

**UNIVERSIDAD COMPLUTENSE DE MADRID**  
**FACULTAD DE FILOLOGÍA INGLESA**  
**DEPARTAMENTO DE FILOLOGÍA INGLESA**



**TESIS DOCTORAL**

**The online glocal identity of turkish native speakers on  
Twitter: a focus on age and gender**

MEMORIA PARA OPTAR AL GRADO DE DOCTORA

PRESENTADA POR

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Madrid, 2018

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**La Identidad Glocal de los Hablantes Nativos de Turco en Twitter:  
Edad y Genero**

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Bajo la dirección del doctor

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To Şükran Kalınođlu

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## **LIST OF ABBREVIATIONS AND SIGNS**

CMC: Computer-Mediated Communication

CS: Code-switching

>: More than

<: Less than

## CHAPTER 1: INTRODUCTION

Language is the basic means of human communication. Beyond instrumental significance, it is the primary building block of identity, culture and society. Language defines how people express themselves, how a person perceives and gives meaning to the environment. Languages are living legacies of known and unknown ancestors. These organisms carry traces of generations going way back. Speakers express themselves, discuss with others and label the world through the frame of language. Thus, language shapes the identities of its users and defines our relation to others. Yet the relationship between language and identity is not unilateral, as identity and language exist in intrinsic and interactive accordance.

Similar to the concept of identity, there are not any established features to name a communication system such as language. It is still a question of whether a verbal communication tool can be considered as a dialect and or as a distinct language. Also, here it can be argued that the enforcement of an established political and economic organisation, would be the determining factor for a language to be recognised by others. In this study, a broad and encompassing definition of language will be utilised, namely, language as a communication system within a community.

English is used as an international and global language and has become a global *lingua franca* and the preferred language of online communication, science and technology, popular culture, mass media and business (Rosenhouse & Kowner, 2008). Its role in identity construction in computer-mediated communication cannot be underestimated. In Turkey, English is not an official language but it is used in international communication and business (McKay, 2002), and is commonly taught as a second language (Bayyurt, 2006; 2012). English has an important role in Turkey as it connects the country to the outside world. This international projection is further enhanced by the widespread use of the Internet, not only in professional settings, but also in social sites and for interpersonal communication.

Regarding computer-mediated communication, today, there are 3.77 billion internet users, 2.80 billion social media users, 4.92 billion mobile users and 2.56 billion mobile social media users worldwide (Kemp, 2017). How can someone differentiate oneself from this huge pack and stand out or do the opposite, show that they belong to a specific community? Without a doubt, the use of language in computer-mediated communication has an important effect on online self-

presentation. When people speak, they do not only exchange information but also give information about themselves and how they relate to the world (Northrup, 2013). Is the way teenagers and middle-aged adults, and women and men use language on social networking sites to project their online global and local identities the same or different? This research will attempt to answer these questions for native speakers of Turkish.

It is evident that language plays an essential role in online identity presentation in computer-mediated communication. Prior studies have noted the importance of language in computer-mediated communication and the electronic revolution (Crystal, 2006) with the new technologies but little importance has been given to the Turkish language in computer-mediated communication. This study attempts to fill in this gap in the literature by analysing Turkish people's posts on Twitter. Twitter is a social networking site which asks users to answer a question ("what's happening?") at that very moment (Stone, 2009). In Turkey, Twitter is one of the most popular websites with 17% of Turkey's population (Kemp, 2016).

In social networking sites, it is possible to create a desired identity. Age, gender, profile photos, friends, hobbies, interests, colleagues, memberships in network groups, privacy control settings, nicknames, communications with other members, language used, style of writing, vocabulary, topics, all of these contribute to the establishment of an online identity on social networking sites. In these sites, people have the freedom to shape themselves and construct a desired identity. This research focuses on online identity on Twitter by analysing the language used, with the underlying assumption that using non-standard forms of writing and switching to another language is a way of showing online identity. Speakers have multiple identities and different languages enable speakers to project different identities (Myers-Scotton, 2006). Furthermore, people communicating online imagine that they have a global audience and they prefer to express themselves in English rather than in their local languages (Seargeant, Tagg, & Ngampramuan, 2012). In other words, when native speakers of Turkish use English while communicating online, they project their global identities and address their global audience.

