. Uncoated paper: the many forms of paper and how to know what to compost, recycle, or throw away.
 - c. Hard to dispose materials: batteries and computers were two items that unanimously came up for all the seven communities.
 - d. Compostable vs. Plastic Bags: The question was asked during the usability tests about the difference between these two types of bags. Some participants were confused, others didn't know what a compostable bag was and others didn't even know that compost service existed.
 - e. How to save money by reducing garbage output and increasing recycling and compost
- 3) Launch a direct-mail campaign

All of the participants agreed that having the in-language guidelines in their homes would be a valuable tool because it would help them make better recycling, compost and garbage choices.

TDW+Co recognizes the difficulty in identifying households that need or want the in-language guidelines. For this reason our recommendation is to develop a one-page multi-lingual sheet and accompanying postcard to be mailed to the residents within the WM service areas in King and Snohomish Counties. The sheet would explain in two sentences that new in-language guidelines are available for recycling, garbage and compost and that these guidelines can be delivered to them if they would return the postcard with the appropriate box checked indicating which in-language document they desire.

During the final community review step of the transcreation process the past participants or community members expressed that these guidelines are tools that would undoubtedly educate and help these communities to better dispose of their waste into the three different types of services.

4) Launch a digital campaign

Several participants insisted that “publicizing everywhere” would not only raise awareness but encourage members of their ethnic communities to recycle more.

A digital campaign can be effective because it could be hyper-focused for one community or the other. This type of campaign can include in-language assets, like digital banners and social media posts that target users according to their ethnic backgrounds, language preference, location and etc.

This campaign would include a call to action that is in-culture and in-language or bilingual to a specific community. One possible useful call to action would be to request a set of in-language guidelines to be mailed to their home.

5) Outreach Pilot Program targeting the Amharic and the Somali communities living in Multi-family households

During this project we received feedback from the community members and participants that a large portion of the Amharic and Somali-speaking residents primarily live in a multi-family household. These communities also showed an educational need to understand recycling and compost greater than the rest of the communities included in this transcreation project. Because of these two reasons an educational outreach program is needed for residents of this community that live in this type of housing. By doing this program WM, King County and Snohomish County will have a higher understand on how to provide adequate education and improve the recycling behaviors of members of these growing communities. Finally, based on feedback from these communities, it was highly recommended to include community advocate and/or facilitators from the community to support.

6) Develop in-language guidelines for the Arabic-, Cambodian-, Japanese- and Tagalog-speaking communities in King and Snohomish Counties.

Upon finalizing the transcreation project, we further conducted some minor research to explore whether other ethnic communities in King and Snohomish Counties might be populous enough to justify producing more transcreated in-language guidelines for them. We turned to the U.S. Census Bureau 2009-2013 5-Year American Community Survey for this data.

We were able to extract comparison data from the American Community Survey regarding the language spoken at home and by the ability to speak English for the population 5 years and over in King County and Snohomish County (see APPENDIX H: Population by English-speaking ability, Snohomish County and APPENDIX I: Population by English-speaking ability, King County).

Based on these charts we suggest targeting the following communities, based on the population of individuals who speak English less than “very well”:

	King	Snohomish	Total individuals
Tagalog	7,211	3,242	10,453
Cambodian	4,894	1,310	6,204
Arabic	2,998	1,469	4,467
Japanese	4,176	588*	4,764

Figure 1 Population by language spoken who speak English less than “very well”
* not represented on the graph found in APPENDIX G

The U.S. Census provides a language mapper that can visually represent where these populations reside. The language mapper is a scalable map of the United States and utilizes a dot to represent clusters of 10 individuals by their language spoken at home and their ability to

speak English. This tool would be a useful reference for further determining if these populations do in fact live in King County but outside of the City of Seattle.

The language mapper can be found at

https://www.census.gov/hhes/socdemo/language/data/language_map.html

Appendix

APPENDIX A: Demographic Summary of Participants

Summary of Participant demographics

Language Community	No. of Participants	Male	Female	Youngest	Oldest	Highest Education	Lowest Education	Recycle at home
Chinese	6	1	5	25	61	College	Elementary	Yes-All
Korean	6	1	4	32	61	College	High School	Yes-All
Vietnamese	6	4	2	23	58	College	High school	Yes-All
Hindi	4	3	1	30	70	PhD	BA/BS	Yes-All
Russian	4	2	2	20	48	Master's	High School	Yes-All
Amharic	4	2	2	28	48	College	unknown	Yes-All
Somali	5	0	5	29	34	College	College	Yes-All

APPENDIX B: Community Review: Post-usability Test Feedback

Sample of first-round modifications of guidelines for phase 1: Chinese, Korean, and Vietnamese

Ethnicity	Text			Image			Design		
	Garbage	Recycle	Compost	Garbage	Recycle	Compost	Garbage	Recycle	Compost
Vietnamese	After reading these guidelines, I am still not sure how to dispose used cooking oil and used batteries. They are listed as excluded from all categories, so there should be additional guidelines for these hazardous wastes.			The new guidelines look mostly the same; however, some of the photos have been changed to communicate the meaning better			I like the tip lines added at the bottom of each section.		
Korean	On the garbage page in the top left box, it says you can't recycle foil but on the recycle page it says you can			Pictures are good. No need to change			Prefer this layout. Much clearer		
Korean	A few words are repeated and hard to understand because it is not the standard or popular Korean word. A few words spacing is the guideline is wrong and some sentences are grammatically wrong.			Pictures are also easy to recognize what they are.			Compared with the old guideline, the new one has better distinction between the guidelines because the colors.		
Chinese	No feedback. Looks good overall			No feedback. Looks good overall			No feedback. Looks good overall		
Chinese	Only need to change 1 letter.			No feedback. Looks good overall			No feedback. Looks good overall		
Somali	I looked at each of the guidelines, amazing job redoing it! I like the flow of the text, it's less text and more pictures. They make a lot more sense now that you have incorporated all the suggestions from the focus participants. I look forward to the finish product.								
Russian	These look pretty good to me.			These look pretty good to me.			These look pretty good to me.		
Hindi	It seems everything fine to me. No spelling mistakes.			It seems everything fine to me.... look wise more modified and prominent.			It seems everything fine to me.... look wise more modified and prominent.		

