A Localization Theory: User Experience Research in the United States & Canada

by

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A Thesis Presented in Partial Fulfillment
of the Requirements for the Degree
Master of Science

Approved April 2018 by the
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ARIZONA STATE UNIVERSITY

May 2018

ABSTRACT

Today, in the internet-age with global communication every day, it is more important than ever to learn how best to communicate across cultures. However, a review of literature and localization research reveals no studies comparing written communication preferences between cultures using the English language. This gap in research led me to my question–How do localization needs or preferences differ between English-speakers in the U.S. and Canada? To answer my research question, I created a study focused on written communication using a quality measure after consulting the IBM rubric (Hofstede, 1984). I incorporated a demographics questionnaire, a sample document of an Alberta Government brochure, and a survey to measure participant perceptions of quality for use with the sample document. Participants for the study were recruited from Phoenix, Arizona and Edmonton, Alberta, Canada. All participants reviewed the Canada-based sample document and answered the questions from the survey. The survey responses were designed to obtain data on culturally specific variables on contexting, which were critical in understanding cultural differences and communication preferences between the two groups. Results of the data analysis indicate differences in cultural preferences specific to language, the amount of text, and document organization. The results suggest that there may be more significant differences than previously assumed (Hall, 1976) between U.S. and Canadian English-speaking populations. Further research could include a similar study using a U.S.–based document and administering it to the same target population. Additionally, a quality-based measure could be applied as a way of understanding other cultures for localization needs, since inadequate localization can have an adverse impact on perceptions of quality.

DEDICATION

I dedicate this work to my loving family. To my dear husband, Shaun O'Brien, thank you. To my amazing children, you have all been tremendous–without your never-ending love and support, this process and achievement would not be possible. To my parents–near and far, my extended family and supportive colleagues–you encourage and inspire my work in research and academia with your continued support.

ACKNOWLEDGMENTS

This thesis would have never been possible without the help of my gracious committee. To my committee Co-chairs, both Dr. Eva Brumberger and Dr. Barbara D'Angelo–thank you for your support throughout my thesis and program, from inception to completion, and continuing advice. Since the very beginning, Dr. D'Angelo, you have made an incredible contribution to my academic aspirations and successes. A special thank you to Dr. Barry Maid for your contributions in the review process of this document. Together, all of you supported this effort and encouraged my eagerness to research the relationship of culture and communication–I express my gratitude genuinely, thank you.

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CHAPTER 1. INTRODUCTION

For centuries, people have tried to determine classifications of persons and groups as a way to talk about and relate with one another. In one somewhat humorous tale, *Gulliver's Travels*, Jonathan Swift tells of a journey between lands with vast differences– little people, giant people, flying island people, and animal-like people (1710). In this tale, exaggerated differences among groups highlighted how challenging communication and interpersonal relationship building was for his young voyager.

In fact, the Swift voyager's experience mirrors the experiences of technical communicators and end-users today. Due to the vast evolution of technology in the centuries since Swift, the landscape of communication is now virtual. Users all across the world can communicate by the push of a button or the swipe of a mouse. Today, with the movement of communication from traditional modes to technology-enhanced mediums, people can communicate faster than ever before. In a business environment, people communicate across borders and around the globe using video, real-time chat options, web, and email. In reality, culture and cross-cultural communication have resonated as topics of interest and inquiry across disciplines in academia and practice for decades upon decades.

Culture and communication have long been passions of mine–particularly in the ways that the two intersect. My undergraduate majors of English (focusing on business writing, gender in literature, and British Literature) and Sociology (focusing on cultural diversity and interpersonal communication) supported my creative interest and understanding of culture and communication, which led to my career development in teaching beginning English to primarily Spanish-speaking community college students.

Years later, as one of only two technical writers for an Environmental Engineering company with 9,000 employees, there were various writing, and documentation needs to address. Primary responsibilities included scientific reporting, laboratory result cataloging, drilling waste report processing, proposal coordination, marketing and promotional material design, and more. In this role, I supported scientific reporting and process documentation (and development) for both sides of the border with most of the work occurring in Arizona and Western Canada using similar yet different scientific guidelines. I wrote and coordinated the company style guide using Canada and U.S. style manuals. I worked with fellow staff to implement changes and improve documentation consistency in reporting for the U.S. and Western Canada. In the development and review process, a few nuances became apparent. Beyond the capitalization and spelling differences, other cultural preferences in language, amounts of text, and organization were prevalent in the Canada based documents. Because of the style guide (and the implementation of technical writers in the reporting process), communication and reporting became more standardized. Although the report contents were similar in the U.S. and Canada, reports written for various provinces in Canada shared more similarities to one another than the U.S. reports. The Saskatchewan, Manitoba, and Alberta province reports shared style elements regarding amounts of text, language, and organization, and they diverged from the U.S. reports on those characteristics. Ultimately, the differences I observed led to this research study.

Cultural variation and cross-cultural communication led me to my research question–How do localization needs differ between English-speakers in the U.S. and Canada? To answer this question, I created a study focused on written communication

using a quality measure based on the IBM rubric (Hofstede, 1985). Existing literature on cultural theory (Hall, 1976; Hofstede 1984), cross-cultural communication (Cardon, 2006) and localization (St. Germaine-Madison, 2009) informed this research study.

Building on the existing research and using the IBM quality rubric as a general framework to create a quality measure, I designed a research study using an online survey for remote distribution. The online survey included a culturally relevant sample document that participants evaluated based on their perceptions of quality using the quality questionnaire (adapted from the IBM quality rubric [Hofstede, 1984]). The survey and sample document were transmitted electronically to participants in the U.S. and Canada. I utilized the Wilcoxon-Mann-Whitney test to identify statistically significant differences in the responses of U.S. and Canada-based participants. The data suggest that Canada-based participants preferred the Canada-based document for language, amount of text, layout, and organization.

CHAPTER 2. BACKGROUND LITERATURE

In this chapter, I discuss relevant research on cross-cultural communication, localization, and same-language localization needs between the U.S. and Canada. I will first identify culture, differences between cultures, and the importance of cross-cultural communication in a technological era. Additionally, I include a discussion of current research and culture differences in the same language, English-speaking environments of the U.S. and Canada.

Understanding Culture

Culture is hugely complicated–it highlights both how we connect with and differ from others based on language, beliefs, communication styles, "systems of nonverbal communication, material culture, history and ways of doing things" (Hall, 1976). Culture is the element of the environment that is uniquely human (Samovar, 1991) and it evolves with time. Because of this transformation, understanding culture and communication together is critical. Researchers and theorists (Hall, 1976; Hofstede, 1980) have analyzed social groups and connections to gain awareness on cultural preferences on organization, structure and communication style between groups. For centuries, researchers and theorists (Marx, 1884; Durkheim, 1883; Hall, 1970; Hofstede, 1980; St. Amant, 2005) have attempted to detail the complexities of culture in digestible detail.

In the late twentieth century, theorist Edward Hall (1976) defined cultural communication differences using the imagery of an iceberg, with visible and invisible (under the water's surface) elements. Hall's iceberg model includes three elements–behaviors are at the top, beliefs are just at or above the water surface with values and thoughts submerged in the water. This illustration offers a simple image to describe a

complex structure of human interaction and culture whereby the insiders are aware of all elements and outsiders are aware of only the visible features. Other essential attributes of the iceberg model, as detailed by Hall (1976), indicate that the visible parts of culture are also more easily changed. For example, an outsider can see how people from another culture act, but not how they think or believe. Moreover, behaviors are more natural to change than beliefs. This relationship between the external and changing versus internal and lasting illuminates the complexity of culture and how quickly (or not) elements of culture can change. This challenge of inner and expansive versus external and limiting is problematic for researchers hoping to identify and define culture and communication styles across groups and the globe.

Founding Cultural Theory on Contexting & Time Orientation

Hall's (1976) classification on contexting refers to cultural preferences regarding how much background information is expected in communication and remains relevant today. Contexting relates to how individuals perceive and understand communications or interactions, which is particularly important for written and cross-cultural communications. For example, someone from a low context culture might prefer an email to initiate a new business relationship whereas a person from a high context culture could prefer an in-person meeting to email. This simple scenario highlights the challenges of interactions between low and high context. Moreover, understanding contexting, and how different cultures prefer communications according to the contexting scale, is particularly important for all cross-cultural communications where end user interaction and understanding is paramount. As a result of the powerful evolution of

contexting, in the decades since inception, illuminate why Hall's initial theories resonate in literature across disciplines with an emphasis on cross-cultural communication.

Hall also classifies cultures by their orientation to time: monochronic (m-time) and polychronic (p-time). Hall's time orientation, like context, are like points on a continuum and represent how cultures organize time and space. M-time includes an emphasis on schedules and promptness, and p-time includes several things occurring at once. In other words, a p-time oriented culture would be more concerned with reaching a goal than the time and order it took to achieve the goal, which could be highly problematic for a business transaction. A difference in time orientation could cause difficulties in cross-cultural professional communication situations.