Previous research (Erdogan & Yaman, 2007; Temur & Vuruş, 2009; Tastan, 2012) has showed that Turkish people use English words while communicating online, and this has caused changes in the structure of the Turkish language. This use of English by native speakers of Turkish can be explained by language contact phenomena, as when people speaking different languages are in contact regularly, they develop common linguistic features (Oxford



Dictionary, 2017a). In contact phenomena, terminology is one major issue, particularly regarding the exact definition of phenomena such as “lexical borrowing” and “code-switching. In this research, words taken from English and used in Turkish are taken as lexical borrowings and English phrases used in Turkish posts are analysed as cases of code-switching. Until now, little importance has been given to the use of English by Turkish people. Tastan (2012), however, showed that borrowing English words and code-switching to English is a common practice among university students, but in her study age and gender were not taken into account. The research documented in this study thus for the first time attempts to explore how the variables of age and gender affect the use of English in computer-mediated communication by Turkish users. To our knowledge, this is the first study to examine lexical borrowing from English by speakers of Turkish in online communication, including types of lexical borrowings; cultural and core borrowings, borrowing lexical items; nouns, verbs and other items, code-switching to English, types of code-switching: inter-sentential code-switching and intra-sentential code-switching with respect to age and gender.

Apart from the presence of language contact phenomena in global settings, computer-mediated communication in any language frequently involves a special kind of language known as “Netspeak”. Netspeak is a term introduced by David Crystal (2006) meaning the spoken language written down. Netspeak refers to the digital form of any language, therefore Turkish Netspeak is the digital form of the Turkish language. The use of Netspeak shows group membership and identity, as it changes from group to group. In this paper, I will argue that using Turkish Netspeak is also a way of projecting an online local identity and local group membership. In fact, previous research (Erdogan & Yaman, 2007; Temur & Vuruş, 2009; Tastan, 2012) showed that Turkish has new spelling conventions caused by computer-mediated communication; Turkish people use Turkish carelessly, which leads to new expressions and patterns emerging and spreading via the Internet. Turkish people, for instance, omit vowels and consonants, repeat characters to make emphasis, use abbreviations and lexical shortenings, and substitute Turkish characters with English ones while communicating online. Tastan (2012) shows that Turkish Netspeak is common among university students, and 86.55% of the tweets in her study display non-standard spelling features. However, there is no previous study investigating the use of non-standard spelling and abbreviations with respect to age and gender. This research for the first time aims to explore the differences between different age groups in Turkey and how they use Netspeak while communicating online. Another goal is to explore the

differences between females and males, focusing on how they use Turkish Netspeak on Twitter. Finally, correlations will also be calculated between age and the use of Netspeak and English, if there is any.

A further issue worth being considered when looking into the connections between computer mediated-communication, identity construction, and linguistic choices in global settings, is that of preferred or recurrent topics. Only one previous study, to our knowledge, (Tastan, 2012) has investigated the content of posts on Twitter to find out in which discussion topics Turkish people prefer using English instead of Turkish. Tastan (2012) has demonstrated that Turkish university students tend to a) borrow English words the most when they are posting about the Internet and technology, followed by education and entertainment; b) code-switch to English related to entertainment, followed by internet and technology and education c) send posts in English mostly when the topic is entertainment, followed by quotations and the expression of emotions. This research suggests that the university students in Tastan’s (2012) study were influenced by the English language mostly through entertainment followed by internet-technology and education, and that there may be a lexical gap in the Turkish language due to technological and cultural changes. The present research, for the first time, attempts to explore the contents of the posts in which Turkish people prefer using English instead of Turkish, with particular attention to the socio-linguistic variables of age and gender.

