# LANGUAGE USE IN "MENSAJES DE TEXTO" WITH STUDENTS AT UPRM 

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A thesis submitted in partial fulfillment of the requirements for the degree of
MASTER OF ARTS
IN
ENGLISH EDUCATION

UNIVERSITY OF PUERTO RICO
MAYAGÜEZ CAMPUS
2011
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#### Abstract

This study was designed to explore: 1) What language choices are being made by students at the University of Puerto Rico Mayaguez when they are text messaging? 2) What are the differences in language use to text message by gender and proficiency level at UPRM? 3) What is the relationship between language use and domain choices made by students at UPRM to text messaging? A self reported questionnaire was administered to 74 participants. Although both English and Spanish were used simultaneously, Spanish had an overwhelming majority in regards to words used in their text messages. Both male and female displayed use of English within their text messages, but males from private schools used the varieties which required more train of thought such as: code switching and text-talk, while women from public schools used more stock phrases which is a variety that is not so challenging. Both languages are used in text messages and in domains of students, but the domain of "home" continues to be influenced heavily by Spanish. An examination of 502 text messages in terms of language use, constraints and attitudes showed the results compared to Zentella (1997), Carroll (2008), Al-Khatib and Sabbah (2008) and Grellhesl (2010).


## RESUMEN

Este estudio fue diseñado para investigar: 1) Que categorías de lenguaje se estaban empleando en los mensajes de texto de los estudiantes de la UPRM, 2) Que diferencias hay entre género y nivel de inglés con los estudiantes y sus mensajes de texto, 3) Que relación hay entre uso de lenguaje y los distintos ambientes del diario vivir escogidos por los estudiantes de UPRM y sus mensajes de texto. Se administró un cuestionario sobre el uso del lenguaje a 74 participantes. Aunque ambos lenguajes tanto inglés y español fueron utilizados simultáneamente, el español abarcaba la gran mayoría respecto a la cantidad de palabras usadas en los mensajes de texto. Ambos participantes masculino y femenino usaron inglés en sus mensajes, pero varones de escuela privada usaron una variedad que requería mas pensamiento crítico tal como: "code switching" y "text-talk", mientras mujeres de escuela pública utilizaron "stock phrases", que es una variedad que no presenta gran reto. Ambos idiomas son usados en mensajes de texto y ambientes donde regulan los estudiantes, pero el ambiente del hogar continúa siendo mayormente influenciado por el español. Se examinaron 502 mensajes de texto respecto al uso del lenguaje, restricciones y tendencias y estas coincidieron con descripciones previas (Zentella (1997), Carroll (2008), Al-Khatib and Sabbah (2008) and Grellhesl (2010).

## DEDICATION

This thesis is dedicated to my mother Nitzi A. Santago and her determination to make sure I got to college and that I strived each and every day for a better life. To my uncle, grandmother, sister, cousin and little brother. Thank you for your accompanying me through this journey, it would have been much more difficult without your unconditional love and support. Even when I made drastic changes in my life you stood by my side and advised me the best way you could and for that I will be forever grateful.

To all my colleagues and friends inside and outside, in some way or manner you have been a part of my life and helped me achieve all my goals through out my undergraduate and graduate semesters. Thanks for all those text messages that inspired my topic and helped me get to where I am today. You drove me

To my students at UPRM and WALKS, thank you for your concerns and help through out the process. May all your dreams and wishes come true.

## ACKNOWLEDGMENTS

Dr. Kevin Carroll has been the ideal supervisor. Your sage guidance, constructive criticism and unwearied confidence in me have made this more than just a process of writing a thesis. You have made this commitment an experience that will fortify and pave the way for my future encounter with students and colleagues. Dr. Carroll, Kevin, KC, and boss; all of these have been names I have used to address you, but now I can add life long friend.

Dr. Rosita Rivera has been the ideal reader/supervisor. Even though you were not the supervisor, the way you helped and guided my project, made me feel like one of your own. Your knowledge is something out of this world and attention to detail is invigorating.

Dr. Shannon Bischoff, if it were not for you, I would not have had a thesis topic. That undergraduate seminar class inspired me to look at language in a different aspect that few had delved into before. Even though you were at Fort Wayne, you still provided me with feedback and guidance with academic and non-academic endeavors and I thank you for all that support.

Many professors at the UPRM have been a part of the process in a direct and indirect way: Jose Irizarry, Elizabeth Dayton, Jocelyn Géliga, Nancy Vicente, Ellen Pratt, Catherine Mazak, Rosa Román, Nevin Leder, Catherine Fleck, Raymond Knight, Billy Woodall, Ricia Chansky, Eric Lamore, Linda Rodriguez, Nicholas Haydock, Gayle Griggs, Betsy Morales, Edithdaly Martell, Catherine Jorge, Jose Vega and Mariangie Caraballo. Thank you for your support both in academics and teaching. I have learned a little bit from each and every one of you.

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## CHAPTER ONE: INTRODUCTION

"I'm working en un trabajo para la clase de hoy. I can't sorry". Sent by Juana Rosario at 1:58:59 pm

This study examining text messages among university students in Puerto Rico, came as a result of my interest in the use of language in computer-mediated communication (CMC), such as Windows Live Messenger, Facebook, My Space and Twitter. As a former linguistics major and user of multiple forms of technology, it is unclear the relationship that co-exists between language and technology. While observing language use within several types of CMC, I have noticed that members in my social group send me code switched embedded text messages, similar to the one at the top of this page. After observing the frequency of these occurrences, I developed an interest in studying the differences within language use as it occurs in mobile text messages and how this use is affected by sociolinguistic factors.

This research will serve to better understand the relationship between language and technology. Furthermore, it will help to examine language use and text messaging in the Puerto Rican context and how such use is or is not a part of Puerto Rican culture, language use and how the three are interconnected. This study will also expand on existing literature on text messaging as a social phenomenon. Short message service (SMS), as defined within the GSM digital mobile phone standard, is a service which enables its users to send short text messages from one mobile phone to another, or to a mobile phone via the Internet (Hard af Segerstad 2002: 187). Communication through SMS service is one mode of communication referred to as computer mediated communication (CMC). Although text messaging does have its benefits in saving time
and does not require being online, which has made text messaging one of the top alternatives for communicating, which has not sat well with certain linguists. The act of texting has been considered to be wrecking language by some linguists. Humphrys (2007) describes this as, "vandals who are doing to our language what Genghis Khan did to his neighbors 800 years ago. They are destroying it: pillaging our punctuation; savaging our sentences; raping our vocabulary. And they must be stopped." Although the view of text messaging language may be portrayed as one which is uneducated and unorthodox, the fact is that technology is influencing language, which is best explained by Carroll (2008), "throughout the industrialized world, technology, and specifically the Internet, has overwhelmingly changed the way we think and talk about language" (p. 98). Text messages have changed the way language is portrayed in many linguistic facets such as morphology, phonology and syntax. Although text messages may be seen as a negative to some grammar critics, it is not the only element, which is being categorized as endangering or affecting language. Incorporating fragments or phrases of other languages are also considered to be a type of corruption of language. One such type of language use that has been seen in this light is code switching.

Code switching is characteristic of many parts of the world where two or more speech communities reside in close contact, but often it is misunderstood (Zentella, 2007). Zentella's analysis of code switching within a Puerto Rican community associated language and identity and how these are related within minority communities. Nevertheless, the term "code switching" is broadly defined, discussed, and used throughout a variety of related fields in linguistics and applied linguistics. Code switching is studied from many perspectives and has been viewed through many different
lenses within the study of language. Nevertheless, for the purpose of this study I will use the common definition established by Poplack (1982), which is "the alternation of two languages within a single discourse, sentence, or constituent" (p. 231). Like Poplack Zentella, and many others, I will view code switching as a natural phenomenon that occurs in multilingual contexts.

## Research Questions

This study uses a sociolinguistic perspective to investigate language choice in mobile text messages among University of Puerto Rico students. For this reason, the study addresses the following questions:

1. What language choices are being made by students at the University of Puerto Rico when they are text messaging?
2. What are the differences in language use to text message by gender and proficiency level at UPRM?
3. What is the relationship between language use and domain choices made by students at UPRM to text messaging?

After examining language choice, it was important to examine sociolinguistic, educational, and technological factors, which influence potential language use. Thus, in addition to the previously stated research questions, I examined at the sociolinguistic aspects of text messaging which were involved in the communicative function of language use. The subsets of questions pertaining to sociolinguistic elements within this study were the following: What relationship did the recipient of the text message have
with the person sending the text message? These questions sought to provide to whom participants send the majority of their text messages and their relationship in terms of being friends, family, co-workers or significant other such as a boyfriend or girlfriend.

Finally, it was imperative to analyze the role of gender and how it might affect the outcome of language to a degree where there is a noticeable difference between traditional gender roles that send text messages. Males and Females are stereotyped and categorized according to their language and this study provides a look into the role of gender and how this reflects their specific use of language. In order to compare gender dynamics regarding code switching and possible language choice, the following questions were devised: What language choices are being made to members of the same sex? This question analyzes whether or not the stereotypical type of language is being used according to gender.

Within the scope of this study, there are several objectives, which will be attained simultaneously as the study progresses. The objectives are related to the previous stated research questions in order to facilitate analysis. Thus the objectives for this study are:

- Identify the choices of keyboard configuration or style (Qwerty or letter/number form)
- Analyze the language used in text messages
- Discern categories which pertain to language use
- Determine amount of characters used in text messages
- Establish the difference in length of characters between male and female participants
- Identify the use and distribution of code choice by sex. (Who is using Spanish and English more, less or equal).


## Language use and texting

Language use is in constant flux and is changing as we speak and experts in the field must re-evaluate their ideas about language use as new means of communication develop as a result of new technology. Technology is present in all of our surroundings and although some members of society have elected against adapting to new technology for several personal reasons. Instead of arguing my intention for society, I am going to look at texting and demonstrate how an understanding of texting can be exploited for pedagogical purposes

Ling and Baron (2007) reported that teens are responsible for popularizing the mainstream use of text messaging. Corpus linguists may analyze the body of the text messages and use the corpus to unravel text language and how this is present in bilingual language contexts. They could also help specialists in technology to possibly develop better text messaging features to create easier access to those who are technologically illiterate.

This research on the use of language in text messages has multiple implications. In this study I provide a perspective on how language is affected by society's daily use and conventions as demonstrated in the use of text messages. In terms of pervious related research there are very few studies on the merging of both text messaging and the language used. For instance code switching, which is a language phenomenon, is occurring in numerous media forms and it will continue to be a nuisance for those who see language as a pure entity. Therefore it is the goal of this study to work to document
the different language that it used in this emerging area of research where technology and language depend on each other.

This study also has pedagogical implications, which if used in a creative and structured manner can be developed into an excellent tool for enhancing vocabulary or lexical items such as idioms, colloquial language syntax and morphology. The constant exchange of vocabulary serves for multiple functions within communication and could possibly be developed to signal differences between different types of language use, such as text-talk, code switching and borrowing. Crystal (2004) suggests that there is more writing being done during this generation than in any other era because of the extensive use of text messages around the world. In addition, it seems that texting is becoming a new medium for communication, which is substituting traditional writing and might lead to a new strategy to engage younger generations to indulge in this non-traditional style and in a certain way promote different styles of writing.

When compared to older members of society, today's youth are the ones using more social media and electronic communication (Carroll, 2008). As a result of younger generations having a better knowledge of computers and the Internet, it is no surprise that the average MySpace.com user in Puerto Rico is under 25 years of age. Carroll's (2008) study on MySpace.com portrays the age range used within the Puerto Rican community that uses the Internet After counting only the first six years (age 18-23), it was apparent that the majority of Puerto Rican MySpace.com users are part of the "technology generation," who more than likely have grown up with computers or at least have had access to them. There is strong support that today's youth are the instigators of language change and at least now, are the primary users of text-messaging and other forms of

CMC. With new forms of technology being popularized by today's youth it was important to have participants who exemplified this trend. This research focuses on native speakers of Spanish who belong to different proficiency levels and how they differ in their language use with Spanish and English. The following section will depict the statement of the research problem.

## Statement of the Research Problem

Due to the fact that text messaging is a recent language medium, little academic inquiry has been dedicated to its use in terms of language. There is little research on text messaging and the social and cultural linguistic processes that occur when writing or thinking about texting. The studies that have been conducted have either focused on dynamics of mobile text messaging or code switching in speech or written language. Some examples are: Al-Khatib and Sabbah (2008) study on code switching within universities in Jordan. Van Gass (2008) analyzes code switching within Internet relay chats. Simililarly, but not necessarily examining text messaging, Zentella's (1997) study, which examined linguistic practices of a community of Puerto Ricans in New York, found that participants used Spanglish within different various different domains of their daily lives. Finally, Carroll's (2008) study, which delves into Puerto Ricans and their language used and displayed on MySpace.com finds that there are a variety of deviants from standard Spanish when Puerto Ricans express themselves in social media which, including the use of net speak, code switching and many stock phrases. These studies will be discussed in more detail in the second chapter.

The topic of mobile text messages faces many headwinds as much of the population views it as sub-par language use. Such descriptions of such language use
were described in Sutherland (2002) to be, "bleak, bald, sad shorthand. Drab shrink talk ... Linguistically its all pig's ear ... it masks dyslexia, poor spelling and mental laziness. Texting is penmanship for illiterates". Because of negative descriptions such as the one presented, many language purists and professionals who work with writing do not see texting as a creative way of writing.

Now that I have provided a brief summary of the study and its various facets, Chapter Two will describe in detail the various studies that inform this research. The third chapter will provide present the methodology used in the study and present the demographic information of the participants. The fourth chapter will provide an analysis of the data within a number of tables identifying the domains of language use, how many texts have been sent and providing examples of the various different types of text messages. The fifth chapter will provide a discussion relating the use of text messaging found in chapter four to that of other studies related to Puerto Rican language use and the use of text messaging in other studies published around the world. Finally, the fifth chapter will summarize the study and provide the limitations and some suggestions for future research.

## CHAPTER TWO: REVIEW OF LITERATURE

Despite the relatively recent trend in text messaging, this chapter provides a review of literature of studies that are related to language use and the use of language in technology. A defining characteristic regarding the selection of a particular design took into consideration that the participants of this study acquired English as a second language; therefore much of this study uses theories based on second language acquisition (SLA) theoretical frameworks and technology within an ESL context. Another factor that was taken into consideration was the popularity and amount of use of mobile phone technology by people between the ages of $18-24$, which will be supported by Linguistics as a communicative activity. Based on the constant change in technology and the potential repercussions on the use of language, in this chapter, I will also examine existing research that discusses language use in text messages. Therefore, in this chapter I will (1) introduce the use of linguistics as a communicative activity (2) discuss the habits, trends and use of texting, (3) review pertinent literature on text messaging and (4) explain the definition of domains of language use.

In order to better understand language use and texting it is necessary to understand the role that language learning theories play when individuals use text messages to communicate. Through the $20^{\text {th }}$ century there have been several approaches that have been developed and used for research purposes, which usually focus on language acquisition involving the triggering of genetically available a priori principles of grammar (e.g. Chomsky, 2000; Pinker, 1991). Although these models did serve as a foundation main proponent of this approach, Noam Chomsky, has abandoned the principles and parameters approach all together such research is now even more controversial. Furthermore, it is imperative to approach language use and text messaging
research from a perspective, which addresses the contributions of culture and history with a focal point on natural, social and mental realities, which are changing each day. The theoretical paradigm that employs these characteristics is the approach of linguistics of communicative activity (LCA).