Moreover, time orientation may be linked to contexting preferences. For example, the U.S. is more m-time and low context in contrast to Latin America, which is more p-time oriented and higher context (Hall, 1976). Generally, cultures with an m-time orientation prefer directness in communication and are typically more low context. Alternately, cultures who are more polychronic prefer less direct, more nuanced communication. Based on language preferences, European cultures are often regarded as being low context and Latin cultures as high context. However, on Hall's contexting scale based on languages (1976), English and Spanish are near the middle and neither highest nor lowest. Languages near the ends of the contexting scale are shown as German with lowest and as Chinese with highest (Hall, 1976). This representation indicates that there are differences in communication style and preferences on a large global scale. Ultimately, these differences–contexting, directness and time-orientation, affect communication in cross-cultural scenarios.

Additionally, Hall's (1976) contexting scale presents a challenge with terminology. Hall uses terms of *American* and *English*. Both are displayed on the scale near one another, and near the middle, but on the lower context side of the range. The placement on the scale indicates that in comparison to other labels of *Spanish*, *Mexican* and *Chinese*, both *American* and *English* are lower in context. However, the simplicity of the scale also presents challenges. There is no distinguishing between American and English for language, specifically American-English, British-English or Canadian-English (Hall, 1976). Also, the scale does not offer a way to decipher specific English-speaking regions.

Critics of Hall (1976) argue that his theories lack empirical evidence and are too vague (Cardon, 2006; Batova, 2010). Hall himself relates his contexting model as having two contrasting features–one with extremes of highs or lows, and two, as a scale with cultures having elements of both high and low. Some critics see this as a fatal flaw–Hall essentially arguing with himself, saying that Hall challenges his personal opinions on contexting (Cardon, 2006). However, the same scholar (Cardon, 2006) also offers Hall's theory on context to be the most crucial consideration for communication research–arguably negating his challenge of Hall.

Foundational Culture Research & IBM

A second theorist in the late twentieth century, Geert Hofstede (1984), defined culture according to dimensions or differences between groups based on his 1980 study with IBM. The study generated over 100,000 surveys from 66 countries. The results indicated cultural attitudes from IBM employees over two survey distributions with each four years apart, starting in 1967. The results of this study were the foundation for

Hofstede's cultural dimensions based on country. When examined at the country level, consistencies began to appear in the data (Hofstede, 2009), which led to Hofstede's recommendation of large data sets with by-country examination for correlation (Hofstede, 2011). Based on his research data, Hofstede (1984) described cultural differences based on dimensions used to measure and compare groups (Hofstede, 2011). According to Hofstede (1984), the six dimensions are:

- Power Distance relates to the power distribution (of the influential and less influential) within societal groups like the family and institutions whereby the power distribution is promoted by both the less powerful and the more powerful
- Uncertainty Avoidance relates to differences between the weak and the strong with uncertainty avoidance which is classified by how inherent uncertainty is accepted with associated less stress or feared
- Individualism versus Collectivism relates to an individuals' perceived ability to act based on their interests versus the interests of the collective
- Masculinity versus Femininity relates to societal (national, not individual) characteristics of assertiveness versus modest and caring whereas “masculine” is assertive and “feminine” as modest.
- Long-Term versus Short-Term Orientation is the societal perception of time relating to life sequences as a long-term oriented society sees essential life events as occurring in the future; versus a short-term oriented society which sees essential events as happening in the past or
- Indulgence versus Restraint is the orientation of gratification versus control of human desires.

Ultimately, Hofstede describes each country, based on their differences or relationship to extremes, relative to other countries through a score on each dimension (Hofstede, 2011). In total, Hofstede's dimensions identify cultures based on the ways persons relate to elements in their culture like power, individualism, masculinity, uncertainty, time, and indulgence. In contrasting cultures, using Hofstede's model, the U.S. and Canada share many similarities; however, they differ slightly on cultural sentiments regarding individualism, masculinity and long-term orientation. Individualism and masculinity are preferred in the U.S., and long-term direction is preferred in Canada. However, these identifying characteristics in Hofstede's theories are only prevalent from a country perspective, which I would argue does not enable enough flexibility to represent the population when determining communication characteristics. Moreover, these characteristics describe culturally significant factors; yet, they are not all directly relevant to communication styles that could affect cross-cultural written communication. For example, a country may prefer authority or disregard authority, but the preference may not directly affect all written information outcomes as commonly as other factors like those of contexting (which could relate to Hofstede's ability to see differences only on a countrywide-scale).

Critics of Hofstede (1984) cite limitations with the IBM rubric (Sun, 2012) and the broad nature of his cultural dimensions (Bakersville, 2003). The IBM rubric used in Hofstede's research focused on IBM employees with technical terminology and therefore may be limited in its generalizability (Sun, 2012). Likewise, categorizing cultures according to country makes it challenging to isolate or determine any preferences by sub-populations or cultural pockets within a country (Batova, 2010). Even Hofstede

recommended research on national levels because he was only able to connect the patterns, at the country levels, he identified as dimensions (1984). However, grouping whole nations together as one culture and labeling the relative patterns is problematic (Bakersville, 2003; Cardon, 2006; St. Germaine-Madison, 2009). Additionally, Hofstede himself made changes to his dimensions, by expanding his dimensions from five to seven dimensions years later, which weakened his argument for their validity and the possibility of the dimensions as fallible (Hofstede, 1980, Hofstede, 2001; Bakersville, 2003).

Ultimately, despite ample critiques, the prominence of these theorists and their cultural models in current research, tell another truth–although there are challenges with generalizations and evidence, their content is very valid (Cardon, 2008; Batova, 2010). Hall (1976) and Hofstede (1984) have been validated as appropriate and verifiable (Cardon, 2008; Moura, Singh & Chun, 2016); and the use of current research using quality measures indicate such tools as necessary (St. Germaine-Madison, 2009). A *Meta-Data Analysis of Literature on Intercultural Business and Technical Communication* by Cardon deconstructs years of literature and considers the prominence of Hall and Hofstede theories where he points out the various treatments of follow-on researchers with these prominent theories, and despite their differing treatments in the subsequent research, both are validated (2006).

Despite their critics, the foundational theories of Hall (1976) and Hofstede (2009) are critical in understanding global communication needs. In fact, some scholars argue that contexting is the most important theory to consider (Cardon, 2006), as it relates directly to communication needs. For example, a high context culture could prefer in-person and non-direct communication whereas a low context culture could prefer written

and more direct communication. These style preferences have the potential to affect outcomes and user understanding communication.

Localization Defined

Localization, a form of cultural adaptation that can improve intercultural communication, is a widespread issue across disciplines (Cardon, 2008; Batova, 2010; Ledet & Baile, 2005). Additionally, as numerous scholars have argued, "Exploring cultural localization issues […] is overdue" (Moura, Singh, & Chun, 2016). *Localization* is the modification of created materials based on the culture of the intended audience (Batova, 2010). Localization in technical communication includes many facets, including textual content, layout, images, and more (Bailey, 2006; TCBOK, 2017). Localization aims to negate bias based on cultural nuances and norms. Localization differs from other translation and adaptation processes of globalization and transcreation. For example, to localize an informative brochure, the content could be modified based on Hall's model of contexting by adapting the material to more direct or indirect phrasing and formatting (amounts of text and layout) to improve end-user satisfaction and understanding of the content. In specific scenarios, localization research on this type of customization has proved as beneficial for the end-users (St. Germaine, 2009).

Translation is the transitioning of text from one language into another. Although translation and localization are sometimes used together and can be complementary, the terms differ. For example, if a document is in English, it can be translated into Spanish. If needed, the same Spanish translated text can be localized (Batova, 2010) by adding high contexting elements or modifying the amounts text to make the document appear less direct and more aligned with the user preferences (Hall, 1976). Moreover, texts can

be void of culturally specific language to improve translation, as certain cultural expressions do not translate into other cultures appropriately. Specially sourced, lacking culturally specific or colloquially identifiable and problematic language, texts created for translation can transition into other languages with greater ease than developed texts without consideration of translation or cultural adaptation (TCBOK, 2017).

Transcreation is the creation of a new text—based on differences from the original text—cultural nuances, adapting format, images and more (Kelly, 2013; Batova, forthcoming). For example, a person from one country could locate a source document from another country and customize its content for their own needs using their cultural nuances, formatting and more, as intended for their regional distribution and consumption (Batova, forthcoming). In essence, transcreation is the creation of a new document from an existing document by the intended user, which more appropriately represents the user perspective than the original author does. In contrast, a core difference between transcreation and localization is the purpose. Transcreation is creating something new for a new use from an existing source, whereas localization is adapting a current source for another culture. Ultimately, the localized text should resemble the original, over the transcreated version, in intention and purpose.

Globalization is the process of creating technical communication for the worldwide market, a method that assumes one universal language or writing style is possible (stripped of social connectivity or colloquialisms to promote broad application). Often created based on a low context basis with a more direct writing style and short formatting using elements like bullets and list formatting. Additionally, internationalization is the process of planning for needed combinations of adaptation

techniques including globalization and localization—a blend of two types of cultural adaptation (TCBOK, 2017; Batova, forthcoming).