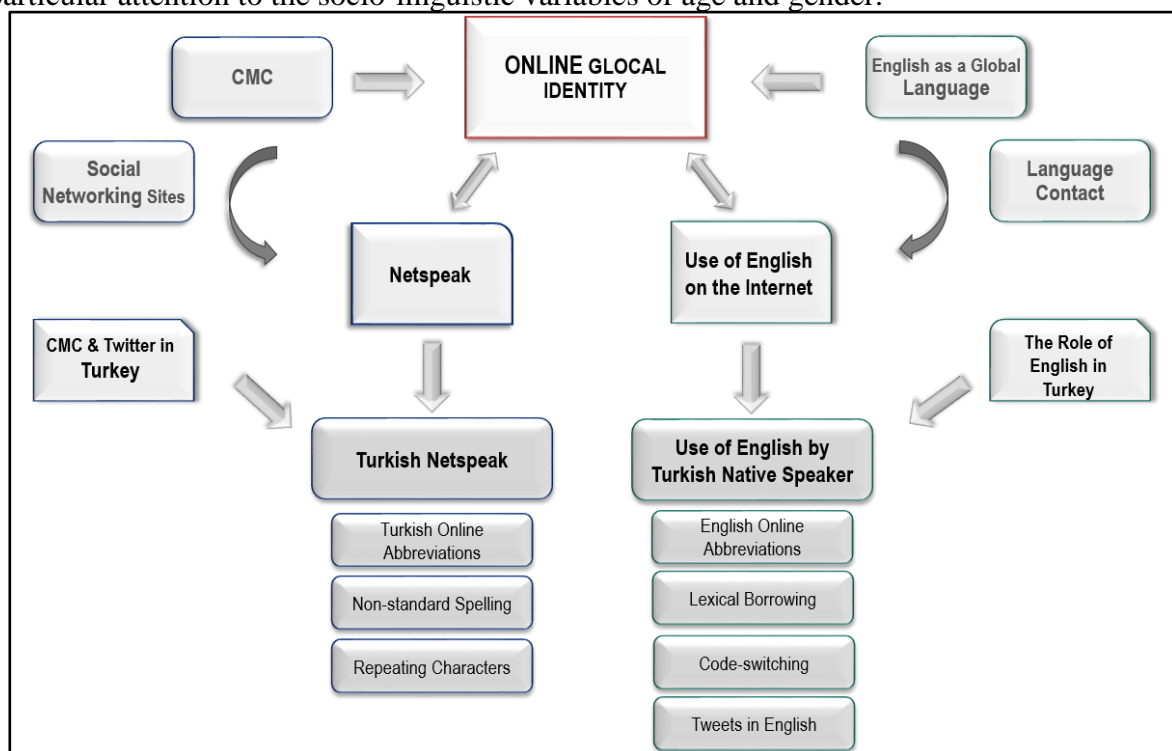


Figure 1: Research concept map

Overall, this paper is also based on the underlying assumption that Turkish people use English to project a global identity and similarly use Turkish Netspeak to project local identities. In order to cover both global and local, in this paper the term “glocal” will be used. In Figure 1, the concept map of the research is presented. This concept map simply shows how “online glocal identity” is connected to the concepts and ideas mentioned above.

Most existing research on the Turkish language in computer-mediated communication has been based on relatively small samples and does not take the variables of age and gender into account. This research involves 80 participants, 40 males and 40 females. All the tweets they posted for three months were taken from their Twitter homepage. For this study, around 10,000 tweets were thus copied from the participants’ homepages, in order to analyse how these Turkish native speakers use Netspeak and English on Twitter with respect to age and gender in the projection of their online glocal identities. In order to achieve this goal, the following research questions are addressed.

1. Do the variables of age and gender affect the use of Netspeak by native speakers of Turkish in their tweets in Turkish? If so, can this be connected to different online glocal identity construction concerns?

What are the effects of computer-mediated communication on written Turkish with respect to age and gender?

2. Do age and gender have a bearing on the use of English by native speakers of Turkish as a strategy to project a certain desired online glocal identity on Twitter?