APPENDIX C: Somali Back Translation Communications

Sample exchanges during back translation process

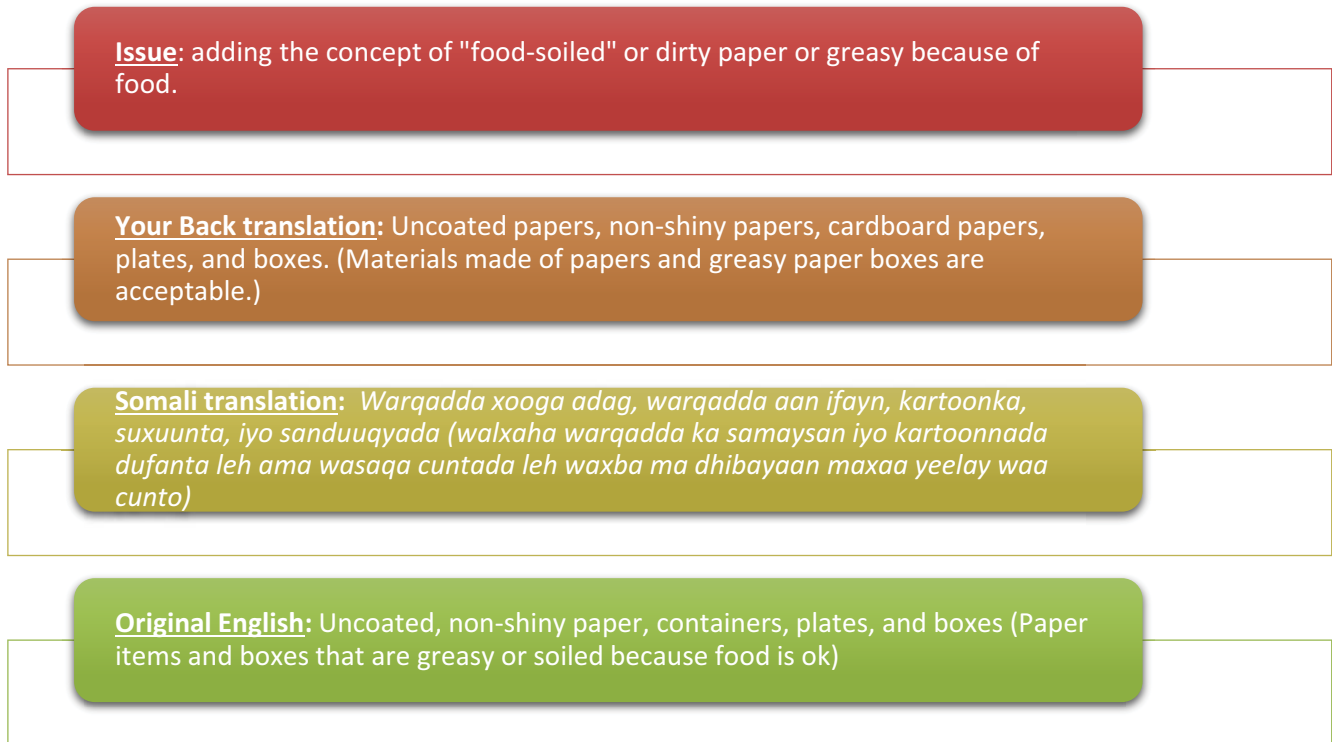
Example 1: Somali: Query about compost guideline

This question was sent to the external Somali translator that performed the back translation. The Somali back translator's response is included here.



Example 2: Somali: Query about the compost guideline

This question was sent to the external Somali translator that performed the back translation. The Somali back translator replied by providing his responses or corrections inline in his return email.



Q) Did the "food-soiled" concept get translated into Somali? It is missing from your English Translation. Please verify? If not, please provide an acceptable translation. Keep in mind that the sentence is already very long. We must make sure that the text can fit in the limited space provided.

A) sameysan, saxuunta, iyo sanaadiiqda (walxaha warqadaha ka sameysan iyo kartoonada dufanka ama saliida leh waa okey waayo waa cunto)

Example 3: Confirmation from original Somali Translator in regards to the back translator's edits.

The external Somali translator provided this response when he was asked to verify and confirm the back translator's suggestions.

I read the email with the questions/answers/comments/suggestions made. I don't have a problem replacing the suggestions he raised. I believe his suggestions enhance the text.

APPENDIX D: Russian Back Translation Communications

Exchanges during the process of back translation; the external Russian translator is responding to issues that were raised by an analysis of the back translation. These questions were emailed to the external Russian translator after the back translation was completed and analyzed. The external Russian translator provided corrections in a spreadsheet but provided her commentary in an email.

Example 1: Russian: Query about the compost guideline

Issue: The Original English says "Label Yard" but the original message is intended to be "write the word Yard on the container or bag". However according to the Russian back translation, the meaning was translated as "attach "yard" sticker".

Q) Would it be possible to provide a correction on this phrase?

A) The correction has been introduced [to the spreadsheet]. The verb "label" can mean "attach a label (sticker)" or "write, mark." Sometimes it is hard to note the difference without the context, hence the "attach the sticker" translation.

Example 2: Russian, Recycling, Recycling Tips

In this example, the external Russian translator chooses not to make a correction for this issue.

Issue: The original English "Ignore the Recycling Codes, Just recycle plastics by their shape" The back translation is PAY NO ATTENTION TO PROCESSING CODES. Sort Plastic Items...."

Q) Same types of question: does Processing codes convey the idea that they are codes for recycling? Will this confuse them? Is there a way to get the idea that they are processing(?) codes for recycling/identifying plastic types

A) No correction. See http://en.wikipedia.org/wiki/Recycling_codes. "Переработка отходов " in this context is "recycling," and not "processing." Actually, the word "processing" is closer to the Russian word "обработка," whereas "reprocessing" will actually mean "переработка".

Example 3: Russian, All Guidelines, Cart

Issue: The word Cart: as in Recycling Cart, Garbage Cart, or Compost Cart. Our client was very specific in choosing the word "Cart." This is a waste container on two wheels. They chose it to distinguish it from the indoor or outdoor garbage can that can be purchased at Walmart.

Q) Is there a word in Russian that can convey the meaning? Keep in mind that Cart is an unusual word to the general population, even to individuals who recycle often.

A) In Russia there are carts on two wheels that are referred to as containers. If you translate the word "cart," you would get something equivalent to a shopping cart ("тележка"), and no one refers to waste bins as carts. I did find some references to "two-wheeled containers" on Russian websites. Here's what I suggest: how about I say "two-wheeled container" for translation on top of each brochure, and throughout the text refer to it as "container." That way you get that idea that it has two wheels. I think it is enough to mention it once, and then to have just "container," to save space, and also to not make it sound too awkward. I made appropriate changes.

APPENDIX E: Post-usability Test Modifications

Example 1: Excerpts of design directives for Chinese, Korean, and Vietnamese with some instructions for all languages

Text			
All Languages	Compost	Recycling	Garbage
	<ul style="list-style-type: none"> Alleviate confusion of Instructions vs. Item Changing font changing color Using parenthesis Move the Yellow Bar “No Plastic....” Above the “FoodCycler” box. Find a better color that won’t get skipped over. 	<ul style="list-style-type: none"> Move the “Ignore the Numbers....” to the Recycling Tips Section at the bottom 	<ul style="list-style-type: none"> Shredded Paper: Add “Tip: can be placed loose in compost cart.” Add word “Tip” to Light bulbs: before “Fluorescent light Bulbs...” Group all “Styrofoam” products and say “Foam-based products”
All Languages	<ul style="list-style-type: none"> In the “Be a Foodcycler” Section: the word “Kraft” has been changed it to “yard and leaf bag” 	<ul style="list-style-type: none"> In the Recylcing Guidelines the Word Curb has been chanved to “on the Street next to your recyling cart.” The word “pill bottle” has been changed to “Over-the-Counter Pill bottle” 	<ul style="list-style-type: none"> English Copy for “Dirty Paper Plates” should change to “Dirty, coated paper Plates”
Images			
Korean	Compost	Recycling	Garbage
	<ul style="list-style-type: none"> Delete the Image of Nuts Add the image of the Rice Cooker (if there is space) 	<ul style="list-style-type: none"> Remove image of Dex Yellow Pages Delete Oikos Yogurt and replace w/Yoplait yogurt cup Replace Red Flower Pot w/Green Flower pot (take image from slight birds Eye view to see into the pot) Add image of the Glass Coca-cola bottle (see Russian guideline) Remove image of Ball of Foil 	<ul style="list-style-type: none"> Add w/ Doritos, Cheetos packaging to the Korean snack packing
All Languages	<ul style="list-style-type: none"> Delete Grocery Bag w/ groceries. Replace w/Empty Paper bag Replace Napkin for a more recognizable image of Napkins. If no suitable image can be created, delete the image. 	<ul style="list-style-type: none"> Remove image of Ice cream carton replace w/rounded ice cream tub Starbucks cup: Replace image with another Starbucks cup that shows part of the Logo. Delete the image of the Light bulb casing/scrap metal and Replace w/a silver-colored door hinge or other more recognizable scrap metal image. 	<ul style="list-style-type: none"> Delete image of “Disposable Wipe” Replace with a more recognizable image of wipes. Replace the dirty paper plate with a Chinnet-brand shiny plate that has a design and that is dirty. Replace the “Styrofoam” Peanuts with the “Styrofoam” blocks Delete Blister Packaging