In the comparison of terms, translation is language adaptation, globalization is the removal of cultural variables to approach language and cultural variables in a standardized way, and transcreation is creating something different from a document originally intended for something else. Altogether, the three terms all relate to localization but address it differently. Localization is meant to supplement cultural variables and improve communication across cultures in the most efficient way.

Current Research in Localization

Research in localization is especially crucial for medical information. In the U.S., the vast Spanish-speaking population gave cause for Ogilvy Public Relations Worldwide (2005) and the Center for Disease Control and Prevention (CDC) to research preferences to inform their subsequent information release on the Human Papilloma Virus. This research tied technical communication, localization and medical information together in the U.S. and was later further analyzed in follow-on research. St. Germaine-Madison, also examined the Ogilvy (2005) data set (St. Germaine-Madison, 2009) to determine preferences of U.S. Spanish-speakers and differentiate this population from the more-commonly associated Latin American population preferences on rhetoric and style. The research identified and isolated a geographically isolated sub-population, to understand and improve user perception and comprehension of time-sensitive medical information. St. Germaine-Madison's research (2009) confirms localization preferences in rhetoric and style for the U.S. Spanish-speakers based on tone, contexting, directness, color, and imagery. Altogether, Ogilvy (2005) report and St. Germaine-Madison's subsequent

research helped to inform technical communication research on localization by highlighting differences between groups that are frequently lumped together and overgeneralized in existing literature. As highlighted in St. Germaine-Madison's research, there are frequent needs for differentiating communication preferences based on localization and culture differences for style and rhetoric (2009).

Moreover, localization research has been completed in the U.S. and Mexico (Thatcher, 2006) motivated by business connections and a need for communication development. This research further highlights the importance of improving the understanding of localization preferences. Thatcher (2006) recommends reducing assumptions and increasing research in localization to better understand the way people communicate across cultures. Altogether, the research on localization has proven positive and informative with considerable room for more research, awareness and custom content for international and cross-cultural communication.

Considering the U.S. and Canada

Similarly to St. Germaine-Madison's (2009) study, I chose to isolate a sub-population in North America to determine localization preferences using a medical flyer with culturally adapted imagery and contexting. However, for my research, I chose English-speaking participants in a cross-border scenario, due to my existing network and access in the U.S. and Canada. Additionally, to build upon cultural theory and existing literature, I chose to create an adapted quality measure based on the IBM rubric (Hofstede, 1984) to determine end-user perceptions with a test and a sample group by using a single-source cultural text for one group and not the other.

The U.S. and Canada offer an opportunity for cross-cultural and international research with geographically and linguistically similar populations. Arguably, due to the geographical similarities between the U.S. and Canada, and the crossover of commerce between the two, their differences (if any) are likely to be less than English language users with greater distance (less geographical similarity) and limited crossover.

Researching communication preferences and differences between the U.S. and Canada pairs with other North American localization research (Thatcher, 2006; St. Germaine-Madison, 2009) that focuses on sub-populations with commerce and communication crossover with the U.S. to improve perceptions of quality and comprehension of written materials (textually and graphically). Ultimately, this research study could offer insights on communication preferences that can guide technical communication practice and further research.

CHAPTER 3. METHODOLOGY

How do localization needs or preferences differ between English-speakers in the U.S. and Canada? To answer this research question–I created a research study focused on written communication using a measure based on quality concepts of the IBM rubric (Hofstede, 1985). The study incorporated a demographic questionnaire, an Alberta Government brochure, a survey to examine user perceptions of the effectiveness of the sample document from the Alberta Government, and data analysis. In this section, I detail the processes of recruiting participants, selecting a sample document, designing the study, and collecting and analyzing the data.

Recruitment

To reach the intended audience, I leveraged existing professional and academic networks, distributing the Qualtrics link to the survey through Facebook and LinkedIn and Arizona State University listserves. The survey participants came from an array of academic and professional experience levels to represent possible primary, secondary and tertiary audiences for technical, medical or business documentation. Participants from Canada originated primarily from Edmonton, Alberta, Canada. In the United States, the participants were mainly from Phoenix, Arizona, and Arizona State University program affiliates on campus and online. Participant pool locales were selected based on availability and access. Due to the time constraints of the research project, the distance to the participant pool, and limited financial resources, participants were recruited using online information transfer only.

Sample Document

To keep survey time requirements minimized, the sample document needed to be easy to review. Other research on localization (Ogilvy, 2005) was successful using sample documents of posters and brochures with different imagery and amounts of text, with the intention to measure preferences in tone, clarity, style, color, and graphics. Similarly to the existing research on localization, I chose a sample document with culturally specific spelling, organization, and amounts of text. This sample document was selected to represent differences between the U.S. and Canada based on language or spelling (e.g. organization versus organisation, and check versus cheque), non-linear organization styles (Kaplan, 1966; Thatcher, 1999; St. Germaine-Madison, 2009) and contexting with higher context than expected in the U.S. [Hofstede, 2011; Hall, 1976]).

In my previous work experience, between the U.S. and Canada, I observed differences in language (spelling), amounts of text and organization styles consistent with contexting as described by Hall's contexting model (1976). So, to examine my research question on localization differences, my sample document needed to include culturally specific visible differences between standard conventions in the U.S. and Canada. For the sample, a Canada-based medical brochure from Alberta Government was selected. The Alberta Government produces ample documentation on a variety of technical communication including environmental specifications, governmental requirements, and medical information for the Alberta province. Similar reporting agencies exist for other regions in Canada including Saskatchewan and Manitoba (and more), but Alberta Government produces a greater variety and quantity of technical communication. Therefore, the magnitude of communication from the Alberta Government made it an

excellent source for locally created and styled dialogue for intended Western Canada and U.S. participants. The document reflected the local culture of Alberta, Canada with specific language, amounts of text and organization. Despite the foldable brochure format, the material displayed on two standard paper sized images when viewed electronically. The use of the Alberta Government logo on the sample reflected authority, validity, and presumed consistent formatting for like documents. Additionally, the medical nature of the brochure married both technical communication content with a broad target audience including non-technical communicators.

Survey Design

The survey was designed for international distribution–online with limited attached file size and brief (to be completed in less than ten minutes). The study included a consent form, demographics questionnaire, sample document (online attachment or link), and quality questionnaire.

Survey participants were asked a series of demographic questions, including their field or occupation, years of professional experience, highest degree completed, primary language, ethnic background, and age. These demographic questions were essential for understanding elements that may affect perceptions and outcomes of the quality survey. For example, someone who has an advanced degree could have additional experience with Canada-based documents than someone without a degree. Additionally, someone with a medical or technical background could interpret the quality of medical communication differently than someone from an alternate profession.

The consent form was created according to the Internal Review Board (IRB) template and requirements. The form-required participants to acknowledge consent

before proceeding with the survey–without it, users were required to exit the study. All participants were then required to review the Canada-based document and answered the questions from the survey. The survey responses were designed to obtain both qualitative and quantitative data on culture-specific variables. The survey results transmitted and saved automatically in the Qualtrics survey platform.

To inform the survey results and identify participants by region for comparison, some aspects of the demographics survey were critical to the overall data outcomes. Questions in the demographics survey were exhaustive, with all possible options considered–participants could select from multiple choice options or fill in an explanation with the "other" category selection. Specific questions, relative to the sample scenarios, for regional comparisons, include primary languages(s) and location. Additional items in the demographics survey include field or occupation, years of experience, age, education, and ethnicity. For the demographics survey, participants were not required to respond to questions. Responses to demographics items were elective, and participants were able to proceed if they elected to do so.

To measure the localization preferences between the U.S. and Canada, I adapted and designed a measure for document quality of end-user perceptions to use with a sample document. The target audience of end-users across disciplines in academia and practice negated less formal language and a variety of indicators aimed to represent cultural differences in rhetoric and style. Based on the IBM rubric, a tool designed to measure document quality for technical communicators (Hofstede, 1984), the survey measure for this research was created to analyze quality perspectives for a general non-technical audience. To generate a rubric to measure quality for non-technical

communicators, I used modified language and scaled questions to suit a brief survey format.

In the survey, respondents reviewed the sample document and answered questions on document language, appearance, and quality based on the IBM quality rubric (Hofstede, 1985). The IBM rubric was designed to assist in technical information review by technical communicators–to identify strengths and weaknesses in documents. For this research on localization and technical or non-technical user preferences, the rubric was adapted to suit the audience and platform by reducing the technical jargon and content questions overall. In specific sections, the rubric highlighted ease of use, task orientation, accuracy, completion, and clarity as necessary sections. For example, the section on Clarity includes statements on meaning, unambiguous language, length, and element flow with a five-point Likert item to scale the responses (1-5).

Since the study did not provide term definitions for the quality questionnaire, responses are indicative of user-imposed denotations and connotations. Therefore, terms and statements of layout logic, consistency or trustworthiness were measured using user definitions. For this research and clarity, the intention of using subjective terms relates to the IBM rubric and the U.S. and Canada participant group differences. For example, seeing the Alberta Government logo could imply trustworthiness for the document sample for either the U.S. or Canada group or both, depending on their associations and understanding of authority. With varying cultural concepts relating to contexting (Hall, 1977) or power (Hofstede, 1985), the specific terms pulled from the IBM rubric were used to gain perspective on how cultural differences and concepts change (or may not change) the interpretations of quality in a document review for either participant group.