If so, in which ways is this reflected in language contact phenomena such as lexical borrowing and code-switching?

3. Do the variables of age and gender also affect the type of topics over which native speakers of Turkish resort to English in their tweets?

What are the routes of dissemination of English in Turkey with respect to age and gender?

In order to ascertain the answers to these research questions, the following hypotheses were elaborated as a first step, and on the following premises:

1. Turkish people use English and Netspeak as a strategy to project a certain desired online global identity on Twitter. There is a correlation between age and the use of English and Netspeak by native speakers of Turkish on Twitter: Younger Turkish native speakers will use English and Netspeak more frequently than older Turkish people.

The younger generations are more familiar with non-standard writing in computer-mediated communication. Online abbreviations are created and used to save time and have become a trend among the younger generation. Consequently, in this research, the use of Netspeak is expected to be higher among the younger generations and expected to lessen as the age of the participants increases. Similarly, the use of English is expected to be higher among the younger generations and expected to lessen as the age of the participants increases. The younger generations will use English more often because they are expected to imitate English speaking communities to have more prestige, and to gain approval and social status.

2. There is also a correlation between gender and the use of English and Netspeak by native speakers of Turkish in their tweets: females are expected to use English more frequently than males, while males are expected to use Netspeak more often than females.

According to Xia (2013), women follow the rules of use of language and pay more attention to the use of standard language than men do. Men write carelessly, do not pay attention to the rules of the language use and use more non-standard forms than women. In this study, consequently, men are expected to use Netspeak more than women. On the other hand, women are expected to use English more than men because English is seen as the language of modernity (Myers-Scotton, 2006). Women aiming to be socially superior, to have more prestige, and to gain approval and social status, are expected to imitate English speaking communities.

3. Turkish native speakers are expected to use English more frequently in their tweets related to internet and technology.

English terms related to technology are new concepts and, as in many other languages, they do not exist in the Turkish language. In general, it is expected that Turkish people take the new terms from English instead of creating their Turkish equivalents. In this research, Turkish people are expected to use English terms related to technology more than other topics because of their need for new terminology due to technological changes.

In order to answer these research questions, the present dissertation is divided into five chapters. After a brief introduction, Chapter 2 lays out the theoretical framework. This chapter is devoted to outlining the major ideas, introducing the key concepts of the thesis, and presenting a review of the most relevant research in the field. In Chapter 3, the data collection procedures and participant selection are presented, followed by a detailed account of the research method and various steps that were undertaken while handling the data. Chapter 4 presents and discusses the findings with graphs and tables and examples gathered from the data. Finally, Chapter 5 summarises the main findings and contributions, and presents the limitations of the study and directions for future research.

## **CHAPTER 2: LITERATURE REVIEW**

The literature review of this study will be presented in four different sections. The first section (2.1) will deal with online glocal identity, English as a global language and the role of English in Turkey. The second section (2.2) will explain language contact phenomena namely; lexical borrowing, and code-switching. The third section (2.3) will deal with computer-mediated communication. In this section, types of computer-mediated communication, particularly Twitter and social networking sites in Turkey, will be presented. Finally, section 2.4 is concerned with the use of the Turkish language on the internet, with particular attention to Netspeak.

### **2.1 Online Glocal Identity**

The objective of this study is to investigate how Turkish native speakers project their online glocal identities with respect to age and gender while communicating online on Twitter. In this section, firstly the relationship between online identity and language contact phenomena – lexical borrowing and code-switching – will be explained. Secondly, the relationship between online identity and non-standard forms of online writing – Netspeak – will be briefly reviewed. Finally, the term “online glocal identity” will be presented.