Example 2: Excerpts from design directives for Amharic, Hindi, Russian, Somali

Delete Images					Add Images					Alterations to images				
GARBAGE														
Books Shredded Paper Dirty paper plate Blister Packaging	SO	RU	HI	AH	Hard cover book - red Toys Colorful paper plate - dirty Disposable wipe coming out of jar	SO	RU	HI	AH	Lids and caps Coals next to ashes, (Slightly overlapping?)	SO	RU	HI	AH
	X	X	X	X		X	X	X	X			Enlarge image		Enlarge image
		X		X		X	X	X	X					
	X	X	X	X		X	X	X	X					
	X	X	X	X		X	X	X	X		X			
COMPOST														
Cheese (White, middle of page, next to lettuce) Eggplant steak/pork chop Injera bread	X				Spaghetti Pasta Chicken Drumstick Chocolate chip cookie Hamburger (meat w/bun (no bacon))	X		X		Darken the Paper Napkins				
			X	X	X									
				X	X	X	X	X	X		X	X	X	X
				X	X			X						
RECYCLING														
Starbucks paper cup- no logo Red "Nanak" box Pill Bottle - no logo	X		X	X	Starbucks cup w/logo Vimto Plastic Bottle drink Pill Bottle w/Advil Logo	X		X	X	Separate mail & Junk Mail Darken the image of the glass jar	X			X
			X		X							X		
				X	X	X	X	X	X					

APPENDIX F: Summary of Findings from Usability Tests

Phase 1: Chinese, Korean and Vietnamese

Chinese

Executive Summary:

- Participants order of preference/attraction: Color, IMAGES, headline, words
- Simplify. Simplify. Simplify. More images and fewer words. The strongest recommendation was to eliminate text and add more relevant and telling images.
- Participants felt confused about the special instructions that followed the certain items. The font size made the tips or instructions indistinguishable from the items.
- Participants liked the recycle icon and would like an icon for the other guidelines.
- Participants equated the top of the page as most important and information found at the bottom of page is considered less important or the “last” step of an ordered sequence. Thus frequently asked questions are left unanswered because tips at the bottom of the page arise are less likely to be read as a result.

Recommendations

Layout & Design:

- The participants appreciated the recycling icon in the headline. Icons similar to the Recycling icon, for Garbage and Compost were added in order to comply with both the request for images as well as to ensure the documents have consistency across all three headlines.
- Though most participants felt that important information should be at the top of the page, most over looked section was the yellow bar of “Don’ts” just below the headline. The yellow instruction bar was moved to just above the “Compost Guidelines.”
- The instructions at the bottom of the page are important, but they should remain at the bottom of the page, since the images and listed items take preeminence as the purpose of the guidelines is to provide this information.
- The phrase “Ignore the numbers, recycle by shape” raised more questions and caused confusion: None of the participants were aware of the number symbols on the plastic. This phrase was moved to the bottom of the recycling tips and the phrase was changed to: Ignore the recycling codes, just recycle plastics by their shape.

Images:

- Images were eliminated or replaced from the guidelines based on how well recognizable the original images were to the participants.
- Images were added based on how often the participants suggested these additions.
- Example of images deleted or replaced:
 - Garbage: Disposable wipe, broken scissors, packing peanuts, and blister packaging, chopsticks, dirty paper plate
 - Compost: Napkins
 - Recycling: Toaster, ice cream carton, Starbucks cup, scrap metal casing
- Example of images added:
 - Garbage: Styrofoam blocks, coals w/ashes, a coated paper plate that is dirty
 - Compost: Chicken leg, sliced bread/toast

- Recycling: Over-the-counter pill bottle

Copy:

- All participants agreed that the text on the page even though it was neatly aligned still seemed too cluttered.
- Additionally, some participants seemed to struggle with the Chinese characters which the note takers and moderators attributed to two possible reasons:
 - Chinese characters are more easily forgotten the longer one is not immersed in the Chinese language whether for reasons either of acculturation the dominant English language and society or of aging.
 - Chinese speakers regardless of the dialect share a similar writing style (grammar and syntax), however they may use separate scripts – traditional vs. simplified. The Guidelines were presented in the traditional Chinese script.
- Text was eliminated if
 - The majority of participants were able to identify the corresponding image.
 - The terms could be grouped into one generalized category and still be represented by their corresponding images.
- Text was retained or rewrote if
 - The terms were too unique to categorize.
 - The terms clarify or prevent confusion that happens when images are insufficient explanations.
 - The phrases were necessary instructions that could not be relayed through an image.
- The phrase “Ignore the numbers, recycle by shape” was moved to the recycling tips section. It is the last bullet in the section.

Korean

Executive Summary:

- Like Chinese participants, Korean participants preferred images to text; their message to us: Simplify. Simplify. Simplify. More images and fewer words.
- Participants were influenced by color choice in both the overall look and individual words and phrases.
- Participants were drawn more to the brightly colored Recycling & Compost guidelines than to the Garbage guideline.
- Participants felt confused about the special instructions that followed the certain items. The font color and size made the tips or instructions difficult to read.
- Participants preferred that important information such as warnings be at the top of the page. Thus frequently asked questions are left unanswered because tips are at the bottom of the page and are less likely to be read as a result.
- Participants, note taker, and moderators identified errors in translation.
- The phrase “Ignore the numbers, recycle by shape” raised more questions and caused confusion: None of the participants were aware of the number symbols on the plastic. This phrase was moved to the bottom of the recycling tips section and changed to: Ignore the recycling codes, just recycle plastics by their shape.

Recommendations

Layout & Design:

- The participants appreciated the recycling icon in the headline; corresponding icons were added, similar to the recycling icon, for the Garbage and the Compost guidelines in order to comply with both the request for images as well as to ensure the documents have consistency across all three headlines.
- Though most participants felt that important information should be at the top of the page, they ALL overlooked the Yellow bar of “Don’ts” just below the headline. The yellow instruction bar was moved to just above the “Compost Guidelines.”
- The instructions at the bottom of the page are important however, they should remain at the bottom of the page, since the images and listed items take preeminence as the purpose of the guidelines is to provide this information.

Images:

- Images were eliminated or replaced from the guidelines based on how well recognizable the original images were to the participants.
- Images were added based on how often the participants suggested these additions.
- Example of images deleted or replaced:
 - Garbage: Hardcover books, disposable wipe, broken scissors, packing peanuts, and blister packaging, dirty paper plate, Doritos bag
 - Compost: Nuts, napkins, grocery bag with food
 - Recycling: Toaster, ice cream carton, Starbucks cup, scrap metal casing, Dex Yellow Pages, Oikos yogurt cup
- Example of images added:
 - Garbage: Hardcover book, Styrofoam blocks, coals w/ashes, a coated paper plate that is dirty
 - Compost: Empty paper sack
 - Recycling: Yoplait yogurt cup, glass Coca-Cola bottle

Copy:

- All participants agreed that the text on the page even though it was neatly aligned still seemed too cluttered.
- Text was eliminated if
 - The majority of participants were able to identify the corresponding image.
 - The terms could be grouped into one generalized category and still be represented by their corresponding images.
- Text was retained or rewrote if
 - The terms were too unique to categorize.
 - The terms clarify or prevent confusion that ensues when images are insufficient explanations.
 - The phrases were necessary instructions that could not be relayed through an image.
 - Translation and spelling errors were corrected. Noteworthy examples are:
 - “Left-overs” which can be translated using two words: 남은 음식 (leftovers meant to be eaten again) and 음식 찌꺼기 (food waste). “Food waste” was chosen in order to convey the best meaning in the guideline.

- “Aerosol cans” which was originally transliterated and difficult to understand, upon the advice of the participants and note taker, the English word was included in the translation: 에어졸 캔 "Aerosol Cans"을 비웁니다.
- The phrase “Ignore the numbers, recycle by shape” was moved to the recycling tips section. It is the last bullet in the section.