For the document quality survey, participants answered a sequence of questions with five (5) Agree, Disagree, "I don't know" options; ten (10) with 5-point Likert item selections; and five search-and-find with summary (yes, no and open-ended) questions. The agree, disagree, and Likert item questions were evaluated for statistical significance; the search and find question responses were designed for qualitative analysis but were ultimately removed from the results due to the limited number of responses.

The quality questionnaire was designed for quantitative analysis, based on the recommendation of previous localization research (St. Germaine-Madison, 2009). More specifically, the questions were oriented to be brief, with objective response options that varied to encourage continued participant engagement.

Analysis

In order to measure the statistical significance of the results for categorical survey questions (agree/disagree/don't know), I used the Fisher's Exact Test. The Fisher's Exact Test demonstrates statistical significance by using contingency table analysis, where it evaluates each independent group, compares relevant response categories, and compares those responses with that of the other group to determine whether the difference in responses was likely to be real or due to chance. The Fisher's Exact Test is recommended for small, unequal sample sizes and situations in which some categories have fewer than five responses.

For the 5-point Likert item responses, I used the Wilcoxon-Mann-Whitney (WMW) test for analysis due to the independent variable groups of U.S. and Canada, and the interval response types (two-tailed measure with equal intervals as indicated by the Likert-item as the center is neutral and either end is opposite one another). The WMW

test does not assume that the group sizes or variances are the same; therefore, the results are more reliable than those obtained using independent samples T-test.

CHAPTER 4. RESULTS

There were 76 complete responses and 32 incomplete responses to the survey. The incomplete responses were removed from the data analysis. All participants self-identified current location; there were 20 Canada-based and 56 U.S-based participants, 26% and 74%, respectively, of the total participant pool. Based on the survey, the majority of the participants (98.8%) were from the U.S. and Canada.

Demographics

Survey participants were asked a series of demographic questions, including their field or occupation, years of professional experience, highest degree completed, primary language, ethnic background, and age. These demographic questions were essential for understanding elements that may affect perceptions and outcomes of the quality survey. For example, someone who has an advanced degree could have additional experience with Canada-based documents than someone without a degree. Additionally, someone with a medical or technical background could interpret the quality of medical communication differently than someone from an alternate profession.

Education

Survey Participants were asked about their education, as a possible indicator of increased bias or understanding of cultural differences, which could affect their perception of localized or non-localized documents. The responses indicated that a majority of the participants attended college. Most of the Canada-based respondents, 60%, reported having a two or four-year degree. In contrast, 59% of the U.S. respondents responded that they held a master's (or equivalent), or a doctorate. Figure 1 illustrates the differences in education.

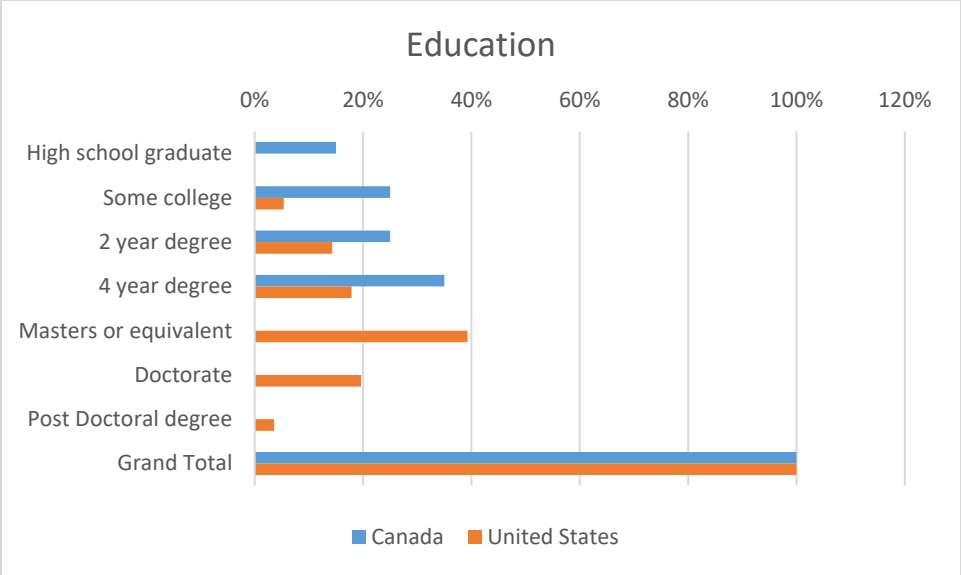

Figure 1. Participant Education

Years of Experience

For professional years of experience, the results were somewhat similar between groups. Among the Canada-based respondents, 45% had 5-10 years of experience. For the U.S.-based responses, two age-ranges represented a significant portion of the overall U.S.-based participants: 1-5 years (29%) and 10-20 years (30%). Figure 2 shows the distribution of responses for years of experience.

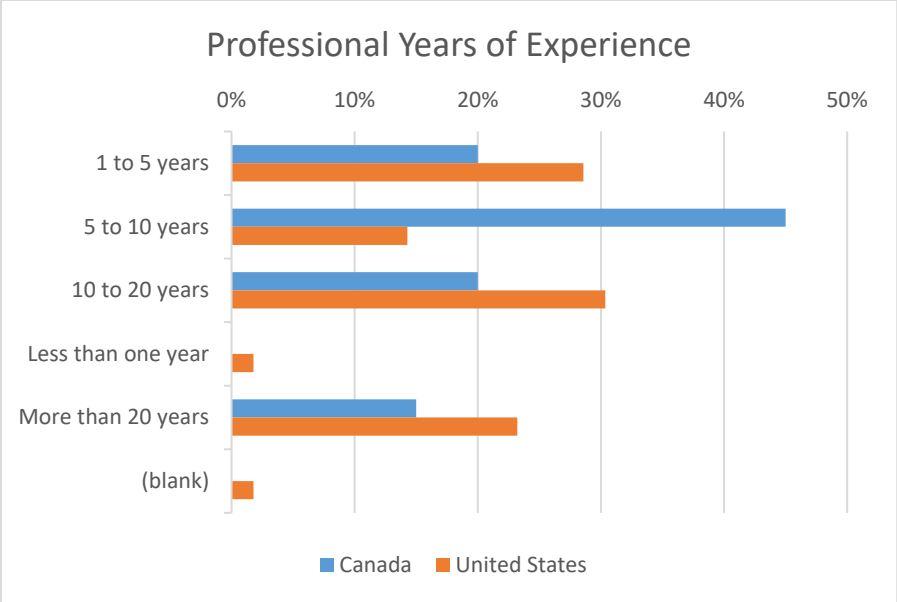

Figure 2. Professional Years of Experience

Profession or Discipline

Participants were asked to identify their profession or discipline. A majority of participants from both groups reported "other." The "other" responses showed a variation in professions and disciplines for both participant groups. The other answers were primarily listed as Education for the U.S. and emergency medical technicians in Canada. Figure 3 shows the distribution of responses for profession or discipline.

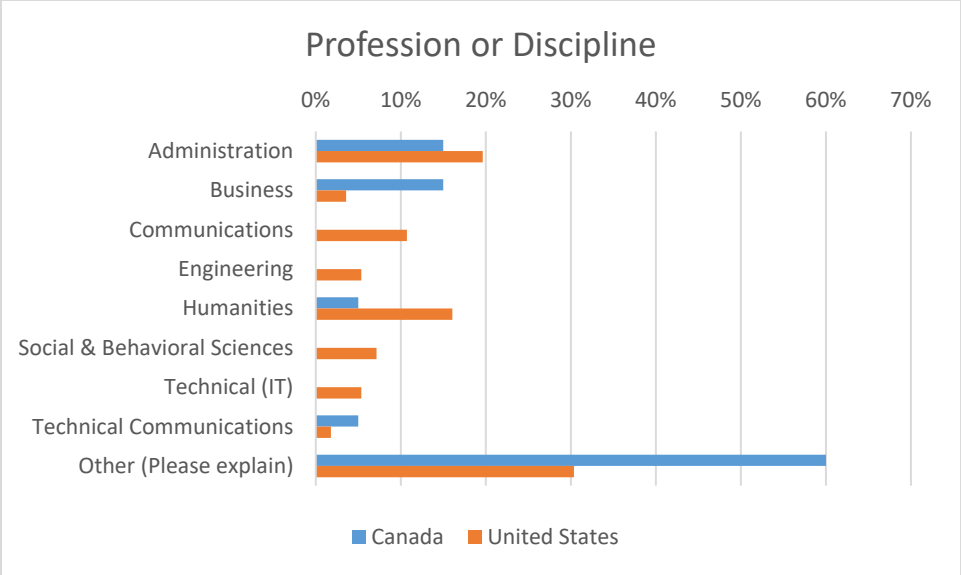

Figure 3. Participant Professions or Disciplines

Language

The vast majority of participants from both the U.S. (93%) and Canada (100%) identified as English language only and not bilingual, see Figure 4.