LCA is a recently developed framework rooted in, that attempts to augment, the Vygotskian cultural-history tradition. The LCA paradigm sets up language as an object and reinvents language as activity, where the term activity describes a specific form of human societal existence that consists of purposeful changes to, and transformations of, natural, social and mental realities (Davydov, 1999). According to Lantolf and Thorne (2006) "The third generation of Vygotskian psycholinguistics, to which our efforts to develop a LCA framework contributes, investigates the linguistic means people deploy in the service of specific real-world activity, whether oriented toward the negotiation of collective action or to regulate one's own cognitive activity" (p.177). This theory will not only serve as a lens regarding language as an activity, but also will also negotiate meaning and reason as to why this is occurring within the UPRM community. It is of great importance to understand previous studies, which have incorporated some approaches towards language choice and text messages.

The main purpose of this project is to examine language choice and sociolinguistic factors of language use in mobile text messages as used by a group of students at the University of Puerto Rico in Mayaguez (UPRM). Sociolinguistics studies the relationship between language and society. "Examining the way people use language in different social contexts provides a wealth of information about the way language works, as well as about the social relationships in a community, and the way people
signal aspects of their social identity through their language" (Holmes, 1990). Therefore, I define language choice as: the utterance produced or written according to the users' setting. Nowadays, with the emergence of new techniques of communication such as the Internet and mobile phones, studies of code switching have shifted their attention to investigate how the process occurs through these new media of communication (e.g., Benitze, 2008; Castells et. al, 2006; Sue, 2003; Paolillo, 1996; Baron, 2000; Durham, 2003; Kung, 2004). Although my study had many elements worth exploring, for the purpose of this study I focused on three components for the purposes of data collection. First, it was necessary to explore the frequency of English-Spanish or any other language use within the corpus of text messages. The second component was to analyze the sociolinguistic components that might have an effect on the language choices being made users of text messages. Within the data, numerous sociolinguistic factors are present, but for the purpose of this study I paid specific attention on the recipient of the text message (family, friend or acquaintance), and the type of language that was being used in the communication itself. Finally, the analysis of gender and the differences within the corpus of text messages and how gender might be a factor for certain language choices is also an area of analysis as the amount of text messages and the type of language used different between men and women on the island. Other questions might were attained and served as a guide for the completion of this study, but the main focal point was language choice within text messages and the sociolinguistic and gender factors that contribute to possible code switching within mobile text messages.

The following section presents a brief history of text messaging. It also provides numerous definitions that have been attributed to the term language use and which
definitions are most pertinent to this study. Although there are few studies published on the use of mobile phone language within bilingual communities, there are several studies, which have helped to contribute to a better analysis of the study presented here. Furthermore, a synopsis of relevant studies that have focused or are relevant to code switching such as, computer mediated communication (CMC), bilingualism, and identity and presented

## Computer mediated communication, bilingualism, and identity

Previous studies have looked at different sociolinguistic aspects of text messaging, and yet little work has been done on mobile phones and code switching, especially when used for text messaging (Al-Khatib \& Sabbah, 2008). According to Crystal (2001) text messaging has been difficult to categorize, since many do not consider it written or spoken language. Crystal suggests that CMC is more than just a hybrid of speech and writing. He assumes that although CMC displays properties of both mediums, in the sense that it holds features that neither one of the two more traditional mediums have. Crystal also raises the point that it must be seen as a new type of communication and he calls it a "third medium." While the language of text messages is similar to CMC and is obviously influenced and does a great deal of influencing, it is unique in that it requires at least one phone and is limited to the keys on a phone and one hundred and sixty characters. Thus, it is not clear if text messaging is indeed a unique "third medium" or even a fourth medium, or whether it is a sub category of what Crystal is defining as net speak, a totally unique form of communication that has different characteristics from traditional communication that is either spoken or written (Crystal, 2001).

Despite a clear category for the specific category text messaging, it is safe to say that non- verbal communication such as text messaging has increased within the past twenty years as technology becomes more accessible to the general public. Because mobile phone text rates were considerably lower outside of the U.S., they first gained widespread popularity in Europe and Asia because of the cheap and efficient manner of communicating. The trend has more recently increased with increased use of the mobile phone in the U.S. Within a span of a little over a decade, from 1991 to 2003, the mobile telephone has moved from being the technology for a privileged few to essentially a mainstream technology (Castelles et al., 2006). According to a Yahoo news article:

The number of text messages sent in a single month in the United States increased more than 52 times in the six years since 2003, data compiled by the Census Bureau. The number of abbreviated messages tapped out on US mobile phones and handheld devices in the month of December more than doubled almost every year since 2003, when 2.1 billion text messages were sent. That grew to 4.7 billion for the same month the following year, 9.8 billion in 2005, and 18.7 billion the next year, before a steep increase to 48.1 billion rapid-fire thumbtyped messages in December 2007. In December 2008, the number of text messages more than doubled again, to 110.4 billion. The number of mobile phone subscribers was up by 70 percent in the same six-year period, rising from slightly less than 159 million in 2003 to around 270 million last year, according to the US Census Bureau (2009).

Text messaging is a clearly an emerging communicative outlet as the previous report suggests. Another controversial linguistic phenomenon that is emerging within the
field of studies in language use is code switching. While CMC is a youth oriented form of communication as Carroll (2008) suggests, this same demographic also employs code switching inside and outside the context of CMC. Thus CMC and texting may translate into different speaking and writing practices that go beyond the CMC setting. These are also intertwined with cultural, linguistic, and identity factors. All these areas deserve further study as well.

## Text messaging as a language phenomenon

The tendency of sending text messages is not only popular within the United States. According to the Mobile Data Association (2000), which tracks SMS usage in the United Kingdom (UK), reports that UK residents sent 90 million text messages in August 1999. The number of text messages in August 2000 rose over $600 \%$ as UK residents sent 560 million text messages; by November 2000, it was 680 million. These numbers are staggering and apparently will not cease for the time being, but at this stage who is sending more text messages, men or women?

According to Nielsen (2010), the average teenager now sends 3,339 texts per month in the UK. Out of the two groups: teen females send an astonishing 4,050 texts per month, while teen males send an average of 2,539 texts. Teens are sending $8 \%$ more texts than they were this time last year. Although no prior records show text messaging tendencies within Puerto Ricans, it can be inferred that our rates regarding cell phone and text messages should be similar or slightly below the statistics of the United States because of our relationship and exposure to similar media. Nielsen (2010) indicated that women from 15-24 years of age texted more than men within the United States. Women accounted for $55 \%$ over men who were at $45 \%$, which in this case is not that big of
difference. In fact the only countries were men texted more than women around the world were: China, India and Saudi Arabia. Text messaging is a recent language phenomenon and due to the recent technological innovation that makes it possible, very little research has been done in this area; adding code switching to texting research should bring a different perspective on language use and how and why bilinguals switch to convey certain meanings. The existing studies on this topic have focused on dynamics of mobile text messaging or code switching in speech and written language. Research that was carried out and shares similarities with this proposed study is Van Gass (2008). Van Gass gathered logs of Internet relay chat (IRC) and logs of interaction on local hubs in DC++ (a file-sharing application that allows for synchronous chatting) and analyzed characteristics of Afrikaans-English code switching. The study indicates that code switching between the English and Arabic script is used overwhelmingly in mobile text messages and that a Romanized version of Jordanian Arabic is used along with English expressions extensively. The results of this study also demonstrated that there are a number of technical elements that might be responsible for the wide use of English or switching between Arabic and English. At this moment the only study, which analyzes both, is Al-Khatib \& Sabbah (2008) analysis of code switching in mobile text messages within a Jordanian community. Although the study is similar in the analysis process, there are major differences between Arab-English code switcher and an English-Spanish code switcher.

Kimball \& Toribio (2007) identifies inter-sentential and intra-sentential language alternation as the key to analyzing code switching from a structural standpoint and through numerous analyses it was clear to see how Spanish-English bilinguals
differentiate different outcomes of contact language. The term code switching has many possible definitions. In a number of previous works (e.g., Blom \& Gumperz, 1972; Castells et al., 2006; Sue, 2003) it has been observed that in certain situations, English is used alternatively with other languages in what is known as "code switching" (MyersScotton, 1993). Grosjean (1982) defines code switching as "the alternate use of two or more languages in the same utterance or conversation" (p. 45). It is important to point out that, linguists and scientists have dealt with the process of defining code switching but have come across terms such as code-mixing and borrowing. Although a range of possibilities exist for the purpose of this study, Zentella's definition of code switching "alter their language choices or vary the style and purpose of the discourse accordingly, and offer a substitute for a previously made choice" (Zentella, 1997, p. 83), will serve as the base for the framework to be used. The study of code switching demands attention and special notice because of the perception that others have about the use or incorrect use of the language. Moreover, there is a necessity to address the ways in which code switching and text messaging are influencing language learning and possible perceptions of language use to create awareness towards the negative notions that surround these.

The outlook of this practice has been analyzed for approximately 30 years and the perspective has maintained consistency among those who observe this occurrence. Speakers of the non-defined mixture of Spanish and/or English are judged as "different," or "sloppy" speakers of Spanish and/or English, and are often labeled verbally deprived, alingual, or deficient bilinguals because supposedly they do not have the ability to speak either English or Spanish well (Acosta-Belén 1975: 151).

Although code switching is a practice that is used within most bilingual communities, it is not solely responsible for all aspects of language use. It seems that stock phrases although more spontaneous than code switching, also can be constituted as an entity within language use. Instead of switching between both languages in a phrase like format, the speaker, writer or textee refers to something established in the English language and just use that specific word or phrase to communicate meaning. It has been suggested by Jackendoff (1997), that there are many thousands of stock phrases in a language such as English, and the same is very likely true of other languages. The notable difference between code switching and stock word/phrase is the non-existent alternation within its constituents. Stock phrases are an established set of words/phrases such as: Happy Birthday, Good Morning, Bye Bye. These occurrences usually arise at the beginning or at the end of an utterance, unlike code switching which would occur at any given part of the sentence but is not an established set of words, these can be alternated. These are not the only two examples of language use, which can be analyzed. The following category to study is that of borrowing and how morphology plays a crucial role in differentiating between borrowing and stock phrases.

Within the related literature there are numerous definitions regarding code switching but it was the case where the definition resembled more the term borrowing than that of code switching. To avoid this dilemma, I used Hamers \& Blanc (2000) perspective on the difference between code switching and language borrowing:

Borrowing and code-switching are phenomena at either end of a continuum: an established loan-word is a historically transmitted word that has been integrated with the recipient language, while code-switching is a
more or less spontaneous, bounded switch from sentences of one language to sentences of another, affecting all levels of linguistic structure simultaneously. Borrowings may look like code-switches in that they retain a foreign status (especially in phonology), while code-switches often resemble borrowings in brevity and in being fitted into the syntax of another language (p. 259).

This definition will help give support to the linguistic trends that are seen in Puerto Rico and also eliminate any unclear notions regarding these entities. Members within society borrow words from another language to explain a new concept or idea in their native language or because they attribute a special meaning or significance to a specific word. Those members have adapted it to the point where they conjugate it to meet the morphological characteristics of their first language. An example within the context of Puerto Rico is the word 'break.' The word 'break' is know in English to mean recess or period of time in which we can relax or do something not pertaining to work. In English we could modify it by adding the past tense morpheme -ed (We breaked at 5). In Spanish we do not add -ed, in fact we have modified the word to the point where if we want a break we say 'dame un breakesito' which is the diminutive form of break in this case. Or we take a word such as 'park' from the verb to halt a vehicle. In Puerto Rico, speakers have adapted 'to park' into 'parquear'. The morphological change lies within the -k switching towards a -q because Spanish has a word similar in spelling "parque" which translates into "park". Teenagers and adults use these formats even though in the mind of traditionalists this is not appropriate language. The last language aspect to delve

[^0]into is that of text-talk, which has been highly controversial because of it's vast shortening of words and sentences.

One of the unique aspects of text messaging as a language phenomenon is the use of text-talk which emerges as a new medium in which "net speak" is used to a certain extent. To understand text-talk one must first understand net speak which was first defined by Crystal (2001) where he argues that net speak is actually a "third medium" different from that of spoken or written speech. Some of the features in text messages that are similar to other spoken language criteria in net speak, as defined by Crystal (2001), include the fact that text messages are time- bound in some cases. Usually when someone is texted they are expected to reply in the same way or using a similar code to do so. This is similar to face-to-face conversation when a person speaks to a friend in a variety of one particular language, the speaker assumes or generally expects that the respondent will respond in the same or with a similar register from which was initially used. Other features that are included in Crystal's definition of net speak that are shared by text talk include the fact that in most cases text talk is spontaneous, loosely structured, just like when one has a conversation with someone.

With regards to written language criteria, text talk, and net speak as defined by Crystal, have more differences than similarities shared by some online communication and text talk (2002). For instance, text-talk is limited by the number of characters as opposed to email or online chat. Thus it becomes a unique writing skill in and of itself to be able to communicate through text messages with only a limited amount of characters at ones disposal. Thus the cognitive process of writing and replying to text messages is faster than that of replying to an email or online chat. This could be explained by the fact
that in other types of net speak, there is time for reading, revising, and write a more elaborate and structured message. Text messages are by definition less structured and with less time to revise.

Text-talk then is more similar to the features defined by Crystal in terms of spoken language criteria (2001, table2.3). When it comes to writing, text talk is different than other types of net speak due to the limitations posed by the characters, time for revisions, and the time that the person texting has in order to think, write, and send the message in order to communicate effectively. It is more of a skill. While Crystal (2001) views the entire process as net speak I could not adapt it to my study directly because I refer to specific fragments, instead of the entire process. In my study text talk refers to specific constituents where the participant used a fragment that fit the specifications but did not necessarily entail that the whole text was "text talk." In some cases participants had an instance where they had one word changed for a latter which would not entail that the entire text message be considered text talk.

Thus, the term text-talk is best described as a complex form of language usage that is vastly different than the traditional forms of communicating, i.e., writing and speaking, but is confined to use in messages relayed from a mobile phone devise to another mobile phone devise, or from a computer to a mobile phone devise. Text-talk is potentially part of what Crystal (2001) defines as net speak, or a third medium, which the linguist suggests is not a temporary phenomenon. With each day that technology increases we are sure to find more and more ways to think and express language, "The phenomenon of Net speak is going to change the way we think about language in a fundamental way, because it is a linguistic singularity-a genuine new medium" (Crystal, 2004). Similar to

Net speak, text-talk includes the lack of capitalization and apostrophization. In some occasions examples of text-talk can be seen in both Spanish and English within the same text message. Text-talk does not have a specific word order, some examples are: tbn (tambien) spl (super or supel) to2 (todos or everything) these can be placed within any part of a sentence exactly like code switching. The two major differences between texttalk and net speak are: 1) text-talk is always mediated through at least one phone and 2) it is limited to a hundred and sixty characters. Regardless of their differences there is an undeniable connection between text-talk and net speak and thus its is important to better understand computer mediated communication (CMC).
"The emergence of computer mediated communication (CMC) has motivated a real dichotomy among researchers as whether to consider CMC as a written or spoken form of language" (Al-Khatib \&Sabbah, 2008). This recent trend has perplexed linguists and forced linguists to delve into categorizing a new species of communication, known as "the third medium". By third medium Crystal (2001) refers to CMC as "more than just a hybrid of speech and writing... displays properties of both mediums, it holds features that neither one of these mediums have." Because of this emergence, language has been modified and slowly altered; because of this, society has had to adjust to this new wave of language which is not only seen on CMC, but also through media, billboards and food products and through face to face interaction.