Vietnamese

Executive Summary:

- Like the Chinese and Korean participants, the Vietnamese participants preferred images to text: More images and fewer words.
- Like the other participants, color and images drew attention first and last of all was text.
- Participants noted that the Recycle guideline has an icon and the other guidelines do not.
- Participants preferred that information and images be rearranged in the order of most surprising or new information to least surprising or well-known information.
- Frequently asked questions are left unanswered because tips at the bottom of the page arise are less likely to be read.
- The note taker and moderator noted that, demographically, the participants ranged from recently arrived from Vietnam to living in the U.S. since the Vietnam War., thus opinions on vocabulary probably varied based on how long they have been away from Vietnam.
- The phrase “Ignore the numbers, recycle by shape” raised more questions and caused confusion: Only one of the participants was aware of the number symbols on plastic products. This phrase was moved to the bottom of the recycling tips section and changed to: Ignore the recycling codes, just recycle plastics by their shape.

Recommendations

Layout & Design:

- Corresponding icons were added, similar to the Recycling icon, for the Garbage and the Compost guidelines in order to comply with both the request for images as well as to ensure the documents have consistency across all three headlines and all three languages.
- For consistency across all languages, the yellow bar was moved to just above the composting tips.
- Rather than moving the tips to above the images, even though the instructions at the bottom of the page are important, they should remain at the bottom of the page, since the images and listed items take preeminence as the purpose of the guidelines is to provide this information.

Images:

- Images were eliminated or replaced from the guidelines based on how recognizable the original images were to the participants.
- Images were added based on how often the participants suggested these additions.
- Example of images deleted or replaced:
 - Garbage: disposable wipe, broken scissors, packing peanuts, blister packaging, dirty paper plate
 - Compost: Nuts, napkins, grocery bag with food
 - Recycling: Toaster, ice cream carton, Starbucks cup, scrap metal casing, Dex Yellow Pages, Oikos yogurt cup

- Example of images added:
 - Garbage: Styrofoam blocks, coals w/ashes, a coated paper plate that is dirty
 - Compost: Empty paper sack, garden plants
 - Recycling: (no additions)

Copy:

- All participants agreed that the text on the page even though it was neatly aligned still seemed too cluttered.
- Text was eliminated if
 - The majority of participants were able to identify the corresponding image.
 - The terms could be grouped into one generalized category and still be represented by their corresponding images.
- Text was retained or rewrote if
 - The terms were too unique to categorize.
 - The terms clarify or prevent confusion that ensues when images are insufficient explanations.
 - The phrases were necessary instructions that could not be relayed through an image.
 - Translation and spelling errors were corrected.
- The title to the Recycling guideline was rewritten to be consistent with other guidelines, specifically the morpheme “Rac” was moved to the front.
- The list in the yellow bar in the compost guideline was reordered. “Cooking oil, liquids and pet waste” were moved to the head of the sentence and the more obvious or well-known things “plastic, metal or glass” were left to the end of the sentence. This was applied to all languages.

Phase 2: Russian and Hindi

Russian

Executive Summary:

- All the participants appreciated the colorfulness of the guidelines, and were immediately drawn to the images.
- Several participants commented on the organization and the ease of access to the information. One participant commented, "It's separated by color and each section is very clear and logical"
- Participants all found the guidelines helpful, one commented, "Yes, they are very clear and make sense, very useful for someone who is new to this."

Recommendations

Layout & Design:

- Unlike other languages, the Russian participants did not provide specific commentary about the text cluttering the layout. However, several of the design and layout changes made to the Phase 1 guidelines were implemented, eliminating repetitive text, having consistency for all languages and to create more white space for larger images.
- The Compost yellow bar of "Don'ts" was moved just below the headline to just above the "Compost Guidelines."
- The phrase "Ignore the numbers, recycle by shape" raised more questions and caused confusion: None of the participants were aware of the number symbols on plastic products.

Images:

- In general, the Russian participants recognized the cultural images that were provided and did not provide other cultural suggestions. Thus, any significant changes to the images in the Russian guidelines were due to issues that all participants in all language groups faced when reviewing the guidelines (ex. scrap metal casing and blister packaging was not recognized by any person in any language group).
- Images were eliminated or replaced from the guidelines based on how recognizable the original images were to the participants.
- Images were added based on how often the participants suggested these additions.
- Example of images deleted or replaced:
 - Garbage: Disposable wipe, broken scissors, packing peanuts, and blister packaging, dirty paper plate, shredded paper
 - Compost: Napkins
 - Recycling: Toaster, ice cream carton, Starbucks cup, scrap metal casing
- Example of images added:
 - Garbage: Styrofoam blocks, coals w/ashes, a coated paper plate that is dirty
 - Compost: Chocolate chip cookie, tea bag
 - Recycling: Over-the-counter pill bottle, metal locks

Copy:

- When the English copy was translated into Russian, the text expanded about 40%. Two strategies were implemented: one during the initial translation phase and the second after the usability test. The first attempt was to ask our external translator to reevaluate her word choice to see if she could retain the meaning while finding more concise language. Our second attempt

was to eliminate repetitive words and phrases that could be represented by images and overall phrases.

- Text was eliminated if
 - The majority of participants were able to identify the corresponding image.
 - The terms could be grouped into one generalized category and still be represented by their corresponding images.
- Text was retained or rewrote if
 - The terms were too unique to categorize.
 - The terms clarify or prevent confusion that ensues when images are insufficient explanations.
 - The phrases were necessary instructions that could not be relayed through an image.
- The phrase “Ignore the numbers, recycle by shape” was moved to the recycling tips section. It is the last bullet in the section.

Hindi

Executive Summary:

- Half of the participants noticed the images first and the other half of the participants were drawn to the text.
- The participants appreciated the organization of each guideline, saying the guidelines “give information on what goes in what [cart] – garbage, recycling, and compost.”
- Many participants, note taker, and moderators identified errors in the translation; ultimately many of these errors were identified as special issues when using certain Hindi fonts.
- Participants suggested that enlarging the images and adding more pictures would enhance the guidelines.
- The phrase “Ignore the numbers, recycle by shape” raised more questions and caused confusion: Though, only one person understood that plastics should be recycled by shapes, all participants were aware of the number symbols on plastic products.

Recommendations

Layout & Design:

- The participants appreciated the recycling icon in the headline, corresponding icons were added, similar to the recycling icon, for the Garbage and the Compost guideline in order to comply with both the request for images as well as to ensure the documents have consistency across all three headlines.
- Though most participants felt that important information should be at the top of the page, they ALL over looked the yellow bar of “Don’ts” just below the headline. The yellow instruction bar was moved to just above the “Compost Guidelines.”
- Although the instructions at the bottom of the guideline are important, they should remain at the bottom of the guideline, since the images and listed items take preeminence as the purpose of the guidelines is to provide this information.

Images:

- Images were eliminated or replaced from the guidelines based on how recognizable the original images were to the participants.
- Images were added based on how often the participants suggested these additions.
- Example of images deleted or replaced:

- Garbage: Hardcover books, disposable wipe, broken scissors, packing peanuts, blister packaging, dirty paper plate, Doritos bag
- Compost: Nuts, napkins, grocery bag with food
- Recycling: Toaster, scrap metal casing
- Example of images added:
 - Garbage: Hardcover book, Styrofoam blocks, coals w/ashes, a coated paper plate that is dirty, diaper, shredded paper, toy, ceramic casserole dish
 - Compost: Empty paper sack, pomegranate, spaghetti, cookie, yellow lentils, toast, paper towel
 - Recycling: Glass Coca-Cola bottle, coconut oil, Perrier bottle, tin can (no label)

Copy:

- All participants agreed that the text on the page that though neatly aligned still seemed too cluttered.
- We eliminated text if
 - The majority of participants were able to identify the corresponding picture
 - The terms could be grouped into one generalized category and still be represented by their corresponding images.
- We retained or rewrote text if
 - The terms were too unique to categorize.
 - The terms clarify or prevent confusion that ensues when images are insufficient explanations.
 - The phrases were necessary instructions that could not be relayed through an image.
- The phrase “Ignore the numbers, recycle by shape” was moved to the recycling tips section. It is the last bullet in the section.
- A note about the Hindi language:
 - Hindi is one of the languages of the Indian government (English is another language of the government); neither of these languages is a national language. That is, for nearly the entire population, Hindi is a second or third language. Though in the Hindi language, standard Hindi words exist for words like “Anti-Freeze” or “Non-recyclable,” nearly all of our participants, moderators, and note takers agreed that the terminology is not recognizable by a great majority of people who speak Hindi. Rather, these individuals preferred the transliterated versions—English words that are spelled with Hindi letters. About half or more of the Hindi copy is transliterated English. Additionally, for Hindi it would be essential to have both the Hindi and culturally relevant English versions of the guidelines.