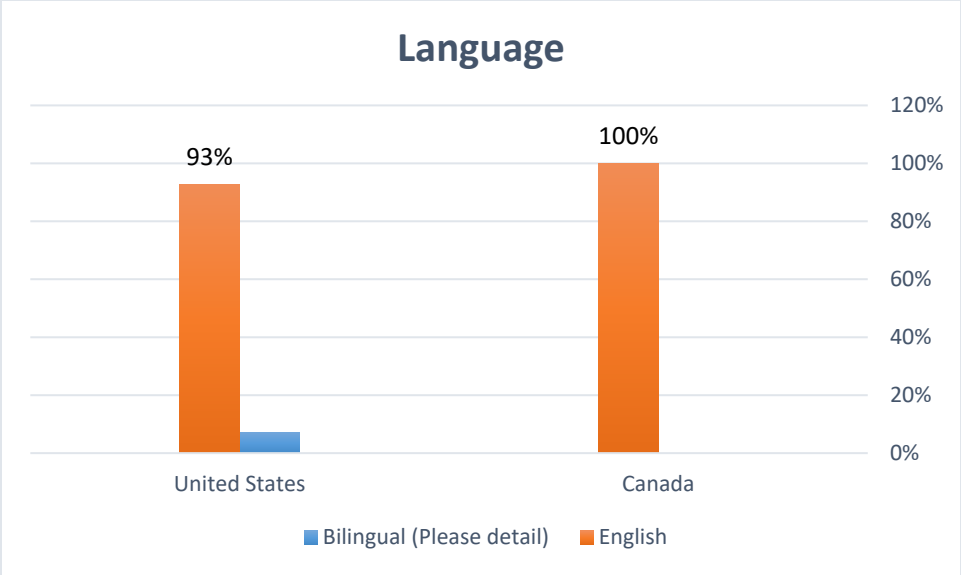

Figure 4. Participant Languages

Ethnicity

The vast majority of participants from both groups (80% for Canada and 75% for the U.S.) were *White*, as shown in Figure 5.

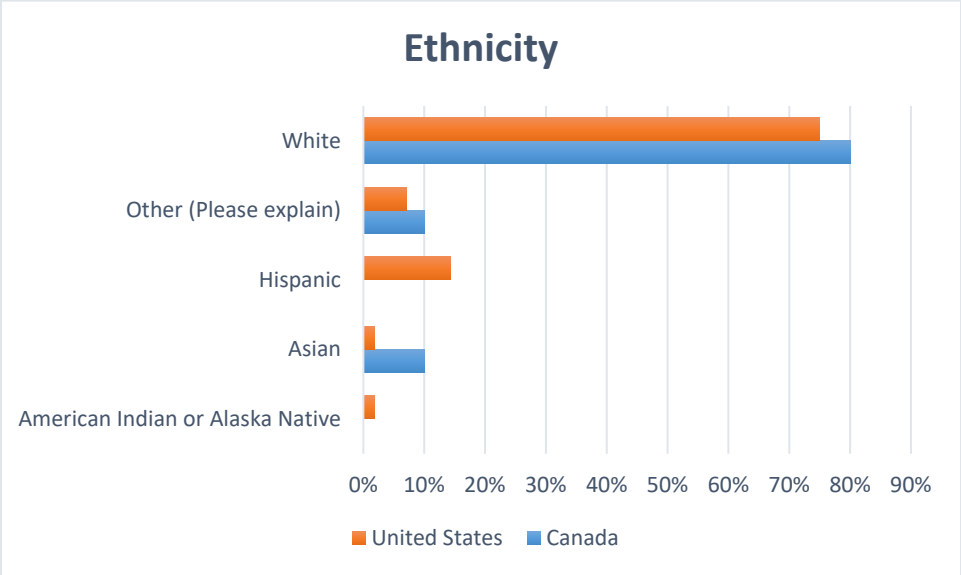

Figure 5. Participant Ethnicities

Age

In comparison, the U.S-based participants were older than Canada-based participants were. Most of the Canada-based respondents—70%—were between 25 and 34 years of age, while only 30% of U.S. respondents were in that age range. However, the U.S. group had a higher distribution of ages. For the total distribution of participants and age ranges by region, see Figure 6.

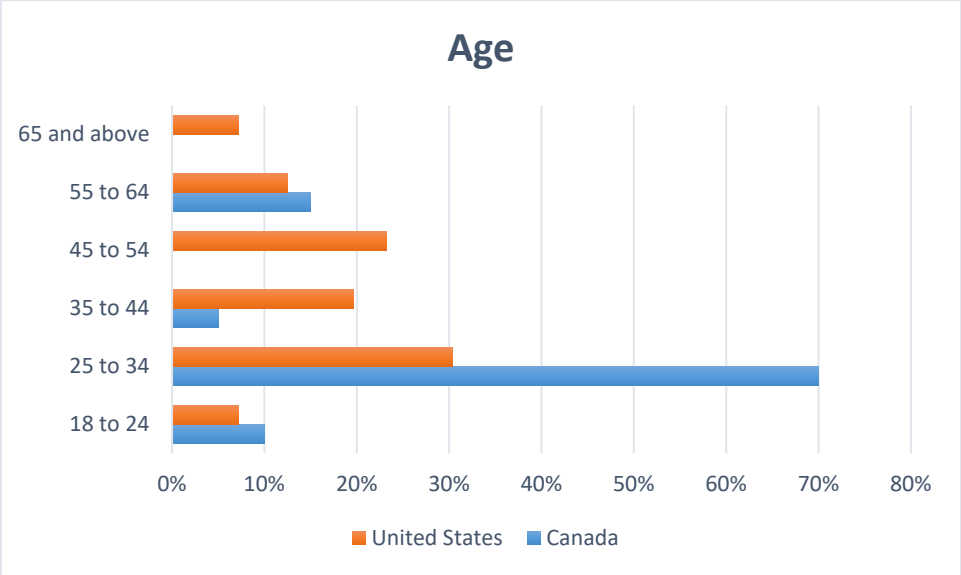

Figure 6. Participant Age Ranges

Document Quality Results

The statistical analysis for the five (5) Agree, Disagree and "I don't know" questions shows that one of the five responses approaches statistical significance (see Figure 7). The Canada-based and U.S.-based participants differed in their perceptions regarding whether the document layout appeared logical.

Fisher's Exact Test for Quality Survey Responses	
Survey Question/Statement	*p-value*
The layout of details appears logical	**0.05**
Information seems trustworthy	0.60
Information about the subject is consistent throughout	0.30
Information appears complete	0.86
Information is clear	0.86
NOTES: Statistical significance is determined by *p-value* <0.05.	

Figure 7. Fisher's Exact Test for Quality Survey Responses

The Fisher's exact test returned a value of $p = 0.05$, which approaches statistical significance, suggesting that the difference between the two groups is probably not due to chance. A comparison of the two groups shows that the Canada-based participants were more likely to favor the sample document; 95% of Canada-based participants agreed that the layout was logical, compared to only 66% of the U.S.-based participants (see Figure 8).

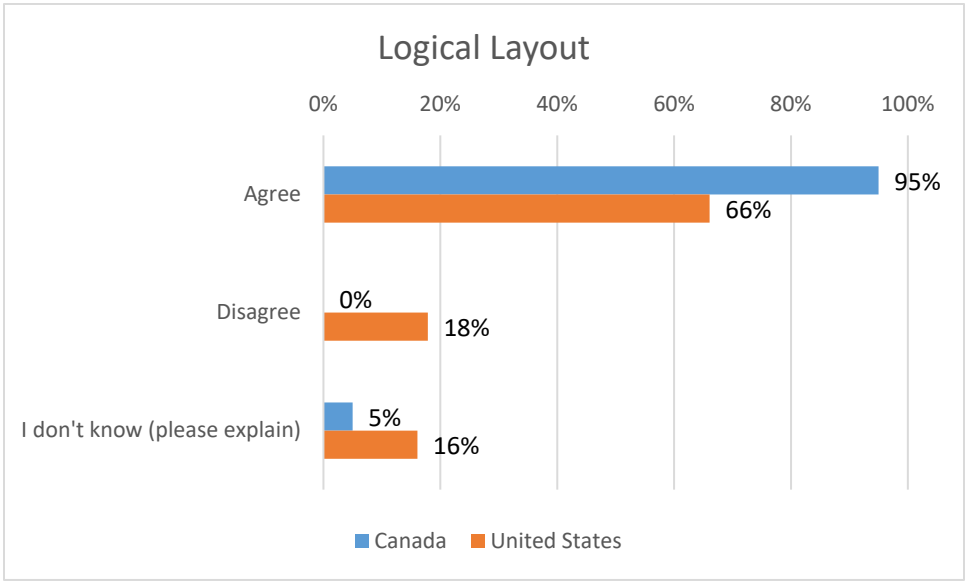

Figure 8. Layout Logic Comparison

The ten Likert-scale questions on the survey were analyzed using the Wilcoxon-Mann-Whitney test. The analysis revealed three questions for which the Canada-based and Us-based responses differed significantly. The three statistically significant results related to language ($p = 0.043$), organization ($p = 0.038$) and amounts of text ($p = 0.009$). These results indicate that the differences between the two groups on these questions are not likely due to chance. See Figure 9 for the results of the Wilcoxon-Mann-Whitney test.