Over the past decade, society has accepted the spread of CMC and its influence on our language use. It is not enough to accept that the Internet influences our views on language, but look into understanding how and what varieties of language are used on the Internet. It is also of great significance to note, which comprises the majority as
acknowledged by Internet World Stats, 2007), "... majority of global Internet users are non-English speakers". Although the previously mentioned quote does not completely apply to Puerto Rico because we use English as a second language, it is the case that some Puerto Ricans have a low proficiency of the English language. Some functions of English and Spanish in Puerto Rico will be depicted in the following section.

## Language policy in language use in Puerto Rico

Despite U.S. occupation for the past 113 years, 21 percent of Spanish speaking Puerto Ricans report that they do not speak English well, and 45 percent report that they do not speak English at all (U.S. Census Bureau 2003). Puerto Rico has had a troubled relationship with the United States and the economic, cultural and especially political implications of that relationship. All implications of English language contact carry an uncertain stance because of the outlook towards government and the relationship of the speaker with the aforementioned language. Basically, the history of the English language is one filled with complications and varied perspectives. This has brought a confusing conflict for Puerto Rican children who do not know how to approach language on the island; English has long been viewed on the island as both a tool of liberation and an instrument of oppression. Children are told from the earliest grades that English will be vital for their educational and professional advancement, while they are also cautioned that learning it too well may endanger their Puerto Rican identity (Pousada, 1999). Consequently, it is often assumed that promoting bilingual education or educational programs that place a significant importance on English education is in some way moving away from "true" Puerto Ricanness and in the direction of statehood (Algren de Gutiérrez, 1987; Morris 1995; Morris, 1996). Bilingual education is crucial to
understanding how and what Puerto Ricans feel regarding their identity and language. Puerto Rican's are very aware that language is a crucial entity in the process of becoming an accepted member within any society. Culture plays and social context play a vital role in constructing the type of language user that a person develops into. Ochs and Schieffelin (1994) indicate:

> All normal children will become members of their own social group, but the process of becoming social, including becoming a language user, is culturally constructed. In relation to this process of construction, every society has its own development stories that are rooted in social organization, beliefs, and values. These stories may be explicitly codified and/or tacitly assumed by members (p.285).

Because of the heavy flux of American related media, those social organizations have molded the way Puerto Ricans refer to their life stories and the language they use, which is being strongly influenced by technological advances. In addition, technological communication has increased and the topic of access will be analyzed to establish a better understanding as to who is exploring these new hi-tech forms, specifically audiences and text messaging.

Several studies have emphasized the rising use of these new forms of technological communication and attitudes towards code switching. Barlow (2008) mentions the three main uses of non-verbal technological communication and they are: email, instant messaging and mobile text messages (texting). Al-Khatib and Sabbah (2008) report that code switching in text messages functions as a communicative strategy for lowering language barriers, while conserving identity. Finally there is Toribio's (2007)
study on identifying attitudes that Spanish-English bilingual's have and how they differentiate different outcomes of contact language. Furthermore, although these studies have delved into different forms of language use within technological communication, there have been relatively few studies regarding language use and the various technological mediums for that use. Furthermore, even though both topics will be addressed, it will be important to discuss prescriptive notions on language use.

Within some communities switching between languages is not seen as something productive or respectful. For example, "if children spoke English to older females and to other Spanish dominant adults of special status who were not well known... it might suggest a lack of respeto" (Zentella, 1997, p. 87). The study of language use and phenomena associated with it such as code switching demand attention and special notice because of the perception that others have about use or incorrect use of the language. It is this precise mentality, which stigmatizes code switching, and it is because of these sniping accusations, a negative evaluation of these linguistic practices has marginalized the intellectual practices of those who engage in this unique practice. The outlook of this practice has been analyzed for approximately 30 years and the perspective has maintained consistency among those who observe this occurrence.

Speakers of the non-defined mixture of Spanish and/or English are judged as "different," or "sloppy" speakers of Spanish and/or English, and are often labeled verbally deprived, alingual, or deficient bilinguals because supposedly they do not have the ability to speak either English or Spanish well (Acosta- Belén 1975: 151).

The debate as to whether different language uses are part of deprived bilingual proficiency or are of heightened proficiency is something that will not be resolved in this research. Rather than changing the ideology on the subject, this research aims to study code switching in text messages as a socio-cultural linguistic phenomenon in order to better understand how language is actually occurring and what might be the thought process behind the textee. This will allow future researchers to expand on this body of research in order to obtain definitive answers towards promoting it as a beneficial entity. This type of language use is not the only aspect of the study, which is examined. Text messaging is another entity, which is heavily criticized among language purists, but also

Language and technology seem to be working together to a certain degree and is being a great factor in the way Puerto Ricans express and portray themselves to other networks, especially those who have access to technology. Several studies have indicated the practices of alternating languages within CMC are a slightly recent development and will continue to increase, as technology becomes more of a necessity within everyday life. Now that social networks are also serving as a type of messaging system, it is no surprise that a CMC style of communication is expanding and will continue to increase. It seems that teenagers are looking for innovative ways to stay within the trends of language and within the trends of their social groups. However, more research is needed in the areas of CMC and language use. The present study examines some of the issues regarding language use and CMC in the Puerto Rican context. It will further explores how these theories may help to explain phenomena related to the use of both English and Spanish in text messages and how gender and proficiency levels are significant factors in this specific context. The following section will give a depiction of the methodology used
to carry out this study and how linguistics as a communicative activity will help interpret the data collected.

## CHAPTER THREE: METHODOLOGY

This chapter presents the methodological approach of the research and presents the procedure that was followed to conduct the study and an explanation of the instrument used to elicit the data. Furthermore, in this chapter, I will also describe the setting where the study took place as well as the criteria for each participant involved in the study. The data collection techniques or methods will also be explained.

This study does not only focus on the individual, but also groups, institutions, methods, and materials used by those who text. To analyze, describe, compare and contrast what this study consists of it is necessary to adapt an instrument which would elicit the data necessary to answer my research questions. Thus the study, gathered data on a one time basis, meaning that after participants had filled out and provided the text messages, they were not be required to meet or provide anything else after the initial data collection. According to Cohen (2008) "[t]ypically, surveys gather data at a particular point in time with the intention of describing the nature of existing conditions, or identifying standards against which existing conditions can be compared, or determining the relationships that exist between specific events" (p. 169). Applying Cohen's statement on what the survey methodology entails, I analyzed the relationship of language use in text messages in a synchronic manner. Thus, participant selection, as in any survey, is of utmost importance and will now be discussed.

## Participants

The participants of the study were students at the University of Puerto Rico Mayaguez, specifically first-year college students. This study addresses issues of proficiency and language use as well as sociolinguistic factors when text messaging, as
such students were selected based on proficiency levels. The study was conducted with two sections of the following language proficiency levels at UPRM: Pre-basic English, Basic English, Intermediate English, and Advanced English.

The students' College Board Entrance Examination scores determine the level of English proficiency for all students at the UPRM. The following chart shows the proficiency levels and the score used to place students in the courses:

Table 1: Proficiency levels at UPRM

| Proficiency Level | CBEE Cut off Points |
| :--- | :--- |
| Pre-basic | 469 or less |
| Basic | $470-569$ |
| Intermediate | 570 or more |
| Advanced | Received a 4 or 5 on the Advanced <br> Placement (AP) English Exam |

The AP exam is not a requirement for high school students. In most cases it is offered to those who were in advanced courses during their senior year and want to get some credits approved before they begin university studies. This study analyzed all English level proficiency groups at UPRM because of the endless possibilities of results based on the language use of these participants. Because of this it was necessary to point out the requirements for admission to each English course to be able to analyze the differences in language use within text messages.

The site of this study could have been at any UPR campus because of the diversity of the population and all offer English courses. I chose the Mayaguez campus for the site of my data collection. This site was less difficult to gain access to classrooms
for recruit of participants because of my role as a graduate assistant and my familiarity with faculty.

The 74 participants in this study all came from one the English proficiency groups mentioned above. They are presented according to the lowest entry level to the highest entry level. Out of the 74 participants, 36 (48\%) were female and 48(52\%) were male, which is in line relatively close to the University's gender makeup of enrolled students, which is 2,421 for the year 2009-2010 (UPRM Office of Institutional Investigation and Planning). The following is a table that presents the number of students within the study and the amount according to gender and English classroom.

Table \#2. Participants according to gender and their English track

| Gender | Total (74) | Percentage \% |
| :---: | :---: | :---: |
| Male | 38 | 52 |
| Female | $\mathbf{3 6}$ | 48 |
| English track | $\mathbf{1 4}$ | $\mathbf{1 9}$ |
| Pre-Basic | $\mathbf{2 5}$ | $\mathbf{3 3}$ |
| Basic | $\mathbf{1 7}$ | $\mathbf{2 3}$ |
| Intermediate | $\mathbf{1 8}$ | $\mathbf{2 5}$ |
| Advanced |  |  |

Out of the 14 Pre-Basic students 6 were male and 8 were female, from the basic track 11 were male and 14 were female. Every student who completes the Pre-Basic course follows it up with the basic course, so even though there are 25 registered in Basic, some of them might have been previously registered in Pre-Basic. In regards to Intermediate, out of the 17 participants 12 were males, while females only had 5 participants. The only category to have an equal amount was that of Advanced English,
which had 9 males and females. From the Pre-Basic track there were 14 (19 percent) total participants, which was the lowest total out of the 4 groups. According to the director of the English Department at UPRM this number correlates with the actual percentage that represents the yearly incoming class of freshmen. Within the Basic track there were 25 ( 33 percent) of the participants, which also goes along with the average number of freshmen that enroll at the UPRM at 28 percent. The following two groups accounted for a similar number of participants; Intermediate accounted for 17 (23 percent) participants and has the greatest number of freshmen enrollment at 43 percent. Finally the Advanced English group had a total of 18 (25 percent) participants and they account for 16 percent of enrollment.

## Data Collection

For the purposes of data collection after gaining UPRM IRB approval I approached professors of each of the English courses to provide me with a few minutes to explain my study to their students (See Appendix D). After being granted permission I informed potential participants, in their native language, of the potential risks, presented the consent form, and also presented evidence of my study's IRB approval. Afterwards they were invited to participate in a classroom nearby to fill out the questionnaire; the only requirement for this study was that they had a mobile phone and that they were enrolled in the course where I was recruiting the students. When students decided to participate they were provided the two-page questionnaire, which can be seen in Appendix A. The first page consisted of a description of the study and the consent form, which they were required to sign if they wanted to participate in the study. The second page consisted of questions pertaining to their educational and language background. On
the back of the second page were the questions regarding mobile phone history, use, and had a small space where they were to write down their last 10 text messages sent and received. When the participants reached the final portion of the questionnaire, they took out their mobile phones to write their text messages. At times students seemed to be amused with their own text messages and that is when I emphasized the importance of being honest in their reporting and reiterated the fact that it was an anonymous survey. I administered and collected all the surveys, which were analyzed in a qualitative and quantitative manner.

Quantitative and qualitative analysis was carried out to analyze the data from the questionnaire. The questionnaire consisted of an array of items pertaining to language use throughout their educational history and technology related questions. The last section of the questionnaire consisted of a chart that provided participants a place to log how it was that they were writing and receiving text messages. They were required to provide their last 10 text messages. While writing the text messages they proceeded to circle whether they "sent" or "received" that particular text message. In addition to providing the actual text of the messages, participants also provided the relationship they had with the person sending or receiving the text message.

After all the questionnaires were collected I proceeded to mark all the English entries on a separate chart that was clipped to the relevant questionnaire. I used rudimentary quantitative analysis to tease out the percentages of frequency between English and Spanish choice in the corpus of data. The criteria that were employed to evaluate text messages will be illustrated in the next section.

Qualitative analysis highlighted and carried out the communicative functions performed by using the two codes. However, the questionnaire was fashioned after that used by Warschauer (2002) but was modified to fit the needs of this particular study. Warschauer et al. questionnaire gathered data on language use and previous history regarding culture and attitudes. Questions for Warschauer's study included an interview section where he had questions pertaining to language background, SMS language use and mobile and other media questions, which I on the other hand did not incorporate an interview session and solely relied on the survey. In my survey I had a mix of his questionnaire and interview premises, but left out SMS language use and media questions. His survey had a different method of eliciting answers. His questionnaire had 4 categories in which participants were to respond: Strongly Agree, Agree, Uncertain and Disagree, while mine had: Spanish only, English only, or both languages. The questionnaire that I created was adapted to elicit data similar to that of Warschauer et al, but adapting it from the use of language on computers to that of text messages. Therefore, questions were added regarding mobile phone use, the keyboard used, amount of texts sent, and most importantly the actual texts sent and received.

## Data analysis of the survey

All surveys were initially grouped by language proficiency and then were tallied and analyzed based on emerging categories. A code system was developed in order to categorize the different patterns salient in the data.

There was two code systems: (1) Domains and (2) Language Use. The domains discussed as part of the data analysis are: (1) home, (2) university, (3) friends, (4)

Internet, and (5) work. The categories coded for language use were: (1) code switching, (2) text-talk, (3) stock phrases, and (4) borrowing.

The categories of analysis are further explained in Chapter IV as part of the data and data analysis. The data was also analyzed based on gender and proficiency levels as well as type of schools attended by participants of both (1) public and (2) private schools. Furthermore, the data was analyzed and connected to prior research. For instance, if the text messages used a base language Spanish to English or vice versa, the element to determine code switching was coded as bulkiness (Al-Khatib and Sabbah 2008). By "bulkiness" they refer to the language the text was written in and the switch will go to the opposite language. This also involved the counting of Spanish and English words, phrases or sentences and tallying up a percentage (Al-Khatib \& Sabbah, 2008).

By "bulkiness" they mean if the bulk of the text was written in Arabic, the switch then will be in the direction of English and if it is in English the reverse is true. Thus, "bulkiness" is measured by counting the number of occurrences of Arabic words, phrases and/or sentences in each text against those used from English collectively and working out a percentage score for the instances of each language. The language, which scores higher percentage, would be treated as the base language (Al-Khatib \& Sabbah, 2008).

## Domains of language use

Domains of language use are often defined by the space in which language is used. Thus, the domains of the Home, University, Internet and Work all have a specified visual space where language interaction occurs. However, for the purpose of this study, I also include a domain of language use called "friends" despite the fact that friends are a
part of the participants' daily interaction; they do not reflect a set space like the other domains. Furthermore, there were two competing definitions for domains of language use and they both support my outlook of "friends" as a domain. For instance, Purcell-Gates' (2007) definition of literacy events was also coded as a sociotextual domain. The concept of the sociotextual domain was developed through the work of the Cultural Practices of Literacy Study (CPLS), a meta-study of literacy practices in different sociocultural contexts. CPLS uses the term sociotextual "for the domains of social activity that contextualize social textual activity that reflects social relationships, roles, purposes, aims, goals, and social expectations" (Purcell-Gates 2007). Even though this definition fulfills the role of intention and does not require setting alone, it fails to mention "friendship" as a possible example of a domain of language use.

Unlike Purcell-Gates (2007) the seminal publication of Fishman (1972) on the other hand referred to domains of language use in a slightly different manner:
[d]omains are defined, regardless of their number, in terms of institutional contexts and their congruent behavioral co-occurrences. They attempt to summate the major clusters of interaction that occur in clusters of multilingual settings and involving clusters of interlocutors (p. 441).

Fishman also mentions examples for domains such as: family, education, employment, friendship, and government administration. Thus, both definitions provide great insight into defining domains of language use, and form my rationale for including "friends" as a domain of language use. Purcell-Gates views domains of language use as an activity, supported by linguistics as a communicative activity works to frame my research.