Phase 3: Somali and Amharic

Somali

Executive Summary:

- Similarly to previously executed usability tests, the Somali participants felt that the information was cluttered with too many words.
- The Somali participants offered many comments on the quality of initial base translation of the itemized lists, noting that the Somali language does not lend itself well to brief, curt phrases as English does.

- Like other participants from other language communities, the participants were confused by the “ignore the numbers” phrase.
- Simplify. Simplify. Simplify. More images and fewer words. The strongest recommendation was to eliminate text and add more culturally relevant and telling images.

Recommendations

Layout & Design:

- For all three guidelines, the participants were pleased overall with design, colors, and layout.
- The yellow instruction bar was moved from above the images to below the images because the participants did not notice this until the moderator pointed it out.
- No other changes to the overall layout and design were made.

Images:

- Images were eliminated or replaced from the guidelines based on how recognizable the original images were to the participants as well as for certain religious considerations.
- Images were added based on how often the participants suggested these additions. Some American brand name products were added because the participants suggested they would be recognized by nearly all Somali residents regardless of their American origins.
- Example of images deleted or replaced:
 - Garbage: Disposable wipe, broken scissors, packing peanuts, blister packaging, dirty paper plate, pet waste, broken wine glass
 - Compost: Napkins
 - Recycling: Toaster, ice cream carton, Starbucks cup, scrap metal casing
- Example of images added:
 - Garbage: Styrofoam blocks, coals w/ashes, diapers Capri Sun, Doritos bag
 - Compost: Hamburger, spaghetti noodles
 - Recycling: Over-the-counter pill bottle, diaper box, glass Vimto bottle, glass coconut oil jar

Copy:

- All participants agreed that the text on the page that though neatly aligned still seemed too cluttered.
- Text was eliminated if
 - The majority of participants were able to identify the corresponding picture.
 - The terms could be grouped into one generalized category and still be represented by their corresponding images.
- Text was retained or rewrote if
 - The terms were too unique to categorize.
 - The terms clarify or prevent confusion that ensues when images are insufficient explanations.
 - The phrases were necessary instructions that could not be relayed through an image.
- The phrase “Ignore the numbers, recycle by shape” was moved to the recycling tips section. It is the last bullet in the section.
- After the revisions were made to the copy, TDW+Co commissioned a new external Somali translator to retranslate the guidelines; this new version became the basis for the back translation (see the Appendix B for community feedback on the new translation)

Amharic

Executive Summary:

- Participants were surprised to learn about the need to separate garbage, compost and recycling. This was an “eye-opening” experience for some participants
 - The participants appreciated the knowledge that the guidelines in Amharic gave them, one participant commented, “I never knew these things.”
 - [I never composted], because I did not know the difference between garbage and compost until I saw these brochures
- The participants approved of the overall layout and design and were first drawn to the images.
- Two participants suggested that providing metric measurements alongside the Standard English measurements would be useful, since Ethiopia and other Amharic-speaking countries do not use the Standard English measurement.
- Participants initially did not seem to have an opinion as to whether there were too many words or whether the words were too cluttered; they seemed to be at ease with the content. (Note: Participants that did take part in the community review had a positive reaction to the changes implemented with the copy. See APPENDIX B: Community Review: Post-usability Test Feedback)
- Participants commented on some inconsistencies in terminology and the smallness of the font.
- The phrase “Ignore the numbers, recycle by shape” raised more questions and caused confusion: None of the participants were aware of the number symbols on plastic products.

Recommendations

Layout & Design:

- The participants appreciated the layout and organization of the information. No significant changes to the organization were made in any of the guidelines.
- We are unsure if the participants could have identified the “Don’ts” instructions (Yellow bar in the Compost guideline) because the moderator pointed it out as he was asking the question. Nevertheless we moved this yellow instruction bar to just above the “Compost Guidelines” as we have done with other in-language guidelines.

Images:

- Images were eliminated or replaced from the guidelines based on how recognizable the original images were to the participants.
- Images were added based on how often the participants suggested these additions. Some images were added in response to religious concerns the participants had.
- Example of images deleted or replaced:
 - Garbage: Hardcover books, disposable wipe, broken scissors, packing peanuts, blister packaging, dirty paper plate, cracker bag
 - Compost: Eggplant, pork chop, injera bread, napkins, grocery bag with food, shredded paper
 - Recycling: Toaster, ice cream carton, Starbucks cup, scrap metal casing, Dex Yellow Pages, green pot
- Example of images added:
 - Garbage: Hardcover book, Styrofoam blocks, coals w/ashes, a coated paper plate that is dirty, Dorito bag
 - Compost: Empty paper sack, hamburger, chocolate cookie, mixed beans and yellow lentils

- Recycling: Perrier bottle, orange juice container, red pot

Copy:

- The participants initially did not seem to have an opinion as to whether there were too many words or whether the words were too cluttered; they seemed to be at ease with the content. (Note: Participants that did take part in the community review had a positive reaction to the changes implemented with the copy)
- Text was eliminated if
 - The majority of participants were able to identify the corresponding picture.
 - The terms could be grouped into one generalized category and still be represented by their corresponding images.
- Text was retained or rewrote if
 - The terms were too unique to categorize.
 - The terms clarify or prevent confusion that ensues when images are insufficient explanations.
 - The phrases were necessary instructions that could not be relayed through an image.
- The phrase “Ignore the numbers, recycle by shape” was moved to the recycling tips section. It is the last bullet in the section.

APPENDIX G: Other Findings and Direct Quotes

This appendix will provide a summary of other findings including cultural nuances that may be relevant to delivering the in-language guidelines to their intended audience and direct quotes. These Other Findings are grouped according to the ethnic groups and are based on the responses offered by the participants to specific questions asked during the in-person interviews. When possible, behavioral themes and attitudes are highlighted; when not possible, no such themes are indicated.

Though it is our hope that these Other Findings might inform future engagement activities when approaching these ethnic groups about recycling, garbage, or compost; caution should be used when attempting to generalize these findings to the entire ethnic community at large. Additionally, we have tried to indicate how well a group relies on their social network for resolving recycling issues. However, many participants were bilingual and fluent in English. Though some groups did not seem to rely on a social network, we would add a caveat that mono-lingual, non-English speakers would more likely to rely on a social network than perhaps otherwise indicated.

Chinese

During the in-home interview, the participants were asked about the strategies they used in the past to resolve issues concerning recycling, garbage and compost. The Chinese participants were more likely to report that they use several methods to resolve these issues. The most common—and least surprising—method involved tapping into their social network. Nearly all the Chinese participants were likely to ask for help from their family members, friends, and neighbors. Furthermore, it seems that when their intimate relations could not help resolve the problems, the participants were willing to expand their inquiries to a secondary, less intimate network, such as landlords and school officials. These answers confirm to us the importance of the social network among the Chinese community. Nevertheless, one participant indicated that he used past city or county guidelines. One other indicated that he did not make a distinction and simply treated every item as garbage.