Group Statistics for Likert Items

	Current Location or Region	N	Mean	Std. Deviation	Std. Error Mean	*p*-value
Information appears practical	Canada	20	1.55	.605	.135	0.271
	United States	55	1.76	.666	.090	
The focus of the information is on the meaning	Canada	20	1.85	.988	.221	0.337
	United States	55	2.11	1.012	.137	
Language is easy to understand	Canada	20	1.35	.489	.109	**0.043**
	United States	55	1.91	1.005	.136	
Grammar is correct	Canada	20	1.45	.605	.135	0.373
	United States	54	1.70	.861	.117	
Spelling is correct and consistent	Canada	20	1.35	.489	.109	0.771
	United States	55	1.44	.631	.085	
Capitalization is consistent and appropriate	Canada	20	1.40	.598	.134	0.794
	United States	53	1.45	.637	.088	
Punctuation is consistent and appropriate	Canada	20	1.40	.598	.134	0.384
	United States	53	1.60	.768	.106	
Organization of topics enables quick access	Canada	20	1.55	1.099	.246	**0.038**
	United States	55	2.16	1.244	.168	
Color and imagery in the document is appropriate	Canada	20	1.50	.761	.170	0.490
	United States	52	1.77	1.078	.149	
Amount of text in the document is necessary	Canada	20	1.60	.821	.184	**0.009**
	United States	55	2.47	1.289	.174	

NOTES: Statistical significance is determined by ***p-value* <0.05.**
Language, Organization and Amount of text have statistically significant results.

Figure 9. Group Statistics & Wilcoxon-Mann-Whitney Test for Likert Items

For each of the significant differences, the Canada-based participants responded more favorably to the brochure than did the U.S.-based participants (as shown in the

following figures, see figures 10, 11 and 12). Approximately two-thirds (65%) of Canada-based respondents strongly agreed that the language was easy to understand, as compared to 39% of U.S. respondents (see Figure 10).

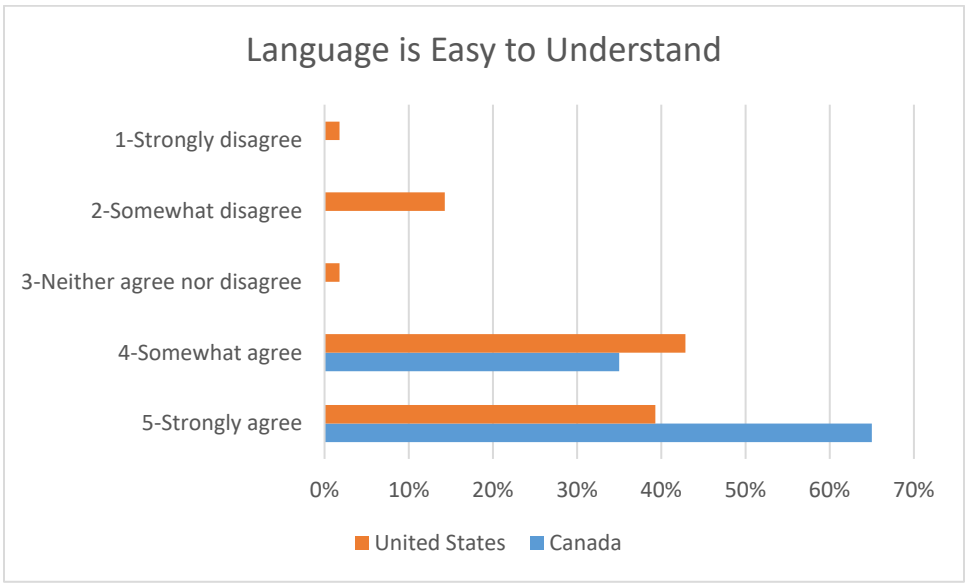

Figure 10. Language is Easy to Understand

Likewise, 70% of Canada-based respondents strongly agree that the organization was effective, compared to 39% of the U.S. respondents (see Figure 11).

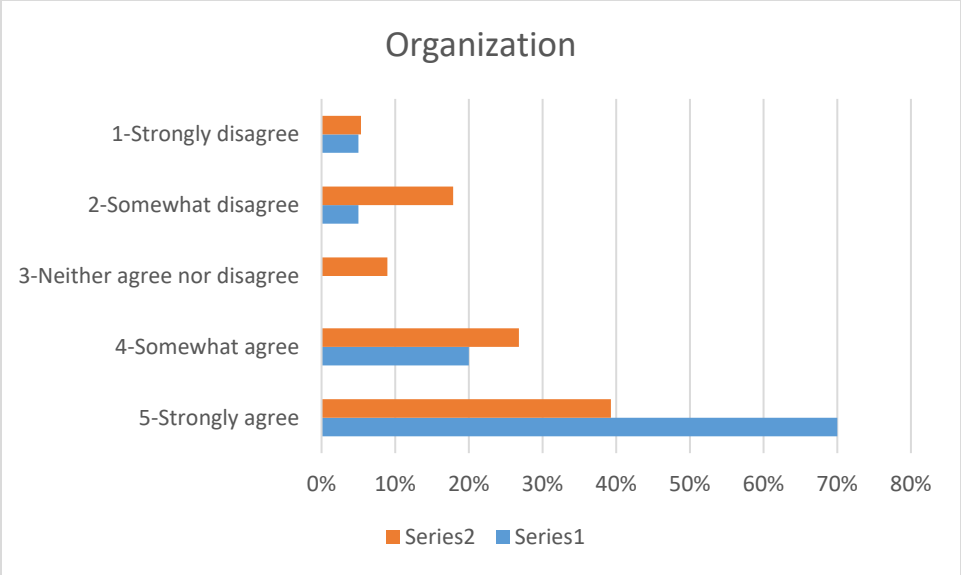

Figure 11. Organization

Similarly, more than half (55%) of the Canada-based respondents strongly agree that the amount of text was effective, compared to the 27% of the U.S. respondents (see Figure 12).

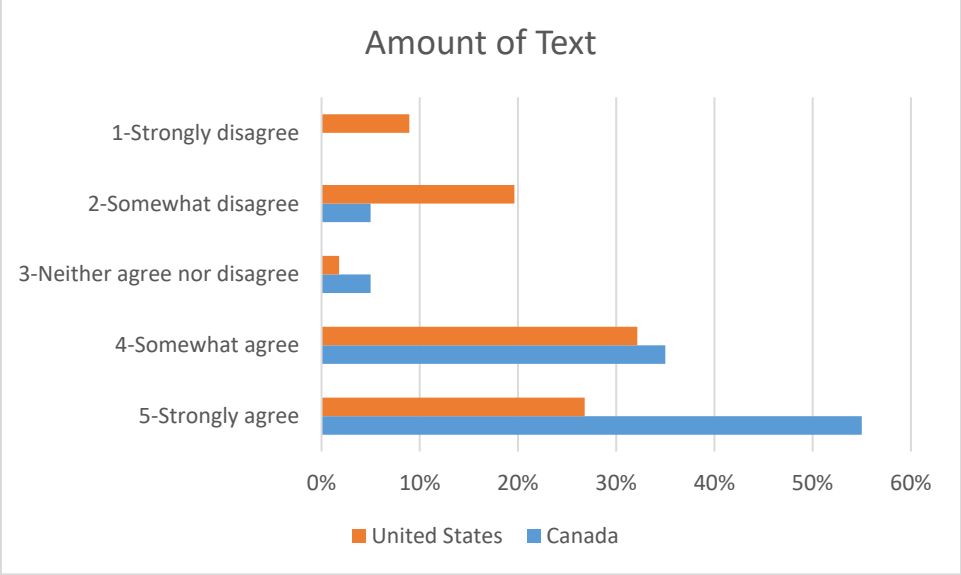

Figure 12. Amounts of Text

The final questions of the survey asked respondents about information found in the sample brochure and each question had three possible response options (yes, no and I don't know). A Fisher's exact test revealed no statistical differences in the responses of Canada-based and U.S.-based participants (see Figure 13).

Fisher's Exact Test for Comprehension Questions	
Survey Question/Statement	*p-value*
Is ambulance service covered?	**0.56**
Was the information on ambulance service easy to find?	0.49
Is optical care covered?	0.32
Was the information on optical care easy to find?	0.67
NOTES: Statistical significance is determined by *p-value* <0.05.	

Figure 13. Fisher's Exact Test for Comprehension Questions

CHAPTER 5. DISCUSSION AND CONCLUSIONS

The goal of this research was to examine user preferences for a culturally specific sample document and answer my research question–How do localization needs or preferences differ between English-speakers in the U.S. and Canada? To answer this question, I identified and compared two cross-cultural groups and conducted a survey using a Canada-based document. Both groups were English-speaking users who are rarely separated in the literature on culture or localization. The research yielded statistically significant results for layout, organization, language, and amounts of text. For each of the relative survey response, the Canada-based group responded more favorably to sample document than did the U.S.-based group.