Moreover, Fishman (1972) provides examples, which strengthens the inclusion of a category labeled "friends" as a legitimate domain of language use. However, like my study, Fishman use of the "friend" domain requires a bilingual community. While it is probably not the case that all of the participants in this study are bilingual, it is the case that the UPRM is a bilingual environment where textbooks, lectures and the institutional policy is that of both Spanish and English (Blau \& Dayton, 1997). Furthermore both definitions contribute to my understanding towards the classification of friends as a domain of language use. For the purpose of this study "friends" will be viewed as a domain of language use where the participant is interacting with a companion in a variety of different spaces. During the elicitation of data I told the participants that "friends" referred to any instance where they were with their friends and could be at any given place, whether it was at the mall, McDonalds, driving in the car, or in any other scenarios.

## Data analysis and examples of text messages

To better understand the nature of text messages and their content regarding the construction of a text message; each message was analyzed and interpreted in relation to their sociocultural background. If the text messages for some reason were not decipherable, they were presented as the participants wrote them. In order to examine language use, sociolinguistic, and gender factors, my intention was to analyze each strategy used by the participant. Although a large corpus was gathered only some examples relevant to the research questions will be discussed in Chapter V as part of the data analysis section of this study. The text messages discussed as part of the data analysis will show patterns that were salient based on language use, proficiency levels,
and gender differences. These issues are linked to the three research questions that guided this study.

## A cautionary note on text messages

I collected 8-10 text messages from each participant; and only analyzed the texts that had 10 or more characters because I felt that less than 10 characters would most often indicate a brief response or initiator of a larger conversation. Names and any information that might identify the participant were removed to protect the participants. Also jokes or chain messages were not counted as text messages because the person did not write them; they are usually the result of a forwarded message.

In summation, after receiving informed consent, 74 participants completed a two page survey where they identified their own use of language, as well as their use of mobile phones, the amount to which they use their phones, and they provided examples of the text messages that they had recently sent and received. In the next section, I will provide the findings of the questionnaire along with analysis of these findings.

## CHAPTER FOUR: DATA ANALYSIS

This chapter presents the results gathered from the questionnaires of 74 students from the UPRM regarding their use of mobile text messages. The first section of the chapter discusses the demographic results of the questionnaire regarding the four groups of English students who participated. In order to facilitate reading, I will analyze the results of all the items of the questionnaires in their totality, and then move on to analyze and compare how particular groups within the four English courses answered.

The second section of the chapter presents the results of the language used within text messages provided by all participants but disaggregated according to participants' gender. The second section is followed by an examination of the language used within particular domains.

The 74 participants of this study were all students from the University of Puerto Rico at Mayaguez. They were asked to fill out a questionnaire and provide their 10 last text messages. The questionnaire consisted of numerous questions regarding educational background throughout their years of schooling while also addressing whether or not their respective school was public or private (See Appendix A for complete questionnaire). It is important to address issues regarding English proficiency as (Brusi, 2009) questions and analyzes how students from public and private institutions fair at the UPRM. Thus, Question 5, regarding participants' schooling, provided a space for participants to identify whether they attended public or private school at the three tiers of education in Puerto Rico: elementary, junior high, and high school. Question 8, was created to examine domains of language use and participants were asked to mark the language they used in their daily domains of language use: within the home, at the
university, with friends, on the Internet (Facebook, Twitter, email) and finally the language they used at work. The domain of work was optional as many of the participants are fulltime students and are not working. They were asked to place an X under the language(s) they used the most and the three options for these were: Only Spanish, Only English or both languages.

The first page of the questionnaire was solely dedicated to identifying participants' language use within different contexts, whereas the second page provided majority of the insight into how students are using text messages to communicate and the language that they use for this communication. The second page of the questionnaire had questions regarding the actual text messages that participants sent and received. Question number 10 was related to the style of keyboard that each participant's telephone had and to answer that question they would have to circle if they used a QWERTY $^{2}$ or a traditional phone's dialing pad. Before they commenced the study I took out my phone and showed them the difference between both keyboards. Question number 11 was directed towards what they considered to be the average amount of text messages participants sent per day. The range that was given was from 1-10, 11-20, 21-30 and 31 + . The last item of the questionnaire elicited the authentic messages and 10 lines were provided for students to provide text messages without editing or modifying any of the actual writing. Within these I examined the language used within each sent text to see if English was being used and if English was used, which of the types of English language was being used? The various categories that text messages were grouped into were the

[^1]following: code switching, text-talk, stock phrases, borrowing, all English, and finally no English.

Throughout the subsequent sections of this chapter, I will provide detailed tables of data corresponding to each of the items in the questionnaire, which signal tendencies among University of Puerto Rico Mayaguez students within their text messages. Furthermore, the correlation between educational background and their current English track will be presented and will be further explained and analyzed in the discussion chapter. Examples of all types of language use within text messages will be provided by all different English tracks.

## Language use within domains

This section of the data analysis chapter is comprised of the results of all participants and their use of language within five defined domains. These domains were chosen because they were assumed to be the most common environments for this college student population. Students had the option of choosing whether or not they used Spanish only, English only or both in each domain. The choices they were given regarding domain use were the following: house or room ${ }^{3}$, university, friends, Internet and work. The domain of Internet was accompanied by key websites such as: Facebook, Twitter or an email account they consider visiting frequently. The domain of work had a bracket that indicated optional, because not every student has a job.

[^2]Table \#3 Language choice according to domains in percentages

| Domain | Spanish | English | Both languages |
| :---: | :---: | :---: | :---: |
| Home | 67 | 0 | 33 |
| University | 26 | 0 | 74 |
| Friends | 39 | 0 | 61 |
| Internet | 15 | 1 | 84 |
| Work | 22 | 1 | 28 |

The first domain was home and was dominated by Spanish only within this environment. Out of the 74 participants, 50 marked that they only used Spanish. This contributes to $67 \%$ of the total population, which means that two thirds of the participants use Spanish only as their means of communication within their household. The other one third of the population marked that they used both English and Spanish within the household, accounting for 24 (33\%). No participants marked that they used English only as a language at home. The comparison with the home language use is interesting when compared to university language use where a considerable amount of English is used on campus.

Within the university, the numbers differ greatly compared to those of the home. Participants who only speak Spanish at the university accounted for 19 total out of the 74 , which is equivalent to $26 \%$ percent just a bit above a quarter of the participants. No one marked English as the only language used and therefore 0 percent attributed to the total. On the other hand, 55 participants marked that they used both languages within this domain, which is also parallel to its high percentage of 74 percent. Surprisingly all of the
participants were taking an English course and yet still reported that they did not use English at the university.

The 'friends' domain was interesting because traditionally the target audience of text messages and other computer-mediated communication is generally friends of the same approximate age, which can be supported by Carroll's (2008) study which reports the average Myspace.com users range between 18-24. Even though Myspace.com is not a messaging system, it shares a trait with text messaging in that it is a unit of CMC. The friends' domain does not identify a "specific" context, such as face to face or on the phone. When it came to language use with friends 29 out of 74 indicated that they use Spanish only when dealing with their friends, this is the equivalent of $39 \%$. Like the previous 2 domains home and university, no one indicated that they use English only as their full language use within this domain. Again, both languages significantly dominate with 45 out of 74 participants. These numbers attributed to $61 \%$ of the participants, which is slightly less than two thirds of the entire group. To this moment we have observed domains that require physical presence of another person, but this next category requires no such thing and yet it might be the environment that students spend the majority of their time.

The language environment of the Internet is extremely diverse for various reasons. This environment does not require the person to be in one single location, the only thing it does require is a device to access the World Wide Web. Whether it's through their phone or through a laptop, Internet seems to be a very accessible tool to students studying at UPRM. Students within this questionnaire answered within all three available categories. The category of Spanish only had 11 out of 74 participants, which is
the equivalent to 15 percent. One person indicated that English was the only language they used while using the Internet, which is barely 1 percent of the entire group of participants. The majority of participants indicated that they used both languages and the results were 62 out of the 74 participants, which is roughly 84 percent. This last group covers more than 80 percent out of the total, which constitutes the biggest difference between all three of the language possibilities. In all 4 domains the amount of participants has been fully portrayed. Within this next domain there will not be 74 participants because not every participant had a job.

The work domain in this case study was optional because students are not forced to work and many are not currently working. Out of the 74 participants, 38 reported that they do work, while the other 36 did not answer the question. Out of those 38,16 said they used Spanish; only within their work environment, which when looked at within the whole demographic is equivalent to $22 \%$. Surprisingly, one person indicated that they use English only within their work environment, which made up approximately $1 \%$. When it came to using both languages 21 participants indicated that they used both Spanish and English, which is a bit over a quarter of the of the participants at $28 \%$. After having now portrayed the language being used within various domains of language use, I will now move to describing the variety of language that is used in the text messages of participants.

## Text messages sent and keyboard usage

The previous section provided a glimpse into what languages are being used within the environments that were previously discussed. The results showed that both languages are highly used within all environments except that of the household. The one
domain where participants reported using both Spanish and English at a high rate was with their use of the Internet. As was previously mentioned, phones and computers fall under the category of computer mediated communication (CMC) and both share similar practices and to some point they also share many of the same features. Within the next section I will provide results regarding the number of text messages that are sent on an average day, the keyboard used to emit and receive these messages, and finally the language used within these text messages.

This section will use the same 74 participants and examine items 10 and 11 of the questionnaire. Item 10 is the question regarding the average amount of text messages the participant sent on a daily basis. And item 11 was to whom they sent the majority Almost every mobile telephone in today's technologically advanced world has the capability of sending a text message. They might not have a text messaging plan, but the phone still has the capabilities to send a text message. In fact if a person wants to send a text message they could do so by going to the website of the phone company of the person who will receive the message and arrange for a message be sent directly from the computer to the receiver's cell phone. In Puerto Rico's case, all mobile phone companies have a website where receiving online text messages can be achieved if you go to the companies website and look for the sending a text message option. No matter which alternative a person decides to use, the one thing that has not changed is that it is still limited to 160 characters. Within this study, participants had the opportunity to mark how many messages they sent on an average daily basis. Something worth noting, is that this study only takes into account those messages sent through the company's personal messaging service. Other possible alternatives are BlackBerry Messenger, MSN, Yahoo,

Facebook, Twitter and other applications, which are available for downloading on a mobile phone, but are not included in this study as they are not the traditional form of text messaging. According to participants' responses, students at UPRM send a low amount of texts messages when comparing to the average number of males and females in the United States. When provided a range between 1 text and 41 plus per day, students reported that they send a sizable amount of texts. The possibilities of amount of texts sent were: $1-5,6-10,11-15,16-20,21-25,26-30,31-40$ and $40+$. Participants circled the amount they felt was the closest to what they thought they sent per day. For the purpose of organizing the data I grouped them in groups of 10 , which can be seen within this chart.

Table \# 4: Quantity of texts sent per day by total of participants

| Quantity of Text sent per day | Totals | Percentages \% |
| :---: | :---: | :---: |
| $1-10$ | 26 | 35 |
| $11-20$ | 27 | 36 |
| $21-30$ | 6 | 8 |
| $31+$ | 15 | 21 |

The first group, which is amount of text 1-10 per day, totaled 26 out of 74 participants. This group nearly accounted for over one third of the total participants within the study. Even though 35 percent account for 10 messages or less per day, 65 percent did indicate that they send more than 11 text messages per day. This would average to $900-1,000$ texts sent per month. Even though the amount is nowhere near the amount sent by Americans and citizens from the United Kingdom it is still an incredible
amount of language use when considering that texting has been a more popular trend, within the past decade or so. Nielsen (2010) reports that trends within the United Kingdom range from 2,500-4,5000 text messages. These low numbers could be the case where access to technology is still expensive, because texting is mostly an added feature within phone plans and does raise phone bills.

Not only does the past table indicate the amount of texts sent, it also indicates that high volumes of texts are being sent out on a daily bases. Because of the high volume of texts being sent, telephones are being modified to fit this need. According to Nielsen (2010), "texting is currently the centerpiece of mobile teen behavior. 43 percent claim it is their primary reason for getting a cellphone, which explains why QWERTY input is the first thing they look for choosing their devices." Within the questionnaire, item 10 elicited the type of keyboard participants used to send text messages, QWERTY or Traditional. There are currently only two options for Puerto Rican audiences regarding type of keyboard. The first option is the traditional keyboard, which means that the letters are assigned according to number. For example the \#1 does not have a letter, the \#2 has the letters ABC and so on until the $\# 9$, which ends with the letters WXYZ. The QWERTY keyboard is the one that is available on computers and is named QWERTY because those are the first letters that appear consecutively below the top letter row of the keyboard, read left to right: Q-W-E-R-T-Y. The following will show a small table that depicts the amount of participants who choose between the traditional or QWERTY keyboard ${ }^{4}$.

[^3]Table \# 5 Keyboard types used by participants

| Keyboard type | Total | Percentage |
| :--- | :--- | :--- |
| QWERTY | 58 | 78 |
| Traditional | 16 | 22 |

Within this table, two options are presented, the traditional and the QWERTY keyboard. Out of the 74 participants, 16 chose the traditional keyboard. Percentage wise it accounts for 22 percent, which is just nearly less than a quarter of the entire demographic. The other 58 participants circled that they had a QWERTY keyboard making up 78 percent of participants. These findings certainly reinforce Nelson (2010) argument that cellphones and the reason for acquiring them are primarily for text messaging purposes. I will now focus on the language that is being used within text messages and examine whether these are trends that concur solely within this medium of communication or whether they are exemplified in other domains of language use.

## Language use within text messages

The last segment to be described within this section is that of language use within text messages. This section will not have an equivalent number of $100 \%$ because some participants had multiple tokens of different language use within their text messages. That is to say that some examples might have a token of code switching and text-talk within the same text message, while others had no tokens of English. The categories that were analyzed were the following: code switching, text-talk, stock phrase, borrowing, all English, and no English. Another important detail to take into account is that I only examined messages that were sent by the participant. Therefore, in cases where text
messages were received and there was a token from one of the aforementioned categories, they were not included in the tally because the participant did not write the text, and it would have been to difficult, methodologically, to control for such a variable. Nevertheless, a total of 503 messages were collected from the 74 questionnaires, which came out to an average of 7 text messages sent per participant. The following table indicates the distribution among the different categories of English use within the 74 participants and the amount of people that used one of the strategies within their text messages.

Table \# 6 Type of language used in text messages ${ }^{5}$

| Types of Language used | Total | Percentage |
| :--- | :---: | :---: |
| Code switching | 17 | $23 \%$ |
| Text-talk | 13 | $18 \%$ |
| Stock phrase | 27 | $36 \%$ |
| Borrowing | 15 | $20 \%$ |
| All English | 2 | $3 \%$ |
| No English | 27 | $36 \%$ |

The categories above emerged from the data elicited through the text messages provided by students. The following section explains in detail each category and provides examples from the data for each one.