People are exposed to many diverse cultures as the world becomes more globalised. Earley and Ang (2003, p. 59) define cultural intelligence as “a person’s capability to adapt effectively to new cultural contexts”. The higher cultural intelligence people have, the more likely they will interact and build relationships successfully when interacting with individuals from different cultural backgrounds (Earley & Ang, 2003). The Internet is multicultural, and therefore increases the exposure to other cultures. People adapt their local cultures to this multicultural environment with the language they use. Cultures are different; and so are languages. Communication could be easier if everyone spoke the same language, but most groups do not want to lose their own language because each language does social work for its speakers. More specifically, languages are important in the indexing of group identity (Myers-Scotton, 2006). Everyone speaks in a different way and has a different style. The way we talk depends on who we are; on social identity features, such as age, gender, education, and so forth; and on our life experience. But language not only reveals identity (Sebba, Mahootian, & Jonsson, 2012);

rather, social identities emerge when people with different cultural values interact. As David Crystal (2004, p. 17) states:

“We want to express our identity through language and we want to communicate intelligibly through language. We want to be different and we want to be the same.”

(Crystal, 2004, p. 17)

Furthermore, Hornberger (2002) holds the view that national identity and the ideology of “one language-one nation” is not the only one available in the world. According to Myers-Scotton (2002), speakers have multiple identities, and their linguistic choices project one identity, the one deemed most appropriate for a particular exchange, over others that might have been chosen. Speaking different languages enables the speaker to convey a different identity; in the same way, as different linguistic choices can be a sign of the identity of a person or a group (Myers-Scotton, 2006). Speakers choose their linguistic codes effectively to achieve particular goals in communication. Besides, as Giles (2001) states speakers are not unidimensional and can signal multiple identities with multiple goals. Language is a tool for identity co-construction in interaction, and it is a property of language rather than a function (Kristiansen & Dirven, 2008). As Frank Polzenhagen and René Dirven (2008, p. 243) explain:

“...the relation between language and identity is that of an interchangeable metonymy: Language for identity and identity for language, respectively.”

(Polzenhagen & Dirven, 2008, p. 243)

In language contact phenomena, *code-switching* is the ability of bilinguals to alternate between languages or dialects effortlessly (Bullock & Toribio, 2009) and *lexical borrowing* is defined as the phenomenon of transferring words from a donor language to a recipient language (Thomason, 2001). Language contact phenomena will be explained in detail in section 2.5. People can signal who they are by using different linguistic varieties as well as by the ways in which they use them. The language patterns of individuals, such as borrowing words from other languages or switching between languages, are ways of projecting online identities (Myers-Scotton, 2006). Henceforth, code-switching between two different languages shows bids for memberships to both cultures and dual identities. Switching between languages is usually an unconscious activity but, when done consciously, it may “assert power; declare solidarity; maintain a certain neutrality when both codes are used; express identity; and so on”

(Wardhaugh, 2006, p. 110). Moreover, Myers-Scotton (1993b) claims that individuals use code-switching to create a specific identity no matter whether the code-switching is done unconsciously or consciously.

In computer-mediated communication, which will be explained in section 2.4, lexical borrowing and code-switching are common linguistic practices (Androutsopoulos, 2013). Computer-mediated communication is different from face-to-face communication, since in computer-mediated communication non-verbal information – such as facial expressions or intonation in speech serving to identify membership of a group or the emotions and identity of the speaker – does not exist (Monk & Watts, 2000). In this study, the data were gathered from the social networking site Twitter. Social networking sites are online platforms that are designed to help people communicate, build social networks or social relations. Social networks such as Myspace, Facebook, Twitter and LinkedIn give users the opportunity to connect with people who have similar backgrounds, personal or career interests (Cambridge Dictionary, 2017a). On social networking sites, people are free to choose the way they want to present themselves. Although on social networking sites some aspects of identity age, gender and nationality are static, and other aspects work, family, education, friends, colleagues, family, and so forth are defined by social domains and relationships. Furthermore, hobbies, interests and social networks, which are some forms of identity, may change from time to time, which indicates that these properties of identity are open to change (Sergeant & Tagg, 2014).