Statistically Significant Differences between Groups & Contexting

Significant differences between the U.S.-based and Canada-based participant responses concerned language, amounts of text, layout and organization–all of which play a vital role in cultural differences and contexting in communication. In reference to the studies (Hofstede, 1984; Hall, 1976; St. Germaine-Madison, 2009) this research was based on, localization research for U.S. Spanish speakers in the U.S. using Spanish health-related culturally specific samples (St. Germaine-Madison, 2009), and Hall's contexting models (1976), language is a crucial factor for localization and user perceptions of quality. In the U.S., the Canada-based words could seem erroneous, and the reverse could be true (U.S. spellings in Canada could seem wrong) as well. In addition to language, the statistically significant results on amounts of text, layout and organization all relate to Hall's contexting on how much supplemental and background information (like the email versus in-person meeting) is required to relay information

effectively. For the amounts of text or the layout, a document could be more direct in the U.S. with a linear organization and according to timeline whereas in Canada, there may be a need for additional background information in the direct or indirect style of paragraph and text structure. For organization, whole sections might differ in order of importance for a report styled for the U.S. over Canada. Therefore, language and contexting preferences should be a significant consideration in communication design across international borders despite English language similarities. In each question of statistical significance, the Canada-based respondents strongly agreed that the sample document was effective, compared to the U.S. respondents. The statistical tests of those results showed statistically significant differences between the two groups for factors related to contexting--language, amount of text, and organization. First, one of the most impactful challenges of grouping multiple areas of English-speakers is language (spelling). In the U.S., Canada-based spellings can be mistaken as erroneous and lesser quality, if users cannot readily identify the spelling differences as intentional. Second, amounts of text and organization are components Hall (1976) relates to as elements of high and low contexting. A high context culture, according to Hall, would expect more text and different textual organization than a lower context culture. In Hall's contexting scale, the U.S. and Great Britain are near one another on contexting preferences but not the same, and these research results mirror that scale. The U.S.-based participants preferred lower context (lesser amounts of text) in contrast to the Canada-based participants who preferred more background (more amounts of text as illustrated in the sample).

Ultimately, the statistically significant results show that the Canada-based participants responded more favorably to the sample document than did the U.S. participants. The statistically significant results highlight a preference for written communication with user-specific spelling, amounts of text, and organization. These findings expand existing literature and current practice by informing on the preferences of localization and contexting between the U.S. and Canada. Additionally, the study and results propel future research by providing a sample set to expand beyond and compare with larger groups and greater geographical distances.

Research Limitations

Several key limitations in the research design and methods for this study need to be considered while reviewing the results and when discussing possible future research. Some of the most problematic limitations involve the overall sample size, the sample document, and the distribution of the survey. First, the sample size, although adequate for a master's thesis, is not large enough to make evaluations of participant responses based on demographic subgroups. For example, due to the sample size, groupings based on age, experience or education were too small to compare or obtain meaningful results. Additional research into age and experience could help to explore if these are factors influencing localization preferences. A larger data set with broader and more balanced audience demographics could enable further analysis.

Second, only one sample document was used, and that document was Canada-based. Adding a second sample document, one from another English-speaking culture, would allow for a more comprehensive comparison in future research. Furthermore, the document sample was a Canada-based document, as authenticity was necessary, but it

was not an actual localized sample, due to limitations on access and availability. As a result, the text was genuinely designed (by Alberta Government) for a Canada-based audience which means that the U.S. results offer U.S. user perspectives for non-localized communication because the sample was not for the U.S. and created for another region. Future research could accommodate for this limitation by including sample documents with more than one origin including at least one option from the intended outreach region (for example, a U.S. document and a document localized for another area to compare both sets of responses).

Additionally, among Canada-based respondents, 10 of 30 participants stopped the survey following the demographics section. This difference in participants, only for the Canada-based group, could imply that the Canada participants were less invested in the survey outcome. It is possible that a Canada-based University distribution could improve on the participant completion rates for the Canada-based participants since this barrier was not present for the U.S.-based University distribution participants.

Finally, the geographic proximity of the participants is both a success and a limitation. Western Canada is not near Arizona, yet it does border other U.S. English-speaking regions with Washington, Montana and North Dakota states. This close but distant relationship between Western Canada and the U.S. overall makes it a significant first step in localization preference research. One could assume that differences identified in this research study could be far more significant with greater geographical distance. Regions like the U.S., Canada, and Europe or Australia are more likely to differ significantly in written communication preferences since these varied locations share fewer borders and similarities.

Conclusion

The original research goal was to address my original question–how localization preferences differ, using the English language, between the U.S. and Canada. This research has informed my original question. The statistically significant results of this research study can help guide future research on localization and cross-cultural communication strategy. Moreover, this research study addressed existing gaps in the current literature by offering empirical evidence of international data analysis in response to previous critiques and recommendations (Batova, 2010; Cardon, 2008; St. Germaine-Madison, 2006), in a same-language environment. Quantitative analysis, as recommended by St. Germaine-Madison (2009), provided statistically significant results to offer new evaluative perspectives for future localization research. By examining a defined region, not examining a whole country as suggested by Hofstede's (1984) analysis, this study showed that differences in written communication user preferences do exist and are measurable. The research implications have the potential to illuminate intricacies and subtle differences between cultures to improve cross-cultural understanding and communication. By developing awareness, fostering localization practices, and suggesting future research, this study can inform and enhance academic and professional practice.

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APPENDIX A

SURVEY

Block 4

Document Quality Survey

I am a graduate student conducting a research study under the direction of Assistant Professor Tatiana Batova, PhD in the College of Integrative Sciences and Arts at Arizona State University. I am conducting a research study to determine localization needs through user experience research in two different regions (Alberta, Canada and Phoenix, Arizona, United States).

I am inviting your participation, which will involve approximately 10-15 minutes of your time to review a one-page flyer and respond to several questions about the document, your experience with it, and your background. You have the right not to answer any question and to stop participation at any time.

Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. You must be 18 or older to participate in the study.

A $25 gift card will be awarded to one random participant. If you choose to opt-in for the gift card award, please provide your email address following the survey for possible distribution.

If you do chose to participate, it is likely that your survey submission will assist in improving the current knowledge base about localization needs and possibly assist in the creation of future studies with an overall goal of improving language quality and communication across borders. There are no foreseeable risks or discomforts to your participation.

Your responses will be anonymous. The results of this study may be used in reports, presentations, or publications but your name will not be used. If applicable, results will only be shared in the aggregate form.

If you have any questions concerning the research study, please contact the research team: Principal Investigator, Dr. Tatiana Batova at tbatova@asu.edu, or Co-Investigator, Tara O'Brien at tara.obrien@asu.edu).

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU

Office of Research Integrity and Assurance, at (480) 965-6788.

Clicking continue will indicate your consent to participate in this research.

Block 3

Demographics

Field or Occupation

- O Engineering
- O Business
- O Administration
- O Journalism
- O Communications
- O Technical Communications
- O Technical (IT)
- O Humanities
- O Social & Behavioral Sciences
- O Other (Please explain)

Professional – Years of Experience

- O Less than one year
- O 1 to 5 years
- O 5 to 10 years
- O 10 to 20 years
- O More than 20 years

Education – Highest Degree Completed

- O Less than High School
- O High school graduate
- O Some college
- O 2 year degree
- O 4 year degree
- O Masters or equivalent
- O Doctorate
- O Post Doctoral degree

Primary Language

- O English
- O French
- O Spanish
- O Bilingual (Please detail both languages)
- O Other (Please detail)

Ethnic Background

- O White
- O African American
- O American Indian or Alaska Native
- O Asian
- O Native Hawaiian or Pacific Islander
- O Hispanic
- O Other (Please explain)

Current Location or Region

- O Canada

- O United States
- O Other (Please explain)

Age

- O 18 to 24
- O 25 to 34
- O 35 to 44
- O 45 to 54
- O 55 to 64
- O 65 and above

Quality Survey

Take about 2-3 minutes to read, skim and familiarize yourself with the Health Benefits Brochure, then answer the following questions. Please respond as truthfully and accurately as possible but remember that there are no right or wrong answers.

The layout of details appears logical

- O Agree
- O Disagree
- O I don't know (please explain)

The information seems trustworthy

- O Agree
- O Disagree
- O I don't know (please explain)

The information about the subject is consistent throughout

- Agree
- Disagree
- I don't know (please explain)

The information appears complete

- Agree
- Disagree
- I don't know (please explain)

The information is clear

- Agree
- Disagree
- I don't know (please explain)

The information appears practical

Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
O	O	O	O	O

The focus of the information is on the meaning

Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
O	O	O	O	O

The language is easy to understand

Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
O	O	O	O	O

The grammar is correct

Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
O	O	O	O	O

Spelling is correct and consistent

Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
O	O	O	O	O

Capitalization is consistent and appropriate

Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
O	O	O	O	O

Punctuation is consistent and appropriate

Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
O	O	O	O	O

Organization of topics enables quick access

Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
O	O	O	O	O

The color and imagery in the document is appropriate

Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
O	O	O	O	O

The amount of text in the document is necessary

Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
O	O	O	O	O

Review & Respond

Answer the following questions based on what you remember from the Health Benefits Brochure. You can consult the brochure any time.