## Code switching

The first category to be analyzed will be the one of code switching. The definition stems from what I had previously mentioned with Zentella's (1997) study on bilingual a bilingual community of Puerto Ricans in New York. According to Zentella (1997) code

[^4]switching is the alternation of two or more codes within one segment of language. A person might be using one language and further along within the conversation they switch to another language to complete the expression. Code switching can also be placed in any part of the sentence, whether it is starting the sentence, within the middle of the sentence or at the end of the sentence. An example of code switching that was within the corpus of text messages was the following:
" jajaja that's not easy... voy a jugar loto deskiciadamente ..."
The switch is done but it is not using a borrowed word, it is an actual phrase from one language (in this case English) that is being incorporated and later switched with another phrase but in a different language (Spanish). Thus, written in English this phrase would translate to: jajaja that's not easy... I'm going to play lotto like crazy. Within this category 17 out of the 74 participants had one instance of code switching in their text message. According to Zentella "code switches can occur at the boundary of complete sentences (inter-sentially), or within sentence boundaries (intra-sententially)" (1997). Some examples that are inter-sentential code switching from the corpus are:

Not much, te iba invitar pa vega baja peor veo que tienes mucho trabajo
So I'll tel you the truth... estoy adicta a ti...
There were also accounts of intra-sentential code switching where the switch happens in the middle:

Ta bn mamita, I got test too, ps un dia despues del examen y dentro del lunes ;) cdt mamita !!!

Mira, dime si me puedes ver online en chat de Facebook pq hoy pusieron Internet en mi apt y kier over si funciona

Baby voy a the church te llamo cuando salga TAM !!

Code switching was equivalent to 23 percent, which represents a little less than a quarter of the population. Many different forms of code switching were exemplified within the data and portrays a great variety of different ways of using code switching, while also showing they type of code switching used by UPRM students (See Appendix E). The following category to be analyzed and portrayed within the results is text-talk.

## Text-talk

According to Crystal (2009), net speak is when the language user incorporates terms that have become popular throughout the Internet and are often truncated or abbreviated to shorten the amount of key strokes one has to make in order to write a word or phrase. In another publication, Crystal (2001) makes the argument that net speak is essentially a third medium of communication, as it has various properties that differentiate it from spoken and written language. Similar to net speak, text-talk, which will be used to analyze the data in this study, is characterized by truncated words or expressions used to more efficiently convey a message within a medium restricted by one hundred and sixty characters. Part of text-talk includes, facial expressions, symbols and other emoticons however; for this study, language and letters will be the only form of text-talk that will be analyzed. Some examples of text-talk that will be analyzed are the following: " U wanna come 2 my house." This phrase is using text-talk, because it is substituting the word "you" for the letter "u" which is phonetically accurate to the entire word. This is done to express something shorter, which was also the case for the writing of the word 'to' as a number ' 2 ,' in the example above. This could have possibly been done because of character constraints in text messaging. Other examples of text-talk were:

Is the blood drive $4 u r$ sister 2day
I am lost... lol

Te envio las pics por email
$U$ welcome and happy b-day again
No not rlly lolz so how's my cutie
With only 160 characters per text message writing in the shortest possible code is essential to convey meaning and to save resources. Within the questionnaire, 13 out of the 74 participants had at least one token of text-talk in their text messages. Percentage wise, this makes up 18 percent. This was the language category that had the least number of tokens.

## Stock phrases

The next category, stock phrases received the largest amount tokens. Stock phrases are usually categorized as a catch phrase or popular phrase used within television or other common aspects of the media, popular culture or one's everyday life. For the purpose of this study it will be portrayed as a standard phrase that can be remembered and does not require linguistic variation. It is a phrase that no matter how you incorporate it will not require any modifications or any advanced learning of a language, because it is so commonly used within the language context being examined. Phrases or words that were part of the text message data that can exemplify this category are: Random, Where are you? Me too, Love you, Happy Birthday. Those are just some of the examples that participants wrote and were logged as stock phrases within the data collected. A total of 27 students used a stock phrase within their text messages. That is the equivalent of $36 \%$ of the entire group. This category provides the largest amount of tokens related to the

English categories and is tied for the prevalent amount among all categories within this study. Some examples pertaining to Stock phrases within the corpus are the following:

Ditto sorry toi muy llena pero grax anyway
Good Morning primero que todo... necesito un favor, tu me prestas tu laptop

Mira ven a la biblio para que hagas lo de la clase de Bio ...
Please!Please!
Ok me too
Yes, why?
While stock phrases seem to be popular among the Puerto Rican participants, an additional category that uses English words that have been blended into what are now considered to be 'adopted' Puerto Rican words, were labeled: borrowings.

## Borrowings

Within categories of language use borrowings have often been confused with code switching. Though many authors have dealt with the processes of code switching, code mixing and borrowing, not all of them have provided clear distinctions for such use (Romaine, 1989; Myers-Scotton, 1990; 1993; Poplack, 1988). This study will examine borrowing as words, which have been modified phonetically to fit the need of the host language. For instance a word would have to be taken from the second language which in this case is English and would be used in Spanish but the word will have been modified to fit the linguistic rules governed by the host language, in this case Spanish. For instance the English verb, "to hang out" has been modified into Spanish and is now used commonly in Puerto Rican Spanish as the verb: "janguear" they both mean the same
thing but the latter is the borrowed version of the English phrase. It can be seen as borrowed, specifically because of the spelling and how it is modified, the word "jangueo" is a noun but by adding -ar, we turn it automatically into a verb. Many Puerto Ricans interpret such use of language as a form of corruption of Spanish. Nevertheless, it has not seemed to deter Puerto Ricans from using borrowed words and phrases in many of their daily functions. Some examples of text messages with borrowings are:

El examen tah chilin

Coneguiste parquearte?
Ya toy ready
Hermana check el periódico
Okk dame un break
Although some might be spelled the wrong way, their semantic value stays intact and those that are spelled exactly the same way in the second language are used within the host language's phonemic rules, to the extent that many of the users think it is origin is from Spanish. From the questionnaire 15 out of the 74 participants used borrowings in their text messages. This is slightly above the 20 percent mark. At this point within the study none of the language use categories have been below 18 percent. In this next section, I will explore the number of participants who texted completely in English and those who did not send any text messages with a word in English.

This study has provided a set of examples of different categories of language use within text messages. However, some of these messages have also shown common responses in the sense that some participants did not use English at all within their text and in some instances sent an entire text in English.


#### Abstract

All English

Text messages completely in English were not something common within this study. Out of the 74 participants only 2 sent an entire text message in English, one example "A bit tired but ok. Going to school?" "Yup" these are just some of the examples of text being sent completely in English. Since there were only 2 participants who fit this criterion, it only tallied 3 percent of the total group. It could have been the case where the participant received a text message by someone who's first language was English, but for the purpose of this study they only provided the relationship they had with the person sending the text message. For a future study it would be interesting to see the language background of both sender and receiver.


## No English

When it came to text messages completely sent in Spanish, there were a total of 27 participants or 36 percent. The numbers that have been presented give several implications regarding the way language is used by the youth at the UPRM and also will serve as a catalyst to look into more depth at several divisions that include gender (male vs. female) or the analysis of schooling before the university (public vs private education).

## Male and female participants using text messages

Language differences were seen across all the multiple options within the different English tracks at the UPRM. In this section I will provide the results of the questionnaire regarding the amount of texts sent between male and female participants. To initiate the process of presenting the results, I will portray the results of text messages
and their use across the world and how the numbers have increased throughout the past 11 years. In addition to presenting this data, I will also provide a comparison between male vs. female texters in different nations. This will be done to make a comparison between those nations and the one of Puerto Rico and the United States

The study that I conducted at the UPRM had a total of 74 participants in which 38 were male and 36 were female. The results regarding student's educational background, the language used within domains, keyboard use and amount of text messages sent per day will be presented in terms of gender.

## Schooling: Male vs. Female Participants

This section provides a glimpse into the academic background of participants before arriving at the University of Puerto Rico at Mayaguez. Within this section and the following, I will use a comparison method to present tables, results and discussion for each separate category. The first category to be analyzed is male vs. female will be that of English and the number of participants according to gender. I had previously mentioned that the four possible English tracks are: Pre-Basic, Basic, Intermediate and Advanced. The following is a table that portrays the four English groups within males followed by a table with the female participants. The number of participants reflects the amount that decided to participate within each classroom that was visited.

Table\# 7. Male and Female participants by English track

| English track | Male | Female | Total |
| :---: | :---: | :---: | :---: |
| Pre-Basic | 6 | 8 | 14 |
| Basic | 11 | 14 | 25 |
| Intermediate | 12 | 5 | 17 |
| Advanced | 9 | 9 | 18 |

## Domains of language use: Male vs. Female

In this case I'll examine the language used regarding 5 different domains. It was previously mentioned that the 5 domains that would be looked at within the study are: house/apartment, university, friends, Internet and work. The following are tables that present each domain and the language or languages they use on a daily bases. Underneath each category is the total number of participants. This table represents the number of participants that marked whether they used Spanish, English or both languages. The only category, which does not include the total number of participants is the work domain because work was an optional category and not everybody within the study had a job.

Table\# 8 Male and Female language within domain use (percentage)
$\mathrm{N}=74$
Spanish
English
Both

| Domain | Males | Females | Males | Females | Males | Females |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Home | 60 | 66 | 0 | 0 | 33 | 33 |
| University | 39 | 25 | 0 | 0 | 61 | 75 |
| Friends | 50 | 42 | 0 | 0 | 50 | 58 |
| Internet | 23 | 11 | 0 | 3 | 77 | 86 |
| Work* | 10 | 19 | 0 | 3 | 10 | 28 |

*The work domain does not add up to 38 participants or $100 \%$ because the work domain was optional.

## Domains and language use

The first domain to be discussed is home. The word "home" can also refer to an apartment or house they rent to be close to the university. Within this category both males and females reported similarly. The male group does have two more participants, but percentage wise they are almost identical. Both groups were at 66 percent and 68 percent respectively reporting that Spanish is the only language that they speak within their home environment. Within the questionnaire the premise of house also was accompanied by the
words "or hospedaje" which refers to a student's apartment that is not the house where they are growing up in.

The language choice of English came in at 0 for each group. Both Spanish and English category tied with both men and women at 12 participants, which also led to similar percentages at 32 percent and 33 percent. Moreover, Spanish only and both languages share the same percentages within men and women at the UPRM.

At the University of Puerto Rico at Mayaguez many classes outside of the English Department are given in English or a mix of English and Spanish. Within the questionnaire students from both sexes responded in similar fashion by indicating that roughly 25-26 percent of their classes are in Spanish only. The majority of the participants indicated that 74-75 percent used both languages within the university.

A possibility is that most students will say that the majority of their time is spent at the university and if this is so they usually spend their free hours with their friends discussing classes, waiting for a class or just hanging out. The language used with friends was somewhat of an even response. Males reported the Spanish only category within this field at 37 percent, while both languages received 63 percent. On the other hand 42 percent of females indicated that they used Spanish only with their friends and 58 percent indicated that they used both languages. The data shows that $5 \%$ more men than women in the survey said they used English and Spanish when with friends.

Teenagers spend a significant number of hours on the computer, engaging in different types of scholarly and non-scholarly activities. Web Browsers have recently added a feature so people can change their settings to have the standard browser change everything into the language of their preference. An overwhelming majority of male and
female participants indicated that they use both languages for the Internet. Participants who indicated that they preferred Spanish only as the language for Internet use bring up some intriguing questions, which will be discussed in the following chapter. This was also one of two categories within this section to receive reports of English only use.

The last category which men and women were compared to is that of work. I mentioned before that the results would not add up to the total participants, because this field was optional. Both fields were pretty equal when it came to equality of participants. Males had 20 out of 38 and females 18 out of 36 , which roughly indicate that half of the participants within each group, have a job. The two groups had a few more than a half indicate that they used both languages, while fewer than a half marked that they used Spanish only. Like the section before, this category also had someone indicate that they used English only at work.

Furthermore, although Spanish is the first and dominant language within the household, it seems to be the first language of all of the participants. Within every other category: university, friends, Internet and work use both languages and evidence the daily use of both Spanish and English. Within the following chapter I will present an analysis of the results and how they effect and suggest a change in perceptions regarding Puerto Ricans and the use of English. Something that could be considered for future research is to ask them if Spanish is the first language at their home or if they grew up hearing English within the household. Within the next section I will provide some detail about mobile phone use: the type of keyboard used, the language used within text messages and the amount of text sent per day.

## Mobile phone use

This section will provide all the results regarding the differences between males and females with their preference of keyboard, the amount of English used within their text messages and also the amount of text sent per day.

Table\# 9. Types of English use among Males and Female participants (percentage)

| English used | Male | Female |
| :--- | :---: | :---: |
| Code Switch | 32 | 14 |
| Text-talk | 23 | 11 |
| Stock Phrase | 32 | 42 |
| Borrowing | 29 | 11 |
| All English | 3 | 3 |
| No English | 32 | 42 |

This table presents a distinction between the amount of English used between males and females. The number of males and females represent the total participants out of 38 and 36 respectively and their use of that specific category. Males had almost one third of their participants represented for each category except for the "All English" category. On the other hand Females only had one category where they had over one third and that was within the "Stock Phrases" category, everything else was below the average male mark for use. Females also had ten percent more text messages sent in "Spanish only" than the male group. The last section of mobile phone use will provide the results of text messages sent per day between males and females. Which is interesting and begs the question of whether this is an issue of gender or of the
proficiency level, given that there were more females representing the lower proficiency level courses. Due to the small sample size there is no way to tell or make any conclusions regarding these major differences, but these trends should be analyzed in a future study with a large and more evenly distributed sample size.

Additionally, all participants were asked to indicate how many text messages they sent on a daily basis. The following tables present the number of text messages sent according to gender and has been grouped in categories of tens. In the questionnaire they are divided in groups of 5 .

Table\# 10. Quantity of text messages sent by Males and Females

| Number of text messages sent per day | Males | Females |
| :--- | :---: | :---: |
| $\mathbf{1 - 1 0}$ | 15 | 11 |
| $\mathbf{1 1 - 2 0}$ | 14 | 13 |
| $\mathbf{2 1 - 3 0}$ | 3 | 3 |
| $\mathbf{3 1 +}$ | 6 | 9 |

The bulk of text messages sent on a daily bases between both groups is within the 1-10 and 11-20 messages per day category. Out of the 38 male participants, 29 participants indicated that they sent anywhere from 1-20 text messages per day, which is roughly 75 percent of male participants. Women had 66 percent send through out the same range. Both groups tied at the 21-30 category and females had almost 25 percent of their participants send 31 or more text messages per day, which was a third more than what males send in that category.

Furthermore, after delving into the differences between male and female participants, a few things are more evident through the data analysis. There are more female than male participants who are a part of the two lower English level courses. Both are tied at the intermediate level and males have more participants within the advanced level. In the domain category both male and female participants had similar, almost identical results. The only category that "both languages" were not the dominant choice was that of the home domain. Now that I discussed language use in its various
domains as reported by the participants, I will analyze the difference between participants from both public and private schools.

## Public vs. private schooling

The previous section provided a glance into the language tendencies between females and males at the UPRM and how they differed in domain of language use and mobile phone use. This section will examine aspects pertaining to domain and mobile phone use in relation to educational background. All 74 participants were divided according to whether they studied in a public or private institution before arriving to college. The first category to be looked at is the division of the four English classrooms and breaking them down according to the institution where they studied before.

## Educational context: public vs. private schooling and language

One aspect that is unique about the Puerto Rican context is the fact that there are some issues or concerns related to education, language learning and placement of students by proficiency levels at UPRM. One of those issues is the fact that students from the public school system have less access to the university when compared to their private school counterparts (Brusi, 2009). This also has an impact on language proficiency levels. Students who come to study at UPRM from the public school system are usually at a disadvantage due to their educational background and their access to resources that private schools provide on the island. As such, incoming students from public schools come through the Pre-basic and Basic English track whereas students who come from private schools are usually placed on intermediate and advanced English
courses. The table below illustrates the number of participants by type of school attended and by proficiency level.