In computer-mediated communication, the *economy principle* is the process of using fewer keystrokes to save time and energy (San, 2009). In online language, for the sake of speed, abbreviations and lexical shortenings are employed, and, in order to add feelings to the words, emoticons are also used. According to Döring (2002) the economy principle not only saves time and energy but it is also a way of showing online identity, as people sharing the same social knowledge may understand and use short forms of words or phrases. In other words, lexical shortenings are short forms created by users indicate that these users belong to the same community and show in group identity (Sveningsson, 2001). David Crystal (2004), uses the term Netspeak for this new variety of online language which has non-standard formations and is a combination of abbreviations, acronyms and emoticons. The use of non-standard formations, slang and jargon changes from group to group and the use of Netspeak can thus be connected to issues of group membership and identity.



People constantly construct and negotiate their online identities and, depending on the context, they present themselves in different ways to address a diverse and global audience. The audience on social networking sites is usually perceived as global and public, and affects the way people negotiate and co-construct their online identities (Seargeant & Tagg, 2014). Currently, English is used as an international and global language and has become the preferred language for online communication (Rosenhouse & Kowner, 2008). English as a global language will be explained in section 2.2. People who are communicating online to reach their imagined global audience, actually often code-switch to English. Barton and Lee (2011) and Seargeant, Tagg, and Ngampramuan (2012) state that people express themselves in English while communicating online to reach out to a global audience, even if they normally do not express themselves in English to translate their local cultures and identities. Crystal (2003) also states that local languages have the function of expressing local identities and English is the primary means of showing a global presence. Using English instead of a local language projects one's *glocal identity* which links both local and global in order to address an imagined audience (Lee & Barton, 2011). However, researchers use the terms "glocal identity" (Soldatova & Geer, 2013) and "online identity" (Marwick, 2013; Huffaker & Calvert, 2005) separately. In this research, the term "online glocal identity" will be used, since participants on one hand use non-standard forms of the Turkish language to show group membership with local groups, and on the other hand borrow lexical items from English and code-switch to English to show their global identities. Besides, online identity is not only global but also local. In summary, non-standard forms of writing, borrowing words from English, or switching to English to reach a global audience are ways of showing the online glocal identity of individuals communicating online.

### ***2.1.1 English as a Global Language***

In the previous section, it was explained that people communicating online prefer English to reach out to an imaginary global audience. Instead of using their local languages, they use English to project global identities. In this section, the reason why people communicating online prefer English to show their global identities will be explored.

There are about 7000 different languages in the world today and this does not include dialects (WALS, 2013). In order to explain the challenge of communicating across these linguistic differences, there have been four approaches; remaining monolingual, multilingualism, creation of a contact language, and the adoption of a lingua franca (Ricento, 2010). *Lingua franca* is defined as the language that is adopted as a common language between speakers who do not share a native language or dialect, to make communication possible (Oxford Dictionary, 2017b). Today, English is used as an international or global language among people with different backgrounds; nations, cultures and languages. In North America and the Indian subcontinent, English already became the lingua franca during the 18<sup>th</sup> and 19<sup>th</sup> centuries and in the 19<sup>th</sup> century in Western Europe, English started to replace French. Although Mandarin is the most widely spoken language, since the second half of the 20<sup>th</sup> century English has become a global lingua franca (Rosenhouse & Kowner, 2008). The spread of English is closely associated with the rise of the US in the scientific, technological, economic and cultural developments in the 20<sup>th</sup> century (Graddol, 1997). Today, English is the dominant or one of the official languages, spoken by 2,24 billion people, almost one third of the world's population, in more than 75 states and territories (Crystal, 2003; Fishman, Cooper, & Rosenbaum, 1977). Although the number of native English speakers is around 400 million, around 2 billion people among approximately six billion people are able to communicate in English at different levels of competence (Crystal, 2003; Dalby, 2004).