The participants were asked what they believed their problem-solving behavior would be now that they had the in-language guidelines. Several participants indicated that they would continue to use their social networks. A few participants strayed from the norm and responded that they might utilize the website or the internet to resolve these issues. While, others believed that the guidelines were sufficiently informative and that they would not have such deliberations and would not need to ask. However, at least two participants indicated that if they could not find the answers or believed that the answer was unknowable (and therefore not worth asking) they would simply “just put it in the trash.”

Finally, one participant reported that he or she would treat the guideline like a pop-quiz answer guide: “At first, I wouldn't look at the [guideline] but distribute trash based on my assumptions, and then I would look at the guide.”

When prompted to choose between utilizing the online website or the phone number the participants' responses and attitudes varied:

- “I will throw it away as trash for safety. I wouldn't really call or go on website to look for more information since I assume the information online is all on the guide. But if I have to choose I will go online” – Chinese participant, #1
- “I would try to work it out myself based on my feelings and comparing it to the items on the guide already” – Chinese participant, #3

- “I will go online and look for information, but my parents don't know English so they won't even call and just dump everything in trash, but if there is a Chinese phone customer service they will call.” –Chinese participant #4
- “I will treat it as trash and I won't call or go online to look for information, since it's a waste of my time [to inquire either on phone or online since those methods would not have different information than already found on the guideline]” (Clarification has been added to illuminate that the attitude is toward these methods of inquiry and not about recycling in general). –Chinese Participant, #5

Finally, when prompted, the Chinese participants provided suggestions on how to encourage the Chinese community to recycle more:

- “Try to encourage community that recycle and compostable is good for environment through radio or newspaper.”
- “Reduce the price of recycling and compostable will help.”
- “Have community event or fair regarding recycling and compostable.”
- “Drop the price on recycling and composting since it's still expensive.”
- “You need to teach people more about compostable items.”

Memorable Quotes:

Q: “Do you see instructions for what you can't put in the Recycling cart?”

“Yes, with this guide my parents and I will be more inclined to recycle according to this guide and the pictures; but we will probably not read the words and texts.” –Chinese Participant, #4

Korean

The Korean participants indicated that their problem-resolving strategies, prior to the in-home interview, included relying on their previously acquired knowledge (“learned from everywhere, including school”), WM websites, internet searches, and the city recycling centers. One participant said, “I don't put in more effort to find out more information. It is common sense.” This particular Asian-language ethnic group was less inclined to rely on family members or others in their social network to resolve issues concerning recycling, garbage or compost. Many of the participants recalled receiving previous versions of the guidelines, and if they retained the guidelines they were usually kept in the kitchen, on the refrigerator. The participants also reported to refer to the guidelines between 2–6 times a week.

Not all participants were certain they would keep the guidelines, however, those who would, would do so because of the helpfulness of the guideline and would help expand their memory.

If any questions or concerns arose about recycling, composting or handling garbage, all participants indicated that they would prefer access information online “because it is accessible anytime” and “more convenient.”

When asked how long they would retain the guidelines, the answers depended on the guidelines:

Garbage: Until the guidelines are worn out.

Recycling: Until they can remember the information without referring to the guideline, “Until I can remember it completely [without looking at it].”

Compost: Until they can remember the information without referring to the guideline. “Not too long. Once I remember them I won't keep them anymore”

We were unable to draw any conclusions about the preferred way the Korean participants would like to receive the in-language guidelines in the future. They would like to receive the guidelines by mail or online and might like a magnet format.

Some suggestions that the Korean participants made to encourage others to recycle more would be create a TV campaign and ensure that Korean community is aware of how to reduce the garbage cost by recycling more.

Memorable Quotes:

Q: What did you do with the guidelines when you received them [with the In-home Survey]?

“I read the guideline and attached it to the refrigerator. I thought it was a good idea and felt that I should support and follow the guidelines. I thought that we could reduce waste and help maintain a clean environment. I shared this information with my whole family, including my children. There is no reason not to follow these guidelines.” - Korean participant, C.C.

“I read the guideline thoroughly. I found out that there is much information that I didn't know before and also realized that I throw away garbage carelessly. I didn't have a chance to share this information with someone because there was nobody at home.” – Korean participant, E.S.C.

“I read the guideline and threw them away. I didn't have any special feeling toward it because I am already recycling.” – Korean participant, K.S.

“After reading the guideline, I felt it was a bit annoying, but described things that were necessary to do and that more people should participate. I am concerned about compost matter, which can make the house smell when keeping food waste in the house. I shared this information with my husband. Currently, I live in apartment and there is no place for composting.” – Korean participant, M.K.

Vietnamese

Vietnamese participants conveyed a sense of impatience in regards to recycling, garbage and composting. Participants disclosed that prior to receiving the in-language guidelines for the in-person interview, if a participant was in need of more information about whether an item was recyclable or compostable, a majority of the participants reported that they would not ask anyone but would simply throw the items away; while only two participants reported that, prior to receiving the in-language guidelines, they would have asked friends or coworkers before disposing of the item in the garbage. One participant said:

“We usually don't ask. If [we're] ever confused between recycle and trash for example, we just throw it in the trash.” – Vietnamese Participant #4

Spurring on this impatient behavior is the fact the only one of the six participants recalls ever receiving other recycling or composting guidelines (such as the ones produced by King County).

Additionally, for mainstream residents, accessing the internet may seem like a logical choice to remove oneself from these types of doubts; but, accessing the internet or using a phone number does not seem to be one of the immediate go-to behaviors of this ethnic community. When asked if they would prefer to use the phone or the website to get more information, most Vietnamese participants would rather ask relative, coworker, or close friend; or they would ask no one at all and just toss the items into the trash.

Note: Notably, when prompted further with other probing questions, several of the participants said they would use the website; however none of the participants said they would use the phone. In fact one participant said that “1-800 numbers take too long;” though one participant hypothesized, “I think the older people will use the phone while the younger will use the website.”

These behaviors and preferences demonstrate the importance of placing useful, relevant information, such as the in-language guidelines, in the hands of the Vietnamese community and spreading the word through their trusted social network.

Nearly all the participants agreed that the in-language guidelines were helpful in helping them make choices, and that they would keep the guidelines for as long as possible, ranging from “one month at least until we have it memorized” to “forever” (with more participants leaning towards “forever”). They would keep the guidelines in someplace visible in the kitchen such as a refrigerator door or next to the compost collection bin. They would keep these guidelines because “it is easy to forget” and “so that everybody in my family can understand it” or “I would hold onto the guideline, [because] it's helpful to make sure what you can recycle or not.”

Thus it seems that the Vietnamese would utilize the in-language guidelines as intended that is to clarify what they already know and inform them when they do not have an immediate answer. Furthermore, the responses from the Vietnamese participants also suggest that the Vietnamese community might benefit from a facilitator program that includes trusted members of their community to educate and inspire a change within the Vietnamese community.

None of the participants was able to clearly state the difference between compostable and plastic bags.

All of the Vietnamese participants stated they would prefer to receive the guidelines by mail and that they would prefer that the guidelines would be in a magnet format. All the participants would keep the guidelines on their refrigerator in the kitchen.

None of the participants were aware of the recycling codes.

Our and cultural experts who were acting as moderators and note takers, agreed that the image of the jack-o-lantern should not be placed in the compost guideline. When asked if it was because the Vietnamese do not play with their food, the cultural experts all agreed that Americans had a tendency to play with their food and that a pumpkin is only to be used as food.

Memorable Quotes

To find out if an item was recyclable, “I would look at the [Recycling] guidelines and compare [them to the item in question]; if it's not on there, [then] straight into the trash [it goes].” – Vietnamese Participant #1

If we need to get more information about an item, “[We] would just throw it in the trash unless it was something that we [regularly] had a large quantity of [it].” – Vietnamese Participant #2

Russian

The Russian participants seemed to be very practical when it came to getting information about garbage, recycling, or compost. When asking about their prior problem-solving habits when it came to recycling, garbage, or compost, two participants reported that they tended to get the information they needed by simply referring to the print-outs or booklets that they had previously received, while one other participant reported that reading the stickers found on the carts was his preferred method of problem solving. At no time did these Russian-speaking participants say they would ask others for help. Further, rather than reaching out to their social networks, Russians were more inclined to seek out information

online and would even go to the designated County website if it was necessary to resolve a concern or question. Two participants indicated that they would subsequently try calling the number provided.