Is ambulance service covered?

- Yes
- No
- I don't know (please explain)

Was the information on ambulance service easy to find?

- Yes
- No
- I don't know (please explain)

Is optical care covered?

- Yes
- No
- I don't know (please explain)

Was the information on optical care easy to find?

- Yes
- No

I don't know (please explain)

What are the main points of the brochure?

This concludes the survey. Thank you for your time and consideration. If you would like to participate in the $25 gift card giveaway (awarded to one random participant), please leave your email address.

Email address for gift card incentive - random selection ($25)

Report Abuse

Powered by Qualtrics

APPENDIX B

SAMPLE DOCUMENT

Contact Us:

For more information on Health Benefit Programs for Albertans with low income you can contact the following offices or go to the websites listed below:

Income Support or AISH Health Benefits

Contact your worker at the office where your file is held.

Learner Health Benefits

Alberta Human Services
Student Funding Contact Centre
PO Box 28000, STN Main
Edmonton, AB T5J 4R4

Phone: Toll-free 1-800-222-6485
or 780-427-3722 in Edmonton

Fax: Toll-free 310-0000, then enter 780-415-9947
or 780-415-9947 in Edmonton

Alberta Adult Health Benefit and Alberta Child Health Benefit

Alberta Human Services
Health Benefits Contact Centre
PO Box 2222
Edmonton, AB T5J 5H4

Phone: Toll-free 1-877-469-5437
or 780-427-6848 in Edmonton

Fax: Toll-free 310-0000, then enter 780-415-8386,
or 780-415-8386 in Edmonton

Online Policies on Health Benefits and the Health Benefits Exception Committee
employment.alberta.ca/hb-policy

General info on these Health Benefits programs
employment.alberta.ca/hb

Alberta Government

AEHB 1634 (2015/07)

Health Benefits Exception Committee

What does the Exception Committee do?

- This committee provides a fair review of requests for health benefit exceptions and ensures Albertans with low income who have unique medical needs can access the health supports they need.
- If you need a health benefit not covered on the Health Benefits Card, you can request a review by the Health Benefits Exception Committee.
- The Health Benefits Exception Committee will review requests for drugs, optical, dental, ambulance services and diabetic supplies that are not covered on your Health Benefits Card.
- If you want to submit an exception request refer to the Contact Us section of the brochure for the office to contact.

How do I request a review?

- Obtain a Request for Review of Decision form from your worker or from our website **employment.alberta.ca/hb-review**
- Complete all sections of the form explaining what health benefit you need, why and who will provide the health benefit.
- Attach any information related to your request that your health care provider can provide.
- Submit the completed form to the appropriate office listed in the Contact Us section of this brochure. This office can also provide additional information and answer any questions you may have. If you need assistance filling out the form, please ask.

What happens next?

- Your doctor must complete all sections of a Request for Drugs and Nutritional Products form if you need medication or over-the-counter products. This form is also available from your worker or on our website **employment.alberta.ca/hb-drugs.** Attach the completed form when you submit your request to your worker.
- The office handling your request will review all information you submit, answer your questions, and submit your documents to the Health Benefits Exception Committee.
- Each case submitted to the Health Benefits Exception Committee is reviewed and researched on an individual basis.
- Staff working for the committee may contact your medical practitioners if more information is needed.
- The committee makes decisions based on health benefits policy and the information you submit to support your request.
- The committee's written decision is mailed to you and includes the reasons for the decision.

Health Benefits

Eligible individuals and families with limited incomes can access free health benefits through several government programs.

Knowing your family's health is cared for will bring you peace of mind.

For more detailed information please go to the Contact Us section on the back of this brochure.

Alberta Government

How do I know if I qualify for a Health Benefits Card?

Income Support and Assured Income for the Severely Handicapped (AISH)

If you are receiving Income Support (including Learners) or AISH you will receive a Health Benefits Card that provides health benefits coverage for you and your family.

Alberta Adult Health Benefit

You and your family may qualify for a Health Benefits Card, under the Alberta Adult Health Benefit program, if:

- You have high ongoing prescription drug needs, and limited income.
- You are pregnant and have limited income.
- You leave Income Support (Expected to Work, Barriers to Full Employment) and you have income from employment, self-employment, or the Canada Pension Plan Disability program.
- You leave the AISH program and you have income from employment, self-employment, or the Canada Pension Plan Disability program.

Alberta Child Health Benefit

Children in families with limited income can receive coverage under the Alberta Child Health Benefit program. Families qualify based on income.

The following chart provides income thresholds for the Alberta Adult Health Benefit and the Alberta Child Health Benefit Programs.

Family Type	Maximum Income
Single Individual	$16,580
Single Parent with 1 Child	$26,023
Single Parent with 2 Children	$31,010
Single Parent with 3 Children	$36,325
Single Parent with 4 Children*	$41,957
Couple with no Children	$23,212
Couple with 1 Child	$31,237
Couple with 2 Children	$36,634
Couple with 3 Children	$41,594
Couple with 4 Children*	$46,932

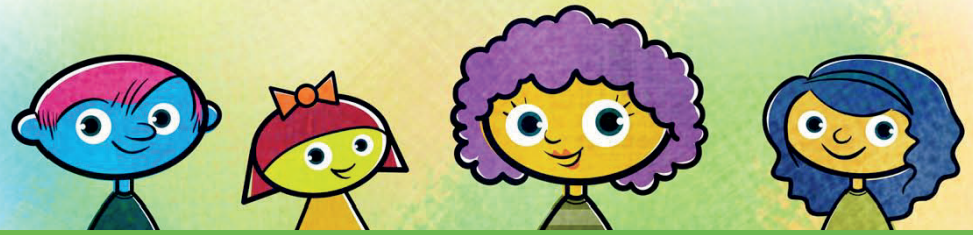
*Add $4,973.00 for each additional child

How do I figure out my income?

You can calculate your income by looking at your last income tax return.

- Look at Line 236 to find out your net income
- Add any child support you receive, which is on line 156.
- Subtract the amount you were taxed, which is on Line 128.

The amount left is your income. If you have trouble calculating your income, call us.



What does the Health Benefits Card cover?

Prescription Drugs and Nutritional Products

- Many, but not all prescription drugs are paid for. Some over-the-counter products, such as prenatal vitamins and children's vitamins are also covered. Your pharmacist has a list of what is free with the Health Benefits Card.

Optical Care

- Adults receive a free eye exam and eyeglasses every 24 months if needed.
- Children receive free eye glasses every 12 months if needed (their annual eye exams are covered by Alberta Health).

Dental Care

- Basic services such as extractions and fillings are covered, in order to alleviate pain and infection. Fluoride is covered for children.
- In some cases additional services such as cleaning and annual examinations are also covered. Ask your dentist about your coverage.

Ambulance Services

- Emergency ambulance trips to the nearest hospital are covered.

Diabetic Supplies

- Diabetic supplies such as injection supplies, testing strips, lancets and penlets are covered.

How do I use the Health Benefits Card?

Whether you fill a prescription at a pharmacy, have an eye exam, request eyeglasses or have dental work done, you must always present your Health Benefits Card. That way the health benefit provider can tell you if the service you need is covered by the card.

For example, if a prescription you need is covered by the Health Benefits Card, the pharmacist will provide it to you free of charge. The pharmacist then submits a claim to Alberta Blue Cross, and they pay the pharmacist on behalf of our department.

The Drug Benefit Lists and the Agreements that our department has with optometrists, opticians, dentists and denturists will cover most of the health benefits that you and your family need.

Other Health Plans

If your family has health benefits coverage through another health plan or insurance, you must use that plan first. The Health Benefits Card can cover your remaining costs. Talk to your dentist, optician or pharmacist about how this works.

IMPORTANT: Always present your Health Benefits Card before you receive the service. If the service is covered by the card then it is provided free of charge. If the service is not covered then you should ask the health benefit provider or your worker about alternatives.

On the other side of this brochure, you will find information about the Health Benefits Exception Committee. This committee meets weekly and reviews requests for unique needs that are not covered by the Health Benefits Card.

APPENDIX C

IRB APPROVAL

ASU Knowledge Enterprise Development

EXEMPTION GRANTED

Tatiana Batova
CISA: Polytechnic Humanities, Social Sciences and Technical Communication
-
Tatiana.Batova@asu.edu

Dear Tatiana Batova:

On 5/11/2017 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Localization User Experience Research In the United States and Canada
Investigator:	Tatiana Batova
IRB ID:	STUDY00006231
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Consent Form, Category: Consent Form; • Sample Document, Category: Resource list; • Quality Survey, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Recruitment, Category: Recruitment Materials; • Protocol, Category: IRB Protocol; • Demographics Survey, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 5/11/2017.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Tara O'Brien
Tara O'Brien