Table\# 11. Public and private schools attended by participants (percentage)

| English level classroom | Participants from <br> Public | Participants from <br> Private |
| :--- | :---: | :---: |
| Pre-Basic | 15 | 4 |
| Basic | 19 | 15 |
| Intermediate | 8 | 15 |
| Advanced | 9 | 15 |

Public school had a total of 38 participants, while private school had a total of 36 participants. Pre-basic students from public schools had 15 participants, while private school had 4 participants. The Basic level course had 25 participants and was more even in terms of numbers, with a slight edge going to public school. The first two mentioned are the lowest English proficiency level courses offered at the UPRM. The Intermediate group had 8 participants from public school while private had 15 participants. The last group was the advanced group, which was equal to the Intermediate with the exception of having 9 public school participants and having 15 from private institutions. The next section to be depicted is that of language use within the different domains.

This section will look into the different uses of language between public and private within each language domain of analysis. Within the table there is a list of domains with 6 different language categories. The ones that are highlighted pertain to the public school system, while the ones that are not highlighted pertain to the private school system. The percentages are calculated by having the total amount per type of schooling. For instance if the public school participants who marked Spanish only had 71 percent for
the home domain it was calculated by taking the amount of participants within the public category and dividing the number of people who marked it with the total amount of participants, which was done for each category.

Table\# 12. Language use within domains by public and private schools ${ }^{6}$

| Domain | Spanish <br> Publ. | Spanish <br> Priv. | Engl <br> Publ. | Engl <br> Priv. | Both <br> Publ. | Both <br> Priv. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Home | $71 \%$ | $64 \%$ | $0 \%$ | $0 \%$ | $29 \%$ | $36 \%$ |
| University | $32 \%$ | $19 \%$ | $0 \%$ | $0 \%$ | $68 \%$ | $81 \%$ |
| Friends | $55 \%$ | $22 \%$ | $0 \%$ | $0 \%$ | $45 \%$ | $78 \%$ |
| Internet | $18 \%$ | $11 \%$ | $0 \%$ | $3 \%$ | $82 \%$ | $86 \%$ |
| Work | $21 \%$ | $22 \%$ | $3 \%$ | $0 \%$ | $29 \%$ | $28 \%$ |

Spanish only within the home domain was at $2 / 3$ with both public and private, while both languages were at $1 / 3$ within both institution types. When it came to language within the university domain, both languages category exceeded the use within those who came from a private school environment. Public school was a bit less, yet had more use both languages than Spanish. The friend's category was different because participants from public schools had marked Spanish only more than for the category of both languages. This category was almost at 50 percent, while private school participants preferred both languages at 78 percent. The Internet category had a vast majority indicate that they use both languages. The only category that did not add up to 100 percent was the work category because not all participants worked. Moreover, private school participants only have one category that both languages are the majority, which is the

[^5]household. With public schools, the home and friends domain use Spanish only as their language of preference, while the other three domains had both languages as their preference.

Mobile phone use and the amount of text messages sent will be the last category to be depicted within this chapter. Here I will portray the average amount of text messages sent on a daily basis according to the UPRM participants.

Table\# 13 Text messages sent according to schooling

| Amount of text messages sent | Public | Private |
| :--- | :---: | :---: |
| $1-10$ | $37 \%$ | $33 \%$ |
| $11-20$ | $37 \%$ | $36 \%$ |
| $21-30$ | $8 \%$ | $8 \%$ |
| $31+$ | $18 \%$ | $22 \%$ |

Within this section public school participant's range of text messages sent is 74 percent between 1-20 per day. Private school participants sent slightly less than public within 1-20 and has a difference of 5 percent. The ranges of 21-30 text messages per day were equally between both groups. The last category is that of $31+$, which had a difference of 4 percent.

In concluding, this chapter provides an in depth look at multiple points of analysis regarding the language use within daily domains and mobile phone use. The field of participants was one that was relatively steady in regards to number of participants for the multiple perspectives. Both languages seemed to have surpassed most categories within domain use with the exception of the home domain. Mobile phone use
in terms of using English, was used more by males than females within the categories of analysis, except that of stock phrases, which raises questions of whether this was gender related or actually related to proficiency level because there wan an unequal distribution of males to females in higher and lower proficiency courses. Stock phrases and borrowing do not require a degree of thought such as code switching and text-talk, might it be the case where, should stock phrases and borrowing be considered as evidence for English proficiency? Why are females and public school participants reporting more tokens of stock phrases than any other category? Of those participants who did send text messages with English, who were the recipients of the text messages? How unique are the text messages of Puerto Ricans? How do we fare against other countries when it comes to amount of text messages sent? I will attempt to answer these questions as I discuss my findings in the following chapter.

## CHAPTER FIVE: DISCUSSION

Computer mediated communication via telecommunications technology has been embraced by the youth and young adults and related studies examining the differences in males and females regarding mobile phones have been issued (Ling \& Baron, 2007; Ling \& Haddon, 2001; Klamer, Haddon, \& Ling, 2000). This chapter discusses the research questions formulated for this study as they apply to language and mobile phone use of UPRM students. The following questions will be discussed:

1. What language choices are being made by students at the University of Puerto Rico when they are text messaging?
2. What are the differences in language use to text message by gender and proficiency level at UPRM?
3. What is the relationship between language use and the domain choices made by students at UPRM to text message?

This chapter highlights major findings, which serve to document the language practices of a subset of the texting generation, Puerto Rican bilinguals, male and female users of text messages. It will also highlight whether English is truly used within their text messages in the sample and whether or not the use of stock phrases and borrowing should be grouped with tokens of code switching and text-talk. Furthermore, this chapter will discuss the uniqueness of students from the UPRM.

This study has many different implications and reasons for being carried out, but one of the main purposes of this study was to find out, to what extent UPRM students use English within different environments and the amount of English used within their text
messages. I mentioned before that the importance of eliciting data from all environments was crucial because text messages belong to a different group in regards to communication and as a form of language. Crystal (2004) suggested that text messaging was a type of third medium, which meant that it had both writing and verbal attributes but could not be considered either one specifically. That concept of being a mix of two entities is what characterized the use of multiple languages simultaneously. Many linguists have tried to decipher the process that goes on when a person is switching between languages. Both texting and different forms of concurrent language use considered to be breaking rules in regards to language and the preservation of it by monolingual and language purists. But instead of being ignorant of the circumstances, bilingual users of CMC do know that someone must also be able to interpret their form of communicating and in most cases expect a response to that effortless task.

Data for this study could have been analyzed from many different perspectives or through different theoretical frameworks. For this study I focused on Linguistics as a communicative activity because it helped answer questions pertaining to the needs and reasons of participants to use their text messages the way they do as something valid (Lantolf \& Thorne, 2007). This research will fill the void in discovering if this relatively new medium of text messaging enhances communication and how its unique features gratify certain aspects of communication, which before were unmet. To what extent will this study portray the role of English within the daily lives of the student? In the following section I discuss the main findings for the three main research questions

## Research Question 1:

## What language choices are being made by students at the University of Puerto Rico when they are text messaging?

## Domains and language use

Participants within this study reported using instances of English in all domains, with some domains using more English than others. The domains that were reported as being the ones with both languages used were the domains of Internet, University, and with Friends. Internet was the domain that had the most participants report that they use both Spanish and English. All but 16 percent marked that they used the Internet with both languages and it is no surprise considering the following factors. All web browsers have default languages and the ones that are linked with English settings will portray each page with the English language. According to Alexa.com the most frequently visited pages by Puerto Ricans are: Facebook.com, google.com and youtube.com, which in the context of Puerto Rico appear in English but can be changed to Spanish. Since students were reporting the most use of both languages from a university setting, it is important to note that most classes require students to use the Internet to gather information or prepare assignments.

## Bilingualism and text messaging

The results obtained in the self report questionnaire shed light on both use and the symbolic value that English, Spanish and bilingualism have for the UPRM students in this study. First of all, with respect to their use toward English, it is apparent that they use language to fit different needs, not only those pertaining to tasks at the university. Examples of text messages that were not related to the university environment are the
following. The setting is a thread between sisters and one is extending an invitation to go to church:

Message sent: Hello sister, q vas hacer hoy? Te busco para ir a la iglesia? Love u blessings! (Hello sister, what are you doing today? Do I pick you up to go to church? Love you blessings!

This text message has various examples of stock phrases (Hello sister, Love u, blessings), in fact that same stock phrase "love $u$ " is also an example of text-talk because of it's shortening from you to $u$. the code switch occurs when she switches from a English opening and switches to Spanish to ask a question to then ask another question but in English. Although both languages are being implemented simultaneously, the syntactical integrity of the clause is kept. These results coincide with Zentella's (1997) study of a New York Puerto Rican community, in which the community associated English with power, wealth, and as the language of the privileged. Similarly, participants in this study could be using English within their text messages to establish that they too can manage or use this language of ever growing prestige. If this is true these text messages would also confirm Carroll's (2008) findings that Puerto Ricans use English on MySpace.com to appeal to a more prestigious network of people. Therefore, given the data provided in the study it is evident that English is being used within multiple environments and it is probably being switched back and forth with Spanish to convey different meanings that cannot be conveyed with solely one language. Consequently, it is not surprising to find out that the English language is also portrayed within many of the students' text messages. Although we cannot make any categorical assertions due to the nature of the study and the number of participants that answered the questionnaire, we can make some
conjectures based on the context of UPR Mayaguez regarding texting, language use, and how these differ according to the group in which the participant prefers to send text messages.

## Research Question 2

What are the differences in language use to text message by gender and proficiency level at UPRM?

## Texting and language use by proficiency level

One aspect of language learning and proficiency levels at UPRM is the fact that students who come through the Basic track are usually at a disadvantage in terms of the skills they need in order to pass their general education courses. Many of these courses are taught in English or the textbooks are in English and the classes are in either Spanish or English. According to Brusi ( 2009 ) students who come from the public school system are mostly first generation students who may lack the necessary academic skills to succeed at the college level in order to finish their degree. Thus, when it comes to language use, it is assumed based on the description of this population, that students do not use any English. However, students at the Pre-basic and Basic level coming from public schools used English and stock phrases when texting. This shows that this population uses both languages when communicating through text messages which could be considered an example of literacy and technology use outside the classroom. Students are learning and using English to communicate and technology plays a major role. They also communicate with friends and others who are using text-talk and English when texting and using other types of social networks.

Other factors regarding the use of both languages are the books at the university; most classes and labs have textbooks or manuals that are in English or Spanish. Students at UPRM take courses in both languages and in many cases they have to read and write academically in both Spanish and English. For instance, many science and engineering textbooks are in solely in English. Thus students literacy skills are also being recontextualized in their language preferences when texting. Thus, results from this study and the fact that students use English and Spanish to communicate when texting could be used in the language classroom to examine language use and how technology facilitates learning vocabulary and lexical items like stock phrases.

## Media influence and language use in text messages

Rubin \& Windahl (1968) argues that dependency on a medium or a message results when individuals either intentionally seek out information or ritualistically use specific communication media channels or messages. While their academic environment is flooded with English, there outside environment is also bombarded with advertisements and media influence in English. Students who go to clubs, bars, listen to the radio, or have roommates or neighbors who do, inevitably encounter a mix of English music. Such repetition of music often results in listeners memorizing, humming or even singing the lyrics to these songs. Finally, most restaurants have their menu with the translation of the item right next to it or it is written completely in English. The English language is not a hidden entity on the island, in fact most of the advertising strategies involve English or slight modifications to the word to make it slightly more Puerto Rican. This is something that students have emulated and may have possibly used as a strategy to incorporate within their own text messaging practices. Moreover, despite the fact that
students use English, their use of English in text messages in no way indicates that they are using English more then they are using their native tongue. Blau \& Dayton (1997) support this claim and indicate that because of the high prestige of the Spanish language, English will not displace Spanish in formal domains.

Overall the data collected presents several interesting and noticeable looking variables across all categories of language within domains and text messages. Although learning English, as a second language for occupational purposes is often a given and unquestioned assumption, given the fact that Puerto Rico is primarily a Spanish-speaking island, half of the participants reported they do "use" English at work. This also goes along with Blau \& Dayton (1997) as they indicated that English is being used to " one learns English to integrate oneself into the socioeconomically advantaged group (p. 142)". the question pertaining to language use within the workforce was at 50 percent for Spanish only and the other was for both languages. This seems to be a feasible reason as to why English would not be considered a threat within multiple different domains. Although both languages are present within all domains, the "home" domain is still unfazed by the emergence of second language speakers who are using English in a formal and informal manner.

## Gender differences

Females from public institutions had the most stock phrases out of all the participants of this study. Within their group of 20 participants, 9 of them had at least one token of stock phrases within their text messages. Most of these stock phrases were one or two words to express endearment or a type of sentiment. Some examples are:

Ya estas en tu home? (Are you in your home?)

Que vas hacer today? (What are you going to do today?)
Ok! Thank you! Good nite my love!
Ok baby!
These text messages, although they do use English, do not necessarily require a great deal of language proficiency. In fact people within Puerto Rico use these types of words or phrases on a regular basis, often to the extent that they have almost been adopted as the ever emerging and changing Puerto Rican Spanish vernacular as English is introduced into different media sources. Ling \& Haddon (2001) make the argument the use of the mobile phone allows females to be away from home but in contact at the same time, which in the past would not have been possible. According to the data from the questionnaire, female participants did not use English in ways that would require more train of thought. Some text message examples that support this claim are the following:

Me too !!
Tell meeeee!!!
Que nice tu!
My data also seems to suggest that male participants' language within text messages had a more informal tone and had messages, which in some cases portrayed more aggressive and explicit language when using English and Spanish. Some examples of these are:

## Always bitch

## Tipo coje el fuckin cell.

Infeliz prestame el libro de quim 2 morrow pa studial

A study done by Colley et al. (2004) found in e-mail writing men were less affectionate and had fewer personal inquiries than women. Similarly, within the current study, male participants used more English than women in the categories: code switching, text-talk and borrowing. Moreover, male participants from private institutions had more combined English tokens than any other group within this study. It seems to be the case that men use much more English in their text messages because of their constant engagement with media and to express a more informal and vulgar language. For example: "Tipo coje el fuckin cell. (Dude pick up your fucking phone)".

Colley et al. (2004) also asserted men use more offensive language in e-mails than women. Within the corpus of texts several males portrayed the characteristic of using "obscene" language. The first example was an exchange to refer to a location within the library:

Message received: En clase todavia. En q parte stas? Lao under o pussy? (Still in class. Which side are you on? Bad side or pussy side?

Message sent: In the pussy side $\ldots$ hahahaha
The second example refers to a friend of the male participant who missed an event he was hosting:

Message sent: Fulana pq no puedes ir si te dije por la mañana.
Siempre con tus fucking excusas. (friend why can't you go I told you this morning. You and your fucking excuses)

Both examples show male participants using bad words to express feelings towards a place or frustration towards someone else's action. Although the words: pussy and fucking are common English words, in Puerto Rico they are somewhat a part of the

Spanish vernacular, to the point where people give it a certain intonation when it comes to oral speech through these borrowed words. Puerto Ricans have "borrowed" many inappropriate words from the English language and made them part of Puerto Rican Spanish. This is most often the case among today's youth and this was exemplified in the various text messages that I analyzed. This is mostly the case for all borrowed words were English words have been brought into Spanish and Puerto Ricans have inflected certain words which were later accepted into Spanish dictionaries because they became of everyday use. Some examples, which have not yet been included in standard dictionaries but have been included in some online dictionaries such as Urbandictionary.com, are: janguear (hang out) printear (to print). These are just some of the examples of language use within text messages that further enhance notions about language and text messaging. Puerto Ricans are using a rich variety of English elements, but it seems to be the case that women are using tokens of English that do not require so much mixing of English, such as stock phrases and borrowing.