The Russian participants were likely to keep the guidelines and would refer to them as long as the medium on which they were published held out. All participants found the garbage guideline helpful and three would keep it on the fridge, but one participant would only keep this guideline if the format (size) was modified. One participant said she would keep the recycling guidelines, “because it’s hard to remember everything,” and one reported that she would keep them “on the fridge because it’s very easy to find [there] until the new recommendations come out.” – Russian Participant #2

Like other participants from other ethnic groups, very few of the Russian participants were able to correctly define “uncoated paper.” The participants responded, saying:

“Yes, intuitively it makes sense, all paper that is recyclable.” – Russian Participant #3

Uncoated paper is “any paper napkins, pizza boxes, any boxes for frozen food.” – Russian Participant #4

The Russian participants would prefer to receive the in-language guidelines either via Email or in-person.

Memorable quotes

When asked how we could encourage the Russian community to recycle more, one participant eagerly said:

“Maybe [you could] tell more about it and provide more info about what happens to recyclables after they are picked up; and money-wise, since recycling could reduce the size of the garbage and the price and maybe teach it in school, have one person dedicated to it.” Russian Participant #2

Hindi

The Hindi participants tended to get their recycling, compost and guideline information from the internet, about half the time they would get the information from Waste Management’s website. Of those participants that did recall receiving previous King County educational materials, none of them saved the information, though they claimed to refer to the website for more information when needed. Like the Russian and Somali Participants, the Hindi participants did not indicate that they would utilize their network for help. However, despite this, we believe that more investigation may be needed. Our experience at TDW+Co experience indicates that the Hindi population has a fairly tight-knit social network and that information would travel quickly within the social context.

When discussing the current in-language guidelines, Hindi participants believed the in-language guidelines were helpful and that the guidelines clarified information and helped them to “recycle better”, though they were not very likely to keep the guidelines for very long. The Hindi participants planned only to keep the guidelines until they became sufficiently familiar with the guidelines so as to have them “memorized;” They essentially preferred to rely upon their memory to make decisions about garbage, recycling and compost. However, our impression of the Hindi participants who were parents of young children was that they were more likely to keep the guidelines a little longer since the guidelines would be a useful didactic tool for teaching their children the Hindi language.

When asked to choose a preference between the website and the listed phone number, half of the Hindi participants indicated that they would use the WM website rather than the phone to clarify information in regards to garbage, recycling or compost; the other half indicated they would utilize the phone number first. The participants answered these questions consistently for all three guidelines. However, one

participant later clarified that he would search out answers from the internet but not necessarily from the WM website.

When asked about the Hindi version of term “uncoated paper” (or when presented with the English term) none of the participants understood the meaning. Neither were there any participants that could clearly explain the difference between plastic and compostable bags.

Finally, when asked, Hindi participants indicated that they wanted other more accessible formats but did not agree on the format: Magnet for fridge, door hanger, or a large poster-sized guideline for public viewing. The participants also did not concur on the best means for receiving the guidelines: online, mail, “any form is ok.” One participant suggested that “all new residents should receive the paper-based guideline,” suggesting that the residents could get the guidelines with their first Waste Management bill. (We, at TDW+Co, believe that a partnership could be made with the PSE or with apartment managers to deliver these to new residents, especially to those individuals who live in multi-family structures and may not have a separate WM bill.)

Memorable quotes

When asked about the Hindi version of term “uncoated paper” (or even when presented with the English term) none of the participants understood the meaning. One participant duly noted: “The term “uncoated paper” is not clear in English. [It is] not a problem with the translation.”

None of the participants was able to clearly indicate the difference between compostable bags versus plastic bags. However one participant explained that the “Be a FoodCycler” section helped broaden her understating a little more clearly. “Yes. They are showing me that I should not use the regular plastic bags. It is making it clear.”

Somali

The Somali participants tended to be mothers with small children at home and were very involved with the economies of the kitchen, including dealing with garbage, recycling and compost. For the most part, these participants did recall receiving the previously published King County recycling guidelines and kept them “someplace accessible,” usually in the kitchen or on a shelf. Several of the participants indicated that they would review the guidelines over the weekends. A few participants indicated that they kept the previous guidelines until they “got familiar with it.”

As with other ethnic groups, the participants were asked about how they resolved a recycling, garbage or compost issue prior to the in-home interview. Interestingly, each participant indicated that they would each employ a distinct tactic, yet none indicated that they would rely on their social network. This is interesting because our experience with coordinating the interviews (finding one trusted, “in-group” coordinator to schedule all of the appointments) would lead us to believe that the Somali people would normally rely on their own social network to resolve issues. In the end, one participant indicated that she was unsure what she would do to resolve the issues, another indicated that she would probably “look at the websites or google,” and another would rely on her previous knowledge or on the previous guidelines she might have in her house.

Additionally, when asked about their preferences to use the website or the phone number given at the bottom of the page, most of the participants were ambivalent and would use either resource if the need arose. Again, none indicated they would prefer to speak to a friend, neighbor, or trusted community member.

The participants found each of the in-language guidelines helpful and would keep them in an accessible place, usually in the kitchen or the fridge. However some would only keep the in-language guidelines until they were familiar with the information. One participant indicated she would keep her compost guidelines next to her garbage.

The participants could not explain the difference between a plastic bag and a compostable bag.

All of the participants indicated that they would like to receive the in-language guidelines in the format of a magnet (though it is unclear if they would want a large or small magnet). Some also indicated they would like a sticker format of the guidelines “for easier access”. However, half of the participants would prefer to receive the guidelines by mail and the other half indicated that an email would be a suitable way of delivering the guidelines.

Memorable quotes

When speaking of improving recycling among the Somali community, the participants said:

“A person would not necessary get it the first time. Ongoing education and relevant information related” - Somali Participant #5

“Education is important for our community. Share information to educate public on the importance of recycling” - Somali Participant #4

Amharic

Based on our limited research with the Amharic participants, we believe the Amharic community would find the in-language guidelines most novel and informative, and all the participants felt the in-language guidelines were helpful and would help them make better recycling choices. The novelty of the in-language guidelines was expressed several times across the several interviews, and one participant expressed surprise and awe when he discovered there was a different way to handle recycling, garbage and compost:

“I did not know the distinction among these three before, so it helped me to understand” – Amharic participant #1

Because the participation with this ethnic group was not as consistent as other groups, we cannot provide very general findings. With the exception of the opening paragraph of this section, the findings for this group are then specific to the participants indicated.

The Amharic participants could not recall ever receiving the King County Guidelines; and if they had a question about recycling, garbage or compost they would either “ask the Landlord” or use “my personal knowledge.” When asked about whether they would prefer to use the website or the phone, one participant would use the website, call or email, while another would “ask the Landlord.”

Like other participants in other groups, the Amharic participants could not explain “Uncoated paper” and could not fully explain the difference between plastic bags and compostable bags (“They are the same” or “Plastic bags are reusable”). In regards to the compost collection containers used on the kitchen counter, all the participants indicated that they would or do use some form of the container to collect compost if they were available to them.

The participants would like to receive the in-language guidelines either by mail or from the Landlord; one participant suggested that a door hanger might be an acceptable format.