Phillipson (2001, p. 2) holds the view that “English is no longer ‘owned’ by its native speakers; because the acculturation and nativisation processes have produced a remarkable diversification of the English language into many non-native varieties.” Today, speakers of many languages with different cultures, which affect their production and interpretation of speech, communicate primarily in English. In this case, speakers will adjust to “common communicative arena” instead of adjusting to any language (Molina, 2011, p. 1247). Canagarajah (2015), explains that although he speaks four languages, he cannot be considered as native speaker of four languages, as the native language is defined as the first language a human being learns to speak (Bloomfield, 1933) with the condition that the language spoken should be the only language spoken in a homogeneous environment (Chomsky, 1986, p. 17). Canagarajah (2015) states that even Anglo Americans cannot be considered a native speaker because there is no homogeneous community speaking only one language and they also switch between different registers and mix other languages. Their English is influenced by many languages in social and digital

environments, as the English language already has words and grammars from other languages (Fennell, 2001).

Kachru (1985) classifies the historical and sociolinguistic profile of English in different countries by employing three circles: the inner circle, outer circle and expanding circle. In Kachru's "World Englishes" model, each circle represents different types of spread, patterns of acquisition and functions of English. The inner circle includes the countries UK, the USA, Ireland, Canada, New Zealand and Australia, where English is the first language for the majority of the population. The outer circle includes countries India, Jamaica, Singapore, Nigeria, and so forth where English is not the first language of the majority of the population but it is a second language. The expanding circle includes countries Turkey, Germany, Japan, Brazil, and so forth where English has no official status, is taught as a foreign language, and is used for international communication in business, diplomacy and tourism (McKenzie, 2010). Kachru (1985) states that there is no distinct boundary between these three categories, and the difference between the outer and expanding circle countries is the fact that English is an official language in the outer circle countries. In this line, McKay (2002), using Kachru's World Englishes model, concludes that the use of English – as an international language used in international communication between countries – is no longer connected to the culture of inner circle countries, as English becomes imbedded in the culture of the country in which it is used and it enables speakers to share their ideas and culture with people from other countries (Robertson & Acar, 2010). Canagarajah (2013) on his part, critiques the World Englishes model, English as an international language, and English as lingua franca for concentrating on the emergence of language varieties. He highlights the importance of balancing these approaches by focusing on changes in meaning: as English words or grammatical items "travel through diverse spatiotemporal contexts" (Canagarajah, 2013, p. 57), their meanings change.

In fact, English has become the preferred language of online communication, science and technology, popular culture, mass media and business. Although the Internet has become more democratic, the dominance of English in electronic communication remains; eighty percent of webpages are in English (Northrup, 2013). Besides, English has become the language of higher education and the international academic language. Most scientists prefer writing their research and presenting their work in English in order to reach a wider audience. Of all scientific papers, 80-85% are now published in English or with English summaries (Northrup, 2013). Students in the countries where English is taught as a second language learn English; top research

universities are in the US, and because higher education resources are mainly in English, many doctoral theses are also written in English. More and more universities offer courses in English and use textbooks in English. Students are required not only to read and write in English but also make presentations in English although all the students and the teachers share a common native language. The increasing number of students studying outside their home country and new programs and universities targeting mobile students has increased the use of English as a medium of instruction. In 2003, 2.1 million students were engaged in higher education outside their home countries, and the number rose to 3.4 million in 2009. By 2020, the number of European students studying outside their home countries is expected to rise to 8 million (Altbach, 2006; UNESCO, 2012). Many parents spend large amounts of money to send their children to language programs abroad, a fact was emphasised by Crystal (2003, p. 103) as follows:

“the English language teaching (E.L.T.) business has become one of the major growth industries around the world in the past thirty years.”

(Crystal, 2003, p. 103)

English is widely required in business too. Carlo Brumat, dean of Duxx Graduate School of Business Leadership in Monterrey, points out that “English is the lingua franca of business. Not recognizing that is like shooting yourself in the foot” (Northrup, 2013, p. 118). Moreover, Harzing and Pudelko (2012) showed that most multinational companies use English as their official language except in Asia, where only 41% of companies use English in order to cooperate with other multinational companies (Ke, 2015).