Most cases of stock phrases are words that are popular phrases that are picked up through media and other sources of entertainment. While many borrowed words are words that for most students they do not feel or know that they were derived from another language, stock phrases are known to be foreign. Males from private schools used tokens of English that were more elaborate than what females from public and private institutions expressed within their text messages. Males from the two most advanced groups accounted for more than half of the total male participation of English use, while females from the two lower level English groups accounting for the majority of the
participants within the female population to use stock phrases. For instance some examples of males elaborate messages are:

Ta bn mamita, I got test too, ps un dia despues del examen y dentro del lunes ;) cdt mamita !!!

Esta semana major, la que viene esta bien dificil para mi... btw I'm not mean you dwarf

Ok baby, acabamos de comprender q stamos n un lugar de gays, LOL
Jajajja... ya zeus y afrodita me lo habian dicho... pero no tengo enough money

Both female and male from private groups accounted for the majority of English tokens that were not stock phrases, unlike females from public, which accounted for the biggest amount of stock phrases within all four groups. Overall men used more cognitively demanding forms of English in their text messages than those used by the women, because the tokens elicited by the male participants used English that requires more thought and inflection within many of the text messages. With that stated it is also important to note that males did have more participants from Intermediate and Advanced which have a stronger background in the English Language than those from Pre-Basi and Basic tracks. This finding does not mean that men speak better then women, nor does it mean that men are cognitively advanced to the female participants, however, this finding does point out that there is marked difference between how males and female participants used English in their texts.

Palen (2002) claimed mobile technology has revolutionized how people function within their social networks (2002). Thus various studies show that the mobile phone creates opportunities to make and keep bonds with peers, which are stronger than without this technology (Bryant et al., 2006; Boase \& Kobayashi, 2008; Love, 2005). The results
of this study revealed that 95 percent of the participant's texts were sent to their best friends. Because students are mostly at the university and the bulk of their friends are on campus while also attending classes with them, it is feasible to think that language barriers ${ }^{7}$ are non-existent within a circle of friends. According to Grellhesl (2010), most teenagers reported using it to decide on a time to meet or call in order to have a conversation; most reported using texts for exact location purposes once they arrived at the destination previously agreed upon to meet another party. Students at the university level have assorted schedules, which allow texting to be swift and convenient for sending messages about locations or messages of endearment to initiate a further exchange of text messages. One thing is clear, students at UPRM are looking to communicate with their friends in multiple environments and English has served as a gateway to provide possibilities of interaction. An example of this is the following were the participant received a text asking what she was doing, while the participant was in class:

Message received: (friend) Que haces? (what are you doing?)
Message sent by participant: "estoy en class call u cuando salga ;)" (in class call you when I get out" wink smiley face)

This particular text is an example of what was mentioned previously on communicating within a classroom setting. Text messaging seems to be playing a role of temporary problem solver within an educational setting. Being able to communicate a message in a short fashion will postpone a conversation for after class or begin a thread of messages in the classroom, most importantly maintaining communication between both parties. Furthermore, sending text messages is far less intrusive in a classroom environment than

[^6]the more traditional form of picking up the phone and telling your friend that you will call them after class. Sending texts can be done quickly and often without being detected by the professor, which is just another justification for their use. This suggests that English was used here to communicate in a faster and more creative way. So intellectual notoriety and speed seems to be one of the reasons for using multiple languages within the classroom. Even though some portray understanding of both languages, it will be crucial to depict which groups are actually using both languages and which participants are incorporating English but not as linguistically challenging like the language use forms of code switching and text-talk.

## Research Question 3

## What is the relationship between language use and the domain choices made by students at UPRM to text message? <br> Domain use and texting

Participants within this questionnaire had many different uses of English within their text messages while reporting their use of English within other domains. All examples stemmed from public and private institutions and portrayed a number of differences in their use of English, specifically in regards to word/phrase choice. A category of interest was that of stock phrases. The majority of the groups between male public vs. male private vs. female public vs. female private had a significant number of stock phrases, in fact the only group that did not have stock phrases were males from private schools which had 1 less than borrowing. Thus, the most interesting aspect of this analysis was female participants who attended public institutions as they had a much higher instance of stock phrase use. This could be explained by the fact that stock phrases
do not require much thinking or train of thought as opposed to text messages involving more text-talk and use of English or more sophisticated uses of language which were used by males. The fact that females coming from public institutions used more stock phrases also support the argument that students coming from public institutions who in most cases happen to be women (Brusi, 2009), are still learning English or are at a lower proficiency level as opposed to their male counterparts and those who coming from private schools. There might be a relationship between topics and interaction between speakers that may help explain this. However, those questions were not within the scope of this study.

## Domain use by proficiency levels and gender: The home

Based on the data elicited by the survey, students at UPRM used more Spanish than English at home. Both students coming from public and private schools and from both the Basic track and advanced track report using more Spanish than English. This could be explained by the fact that parents have notions of preserving their mother tongue in the household. Zentella (1997) states "[c]hildren greeted me in English because they knew that I was a teacher, but they ran to call an adult in Spanish" (56). It's the not the case where the parents do not know the language, it's that they prefer using their mother tongue, which transfers towards their kids and their use or lack of English within the household.

## Domain use by proficiency levels and gender: The university

The results yielded by the data show that students use both English and Spanish at the university. A fourth of the participants surprisingly reported that they did not use

English within the University setting and yet were currently enrolled in an English classroom during the time of the survey. All sorts of materials and advertisements around the university are in both languages and it goes in line with their educational background. According to the questionnaire, those who reported using Spanish only the most within the university domain were males and females from public institutions. It could be that student's associate language with a specific class or classes from their major. So something to take into consideration for future research would be to know what is the participants' perception regarding what constitutes the university domain.

## Domain use by proficiency levels and gender: Friends

The findings from the domain regarding friends show that both English and Spanish were used with both males and females. Males from private institutions had 15 out of 20 participants account for using both languages, while females had 13 out of 16 indicate that they used both languages as well. On the other hand males from public schools reported that 9 out of 18 used both languages while the other half reported use of both languages. Females from public schools reported more use of Spanish-only than for both languages, 12 to 8 respectively. Thus, both female and male students from public schools responded either equally or under the 50 percent marker, while private school participants reported using both languages at over 75 percent.

## Domain use by proficiency levels and gender: The Internet

The domain of Internet was the most lopsided in regards to participants who indicated using both languages while on the Internet. Both public and private institutions responded strongly in favor of using both languages. Males from public had 14 out of 18 respond in favor of using both languages, while females from public had 17 out of 20.

Men from private education had 17 out 20 reported both languages, while females from private had 14 out of 15 . Most computers on the island are setup with English as their default language and can later be changed or translated if they choose to.

## Domain use by proficiency levels and gender: Work

Females reported using more English than males, yet the text messages revealed that they used more Spanish at home and at work. Therefore, the use of English did not transfer to their home and work domain. They reported the use of Spanish, somewhat equally to that of using both languages, which questions notions within the Puerto Rican community who emphasize that English is the language that will help them obtain a job. Most departments, including government affairs, English is not the language that they use to speak or write. Although in some cases it is optional, most documents have translated versions or Spanish is allowed to be the answer to any question on the documentation.

## Males and female participants and use of language by domain

Males and females reported using English and Spanish when texting in all domains. However, the text messages reveal that females used more stock phrases than males. Thus, there is a contradiction in the self-reported data and the actual text messages provided by the participants, This contradiction could be explain by the fact that males are exposed to the use of English by the media in more ways than females. For instance, males pick up language and expressions used in videogames, sports, movies and other types of media. Females also participate in these types of interaction but have not been as evident as the participation females in the aforementioned activities.

Even though both male and female participants had a significant amount of English within their text messages, it still was not enough to surpass the number of Spanish words within all the text messages. Out of all the participants only 2 participants had a text message that was fully in English and was not solely a stock phrase. Also, 27 out of the 74 participants had no instances of English within their text messages. That's almost the equivalent of one third of the participants. The data indicates that there is a big flux of English within UPRM students text messages, but is not yet to the point where it is overbearing enough to oust the Spanish language. Furthermore, because of the diversity of findings, chapter six will discuss some concerns as well as the significance of this study, while also addressing some possible pedagogical implications as well as highlighting some possibilities for future research.

## CHAPTER SIX: CONCLUSIONS AND IMPLICATIONS

Although the data collected might not represent all of the text messages and language use of Puerto Ricans across the island, I do think the data is representative of an important cross section: students attending college on the island. The results of the survey of 74 UPRM students indicate a number of findings and yet raise additional questions at the same time regarding the use of text messaging among Puerto Ricans. While this study highlights one important sector of language users and a key demographic: Puerto Rican youth. Among the results of this study, it is evident that Puerto Rican college students are using text messages as a viable source of communicating with primarily their friends. While the primary language used in these text messages is undoubtedly Spanish, many of the participants used linguistic borrowing from English, stock phrases in English, code switching both at the beginning, middle and end of texts as well as the unique form of text-talk.

It has become common knowledge over the years that most college age students have mobile phones. And it is with these phones that they are using them to communicate using text messages. However, most are incorporating different strategies of language and symbols to get across meanings that only those who receive and engage constantly with them could comprehend. It is fascinating that students can have 4 stock phrases in a row and it is still an intelligible and meaningful message, exemplified in the examples below.
"Ok! Thank you! Good nite my love!
Or how some use text-talk while code switching:
"Pa saber mi Corazon. U wanna come 2 my house? (To know my love, You want to come to my house?)

Overall, many students who participated in this study do know how to incorporate English within their text messages and they are doing it in a very clever manner. While it may have been the case that the use of English texts were further truncated or simplified, the fact of the matter is that Puerto Rican college students at UPRM are using English in their daily linguistic repertoire which inevitably includes text messaging. This is the case, especially when participants received a text message whose sender used words of English. The use of two languages within text messages could potentially portray to the receiver of the text that the sender can mutually communicate in multiple ways. This signals a skill that is useful and makes the sender appear a bit more educated or "in the know" which is important to maintain one's in-group identity (Carroll, 2008). One can assume that the same practices they are using in text messaging they are putting into practice in other types of CMC such as chatting, updating status and walls posts on Facebook and tweets on Twitter, which works to further solidify this type of language use as a legitimate and real form of communication.

As communities strive to become more efficient to face the challenges in this technologically advanced and every globalized world, it is undeniable that language and technology play a pivotal role. Even though it is playing a pivotal role within those who are using technology, it is not transferring towards participants' responses towards using English within their household. While there was evidence that English was being used along with Spanish in various domains such as the university, with friends, at work and on the Internet, Spanish still remains the language of the home and the primary language
used in text messages. Hence this study shows no indication of language shift away from Spanish toward the adoption of English.

As time passes by and older generations become more associated with technology and text messaging, their language might also modify which will eventually have them writing in text-talk and using more instances of English, which is still yet to be seen. Whether or not text-talk and additional aspects of code switching will become more common place within the linguistic landscape of Puerto Rico is difficult to predict, but the increased role of technology in society would seem to point to the direction that yes, language will continue to incorporate these new forms of language and at a rather alarming rate. This study also found that the participants almost exclusively reported texting with their friends or girlfriend/boyfriend. This finding gives a glimpse as to whom the primary audience is for text messages and raises makes one wonder if this will change as text messaging becomes a more popular medium of communication.

Overall, the male participants of this study used more authentic instances of English within their text messages, and when I mention authentic I mean that their constituents used more elaborate English than those females used within the texts provided. Despite more elaborate use of English, there is not a clear indication of whether this was a result of gender or whether it was a result of the proficiency level as more male students came from private schools and were consequently over represented in the higher proficiency level courses whereas the female participants in this study out numbered their male counterparts in the lower proficiency courses. Thus, no definitive findings or conclusions can be made as to the sophistication of text messages and the
actual amount of English being used between males and female students at UPRM in regards to their text messages.

English is becoming a powerful and worthy tool of having in the participant's repertoire. The data shows that at every English level, students are using English and they are using it to communicate in different ways. While the use of English might be continued to be politically tied within the larger discussion of language use in Puerto Rico, this study presents evidence of students using both Spanish and English interchangeably with little regard to the politically charged topic of using English on the island.

One of the other unique aspects of this study and its findings are that it serves as the first study to actually document and publish the variety of authentic text messages that makeup Puerto Rican language use in this medium. Categories of language use have included use on the internet, but text-talk has not been discussed in the literature on Puerto Rican language use. In addition to providing examples of this type of language use, it is also important to explore some of the ways in which text-talk and text messaging could potentially be used in the classroom to improve students understanding of language, both in Spanish and English.

## Pedagogical implications

According to Grellhesl (2010), by discovering what motivates college age students to use text messaging so frequently we can better understand their communication needs with one another as well as how to better communicate, and educate this generation of media savvy consumers so communication does not deteriorate among users who employ texting as a major medium. Some methods as to how this could
be incorporated within the classroom range from distinguishing informal from formal writing to pointing out gender differences within writing. Language teachers could use examples from texting in order to show students how formal language used in writing and speaking is not the same as the language use in texting. Because these practices are so common, students have incorporated them into their academic writing. This is one of the main reasons text messaging has been scrutinized. As an educator I have experienced first hand how students use terms from text-talk in their journals.

Educators could also use examples from the text messages to show learners how gender differences as well as cultural differences play a role when communicating via text messages. The teaching of English as a second language is a field where cultural differences can be portrayed within all types of learning materials such as books or educational videos. Furthermore, being able to be concise and save time in one's writing is a conscious endeavor that language users of text messages do on a daily basis. Teachers must make their students aware of the psycholinguistic processes that their students are already going through and get them to transfer that knowledge of language over into the more formal domain of school teaching and learning.

## Considerations for future research

Even though a great abundance of data and information was provided there is still much that can be done with this type of study. Researchers could possibly compare multiple groups from different English proficiency groups to see if the numbers would be more or less equivalent. The English groups could also be compared to equivalent English courses at other Universities of Puerto Rico to see if UPRM students are the ones
who use the majority of English or are other universities such UPR Aguadilla or UPR Rio Piedras using English. Not only using English but in what way are they using it.

In incorporating Crystal's (2001) definition of net speak as a "third medium" of communication, it would be interesting to discuss the differences between text-talk and other types of net speak or net speak in general. Such studies could potentially explore: A comparison and contrast of written language criteria across different types of net speak as defined by Crystal (e.g. email, online chat, gaming, texting. Another potential topic of future research could be the analysis of the metacognitive skills involved in the process of net speak, or more specifically, those involved in text messaging. This could be done through retrospection or think-aloud protocols in which participants reflect and verbalize the process involved in writing a text message. This would help to better understand the thought process of texting and how we can benefit from learning this type of writing skills.

Furthermore, a future study could involve perhaps another form of CMC. Perhaps a study could analyze the amount of English used within Facebook and what type of English is being used on each profile, something similar to Carroll's (2008) MySpace study. Since there are new types of messaging related services, it would seem pertinent to look at Blackberry messenger, MSN and other messaging apps for phones.

## Limitations

Although a great corpus of data was gathered and the information does correlate with other studies there were some things, which were not available because of time constraints.

A limitation of this type of study is that the students who participated in the study provided self-reported data regarding text messages. These messages were selected by the participants and may or may not have been exactly the last ten texts sent and received. However, due to the private nature of one's mobile phone it is difficult to think up an additional manner in eliciting this all-important data.

Although this study did not attempt to generalize, it is worth mentioning that generalizations are not possible within the scope of this study due to the fact that it was based on a specific population: students at UPRM taking English courses during their first year of study at the college level. However, it is also worth noting that this was the original intention and scope of the study.