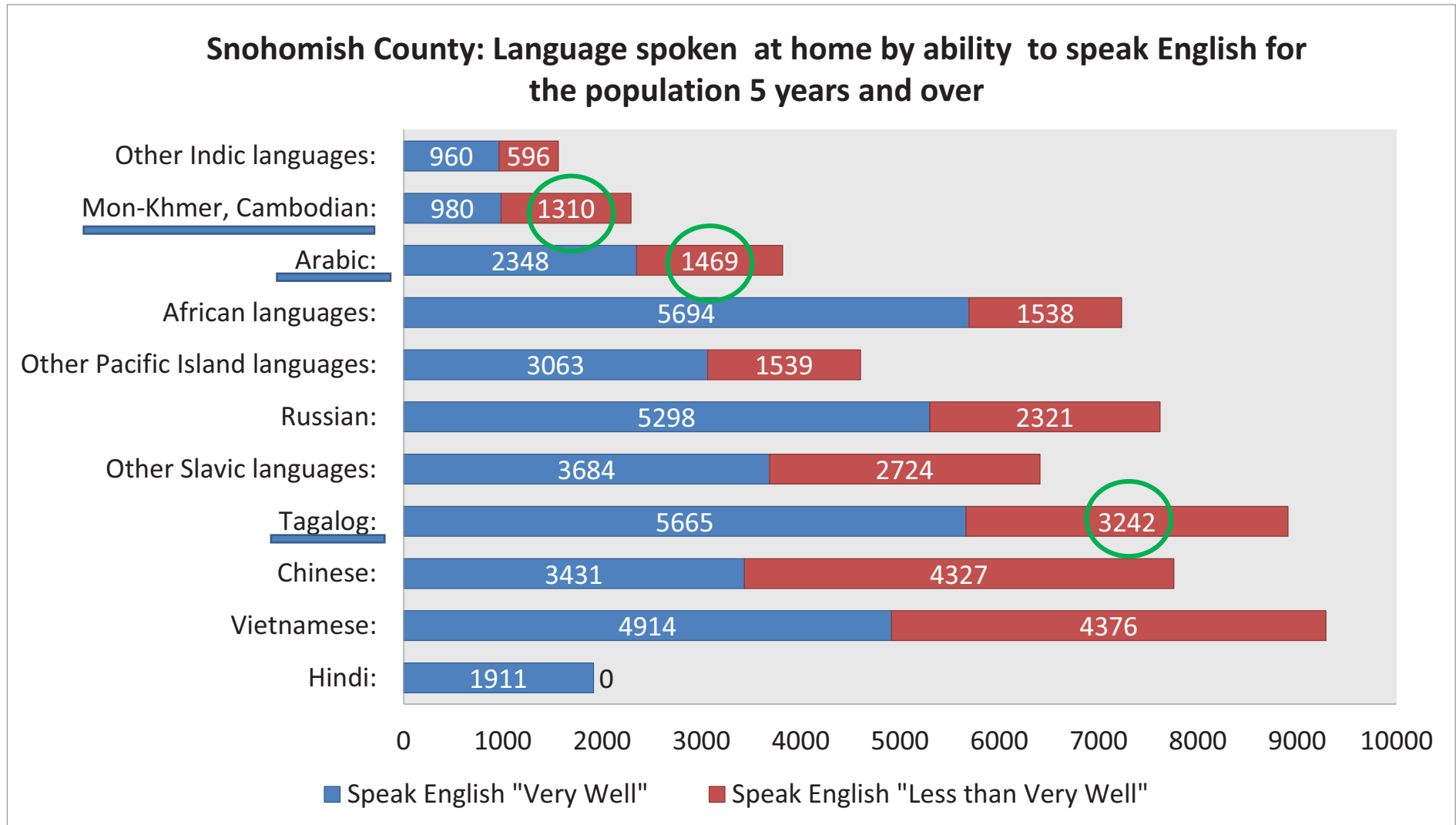
Memorable quotes

Do you compost? “Never, because I did not know the difference between garbage and compost until I saw these brochures” – Amharic participant #1

How can we best encourage the Amharic-speaking community to recycle more? “Distribute the information widely [enough] so that everyone can learn.” – Amharic participant #2

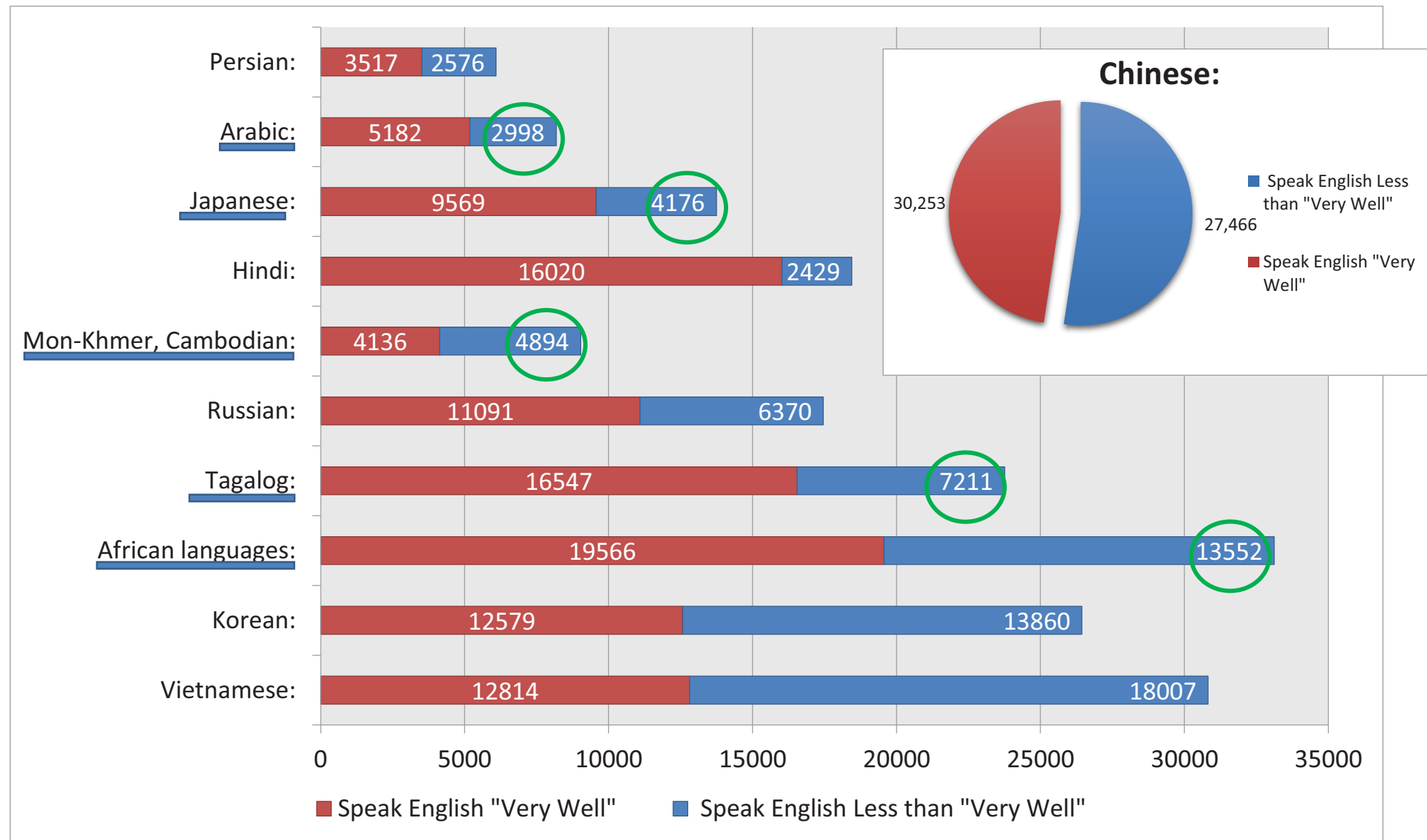
“I suggest [sending] this information through community centers so that they may reach many people.” – Amharic participant #1

APPENDIX H: Population by English-speaking ability, Snohomish County



Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

APPENDIX I: Population by English-speaking ability, King County



Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

APPENDIX J: Transcreation Process