Another limitation is the survey design itself. The data was itself not triangulated in the sense that students were interviewed nor were they compared to another specific study that was conducted in Puerto Rico. Conducting interviews with at least a cross section would have been an excellent idea and would have provided more validity and potentially a much more qualitative bent on the study. Thus, if this study were to be conducted again, I would suggest incorporating interviews or a possible focus group with participants to better understand what is going on in the mind of the students when they are writing their text messages and whether they consciously know about their use of borrowed words, text talk, stock phrases and even code switching.

## Concluding remarks

Text messaging is not formal language and will probably never be considered formal language. However, students at UPRM use it on a daily basis to communicate with their friends. This is a practice that is here to stay for the time being it looks like it
will continue expand as a viable form of communication. With that said, now that most mobile phones have connection to the Internet through a $3 \mathrm{G}, 4 \mathrm{G}$ or wi-fi networks; the sharing of information and ideas is essentially infinite and faster than ever before, but this connectivity raises questions as to whether text messages with their limited character space will be replaced by other, less restrictive forums to communicate with mobile devices such as: BlackBerry Messenger (BBM) and SKYPE application to fit the need of communicating through a short messaging system.

The use of text messaging and the unique modes of such use is something that needs to continue to be studied. Students and the Puerto Rican population continue to use this form and it needs to documented as it starts to become a more viable and common form of language use. Likewise, the Internet will continue to play a pivotal role in the way we express ourselves to our peers as we try to reach a level of understanding amongst our peers. One thing is clear no matter which language is being infused, the mother language is not being put in danger always expressed that which was most important to the person in their primary language and Spanish, even in a text-talk form is still the language that is privileged and most commonly used by Puerto Ricans.

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## Appendix A

## Encuesta sobre lenguaje y mensajes de texto

## I. Información Personal

Género: Femenino $\qquad$ Masculino $\qquad$
¿Qué año cursa? Marque con (X) 1 $\qquad$ 2 $\qquad$ 3 $\qquad$ 4 $\qquad$ 5 $\qquad$ 6 $\qquad$
¿Cuál es su concentración? $\qquad$
Curso de inglés que toma actualmente. Marque con (X) Pre-básico $\qquad$ Básico $\qquad$
Intermedio $\qquad$ Avanzado $\qquad$

## II. Preguntas respecto a educación

Indique con $\mathbf{X}$ el tipo de institución a la cual asistió durante sus años previos a la Universidad.

Si aplica a más de una, marque todas las que aplique

| Nivel de Estudio | Pública | Privada |
| :--- | :--- | :--- |
| Elemental |  |  |
| Intermedia |  |  |
| Superior |  |  |

Indique lugares donde cursó previo a la Universidad (Ejemplo: Elemental (Bayamón o Nueva York)

| Nivel de estudio | Lugar |
| :--- | :--- |
| Elemental |  |
| Intermedio |  |
| Superior |  |

## III. Idiomas empleados en el salón de clase universitario

Indique con $\mathbf{X}$ el lenguaje más utilizado en las siguientes áreas de instrucción universitaria.
Si aplica a mas de una, marque todas las que aplique.

|  | Inglés | Español | Otros |
| :--- | :--- | :--- | :--- |
| Lecturas asignadas |  |  |  |
| Asignaciones |  |  |  |
| Discusión en clase |  |  |  |
| Trabajo en grupo |  |  |  |

IV. Uso de inglés versus español en diversas actividades del diario vivir.

Marque con X Si aplica a más de una, marque todas las que aplique.

| Ambiente | Siempre español | Siempre inglés | Ambos |
| :--- | :--- | :--- | :--- |
| Hogar o hospedaje |  |  |  |
| Universidad |  |  |  |
| Con amistades |  |  |  |
| Internet (Facebook, <br> Twitter, email) |  |  |  |
| Trabajo (si aplica) |  |  |  |

## Por favor seguir en la página de átras

## Uso de celular/ mensajes de texto

¿Por cuánto tiempo aproximado ha tenido su teléfono celular? Sea lo más específico posible.
Menos de 2 años entre 2-4 años entre 5-6 años entre 7-8 años 9 o más
¿Qué tipo de teclado usa para enviar mensajes de texto: QWERTY o tradicional? (circule el que
usa)


Aproximádamente, ¿cuántos mensajes de texto envía y recibe por día? (Circule)

$$
\begin{array}{lllllllll}
0 & 1-5 & 5-10 & 11-15 & 16-20 & 21-25 & 26-30 & 31-40 & 40+
\end{array}
$$

¿Quiénes son los receptores más comunes de sus mensajes de texto? (Circule no más de 2 opciones, si aplica).

Mejores amig@s Padres Familiares Novi@/Jev@ Compañer@s de trabajo Si usas inglés en tus mensajes de texto, ¿por qué lo utilizas en lugar del español?

Por favor provea los últimos 10 mensajes de texto que ha recibido o enviado. Subraye si fue enviado o recibido e indique la relación que tiene con la persona de la que recibió o a la que envió el mensaje.
Ejemplo1. Enviado Recibido _Amigo_
Enviado Recibido $\qquad$ : Ehh no estoy sure, dame un call a ver, ttyl.

1. Enviado $\qquad$
Recibido $\qquad$
2. Enviado $\qquad$
Recibido $\qquad$
3. Enviado $\qquad$
Recibido $\qquad$
4. Enviado $\qquad$
Recibido $\qquad$
5. Enviado $\qquad$

Recibido $\qquad$

## Appendix B

## Descripción de la Investigación

Edward G. Contreras Santiago<br>Candidato a Maestría<br>Facultad de Artes y Ciencias<br>Departamento de Inglés<br>Maestría en Artes en Educación en Inglés

Titulo de la investigación: "Language use in Mensajes de Texto by UPRM students"

## Descripcion de la investigación

Actualmente soy estudiante graduado de la Universidad de Puerto Rico en Mayagüez (UPRM) y candidato al grado de Maestría en Educación en Inglés. Como requisito de graduación he decidido escribir una tesis para la que realizo esta investigación. Este estudio explorará las alternancias del lenguaje que están usando los estudiantes de UPRM, concentrándose en inglés y español.

A continuación le ofrezco una descripción del estudio que pretendo llevar a cabo para facilitarle su decisión de participar en esta investigación. Su participación en el mismo no es obligatoria, y negarse a participar o terminar su participación en cualquier momento no presenta riesgos hacia su persona o el investigador. El tiempo necesario para completar este cuestionario es de 10-15 minutos.

Los datos para esta investigación serán recopilados mediante cuestionarios que serán llenados a principios de marzo. El proceso de recopilación y tabulación delos mensajes de texto se llevará a cabo en marzo. Todo dato recopilado será utilizado únicamente por el investigador durante el proceso de análisis y no podrá ser accesado por ninguna otra persona que no esté autorizada por el/la participante. Está en todo su derecho de hacer cualquier pregunta antes, durante y después de realizar el estudio. Una vez finalizado, estaré a la disposición de compartir mi análisis de datos con quien lo solicite. No existen riesgos asociados a su participación en este estudio. Su participación será significativa al contribuir al estudio del lenguaje y género. Este estudio será utilizado para propósitos de mi tesis, pero podría ser publicado o presentado en conferencias profesionales. Reitero que mantendré su confidencialidad en todo momento.

## Appendix C

## Hoja de consentimiento informado ${ }^{8}$

Edward G. Contreras Santiago
Candidato a Maestría
Facultad de Artes y Ciencias
Departamento de Inglés
Maestría en Artes en Educación en Inglés

## Hoja de consentimiento informado

Título de la investigación: "Language use in Mensajes de Texto by UPRM students"

- He leído detalladamente la Descripción de la Investigación y la he discutido con el investigador. He tenido la oportunidad de hacer preguntas acerca de los propósitos y procedimientos que esta investigación conlleva.
- Ha sido aclarado y reconozco que mi participación en este estudio es completamente voluntaria. En cualquier momento de la investigación puedo negarme a participar o retirar mi participación sin ser cuestionado y sin que haya alguna complicación. Tanto mis derechos como estudiante de esta institución como mi relación con la institución o el investigador, no se verán afectados por mi decisión.
- Estoy conciente de que el investigador puede terminar mi participación en este estudio en cualquier momento.
- Si durante el estudio surgiese información importante que pueda afectar mi deseo de continuar participando, el investigador me lo informará.
- Cualquier información personal que sea tomada o derivada a través de este proyecto podrá ser divulgada únicamente con mi consentimiento.
- Si en cualquier momento surgen dudas sobre esta investigación o mi participación en la misma, puedo contactar al investigador, Edward G. Contreras (edward.contreras@upr.edu), quien gustosamente aclarará las mismas. El investigador me ha provisto su información para contactarlo de ser necesario.


## Firma del particpante

[^7]
## Appendix D

UNIVERSIDAD DE PUERTO RICO EN MAYAGÜEZ
DECANATO DE ASUNTOS ACADÉMICOS
COMITÉ PARA LA PROTECCIÓN DE LOS SERES HUMANOS EN LA INVESTIGACIÓN
(CPSHI/IRB-- 00002053)
23 de febrero del 2011

Edward G. Contreras
P.O. Box 1740

Cabo Rojo P.R. 00623

Estimado estudiante:
El comité revisó su proyecto: "Language Use en Mensajes de Texto with students at UPRM" y luego de evaluar la documentación sometida le aprueba el mismo.

Recordándole que esta aprobación será por un año, hasta el 23 de febrero del 2012.

Atentamente,

Dafne Javier
Presidenta Interina
CPSHI

## Appendix E

List of tokens with Code Switching

- Mira, dime si me puedes ver online en chat de Facebook pq hoy pusieron Internet en mi apt y kier over si funciona
- Mi amor estoy al frente de your house
- Baby voy a the church te llamo cuando salga TAM !!
- Ta bn mamita, I got test too, ps un dia despues del examen y dentro del lunes ;) cdt mamita !!!
- Si es así de straightforward pues en verdad no es tan difícil.
- Estoy en class call u cuando salga ;)
- Soy super special !!
- Chekeate el trade q te mande rebounds por assists.
- Ya le di drop a brooks ya lo puedes coger
- Not much, te iba invitar pa vega baja peor veo que tienes mucho trabajo
- No tengo nada! I can go! A que hora?
- Ya estas en tu home?
- Lokis! Algún plan pa hoy, Haha estoy super bored.
- Pa saber mi Corazon. U wanna come 2 my house.
- A las 9:30 conference pa hablar sobre el weekend
- So I'll tel you the truth... estoy adicta a ti...
- Esta semana major, la que viene esta bien dificil para mi... btw I'm not mean you dwarf
- Loca no se que hacer. Estoy super confused. I just want to forget him.
- Ps chillin working to el time
- Estoy in class
- John soy yo de tu clase de Psic. What's up?
- Estas en la Asamblea? It is awesome!
- Creo que me podras ver, pero tengo que study.
- Jajajja... ya zeus y afrodita me lo habian dicho... pero no tengo enough money
- Jajaj that's not easy... voy jugar loko deskiciadamente
- No klases los viernes. That's exelent


## Appendix F

List of tokens with Text-talk

- Hey $b b$ how you doing
- Infeliz prestame el libro de quim 2morrow pa studial
- Para eso estamos bby. Call me later love you...
- Playing pool @RUM
- Is the blood drive $4 u r$ sister 2 day
- Werru?
- Pa saber mi Corazon. $U$ wanna come 2 my house
- Lol (laughing out loud)cogela brega
- I am lost. . lol
- $\ldots B T W$ (by the way) I'm not mean you dwarf!!
- ... q vas hacer hoy? Te busco par air a la iglesia? Love $u$ blessings!
- Te envio las pics por email
- Do $u$ have Internet
- $U$ welcome and happy b-day again $)$
- Awww! Pq? love $u$ too babe
- Se me quedo algo y tuve que virar, llego en zoish
- No not rlly lolz so how's my cutie
- Was it cuz I woke you upz.
- Miss $u$ all
- Uff Lol, hace rato!! Yeah...
- Cool Yeah! Mmm dale paka... Bendicion TNK $U$


## Appendix G

List of tokens with Stock Phrase

- Vamos para el town?
- Te quiero baby
- Ok baby, acabamos de comprender q stamos n un lugar de gays, LOL
- Te quiero baby... Chiquita preciosa te quiero te quiero ;)
- Jejeje no, nos vemos en el weekend
- Mi amor donde tu estas? Llama plis te amo bye
- Me too !!
- Tell meeeee!!!
- Cool!!!!
- Cool! Tengo unas cuantas cosas que contarte, te veo despues.
- Ahora va empezar el game
- Me too mi amor
- Ok baby
- Ditto sorry toi muy llena pero grax anyway
- Toy aqui pasandome el blower jijiji
- Love u babe! Good nite
- Good Morning primero que todo... necesito un favor, tu me prestas tu laptop
- Gossshh! Thank You! Te debo como mil dreamcatchers!
- Terminando de ver una movie pa despues estudiar
- Mira ven a la biblio para que hagas lo de la clase de Bio conmigo !! Please! Please!
- Eieii dejate de mielda y dame mi milkyway!!
- Baby estoy afuera en el carro
- Sip! Yo no se a que hora me voy todavia :S maybe 5pm...
- Siiiii I'm hungryyyyyyyyy!
- Yes!
- Llegue loothers ! (perhaps the person meant losers)
- Ya lo hize y ella dijo perfect y otra wao
- Brett Favre inactive
- Nothing
- Nice ya llevas 287 jaja -
- U welcome and happy b-day again
- Ok me too
- Awww! Pq? love u too babe!
- Wee! Dame un call
- Cool! Yeah! Mmm dale paka... Bendicion TNK U
- Para eso estamos bby. Call me later love you...
- Yes, why?
- "Name" merry Xmas
- Randommm
- Love u babe ! good nite
- Ok! Thank you! Good nite my love !
- I am lost... lol


## Appendix H

List of tokens with Borrowing

- ¿ ya estas ready?
- Y se habian dejado. Fue x chat Antes de decirte lo de papa
- Fulana pq no puedes sit e dije desde por la mañana, Siempre con tus fucking excusas
- Hermana check el periodico
- Okk dame un break
- Jajaja dale lko t perdiste 1 chat de trades
- Toy en BK, dame un break en el college
- Que nice tu!
- El examen ta chillin... si tudiaste ta bastante facil
- Ya toy ready :D
- Pss nice algooo ahii... vamo a ver que dice
- Charraaaa!!!! Conseguiste parking???
- En el fb chat !!!
- Tipo coge el fuckin cell
- Nop estoy en un party n casa de $\qquad$
- Me vas a hacer llorar con tu status : jaja...


[^0]:    ${ }^{1}$ A large public green area

[^1]:    ${ }^{2}$ Denoting the standard layout on English-language typewriters and keyboards, having $q, w, e, r, t$, and $y$ as the first keys from the left on the top row of letters.

[^2]:    ${ }^{3}$ Share a room or house or flat, esp. a rented one at a college or similar institution

[^3]:    ${ }^{4}$ Some phones have the ability to use both keyboards such as the (sidekick and some Samsung and LG models).

[^4]:    ${ }^{5}$ The number underneath the total represents the amount participants and not the number of tokens.

[^5]:    ${ }^{6}$ The public school category has 36 participants and private school has 38 participants

[^6]:    ${ }^{7}$ In this case barriers refers to any restrictions towards language. Friends do not need to avoid expressing themselves within their own circle.

[^7]:    ${ }^{8}$ This document is an adaptation of an Informed Consent Form developed by Zaira Arvelo, an MAEE Candidate of the English Department at UPRM