Most of the scientific, medical, industrial, and technological developments have come from English speaking countries over the past three centuries (Doms, 2003). American technology, which has influenced the whole world and most of the scientific and technical information available in the world today, is in English (Kaplan, 1987). As a result, countries in the expanding circle need to speak English in order to benefit from these innovations dominated by the English-speaking countries (Crystal, 2003). Most countries have taken English terms related to technology into their own languages as they are new concepts and do not exist in the recipient language. In the expanding circle countries, Hollywood movies, international sport, American popular music, newspapers, brands and so forth have a massive impact. In these countries, speaking English is not only a need for academia or business, but also a lifestyle, influenced by

the Western culture, a term which most often refers to the cultures of the United States and Europe (Doms, 2003). According to Northrup (2013), the future of English as a global language does not depend on the native speakers but on the people who speak it as a second or third language, including the Chinese, Asians, Europeans, Africans, and others. English may not be the permanent global language, but it will not change easily or quickly.

In summary, English has become the lingua franca in international relations, science, and business, as well as in education and popular culture. As English is the global language and it has become the preferred language for online communication, people communicating online in order to reach their imagined global audience usually prefer English to their local languages. In this way, English as a global language is used in computer-mediated communication as a way of showing one's online global identity, and Turkey is no exception. In the following section, the role of English in this country will be presented.

### ***2.1.2 The Role of English in Turkey***

The Ottoman period spanned more than 600 years and consisted of many ethnic groups and cultures. None of the ethnic and religious minorities in the Ottoman Empire was assimilated and they maintained their cultures. However, they had the freedom to open and manage their own educational institutions (Uzunçarşılı, 1975). Therefore, citizens of Western countries living in the Ottoman lands opened their own foreign schools. The most important event in the history of English in Ottoman Empire occurred in 1863, when Cyrus Hamlin opened a school near the Bosphorus called “Robert College”, since the Ottoman Empire had given Christian missionaries the right to teach within its borders. In this school, Arabic and English were taught, and English was the lingua franca among Armenian, Bulgarian, Jewish and Greek students who had different linguistic backgrounds (History of Bogazici University). “Robert College” was the first missionary school with government approval. Later, its name was changed to “Bogazici University”, and now it is one of the most prestigious public schools in Turkey (Zok, 2010). In the mid-19th century, there were 400 American and 100 French schools in the Ottoman Empire (Dolgunsöz, 2014).

In 1923, with the establishment of the Turkish Republic, Turkey underwent rapid reforms that aimed to create an independent and modern country. These reforms included language planning,

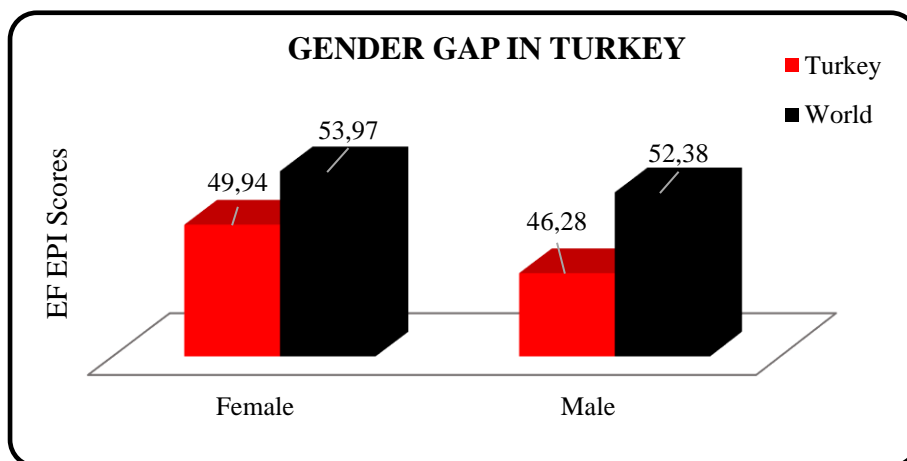
a foreign language education system, the adoption of the Latin alphabet in 1928, and the foundation of the Turkish Language Association by Atatürk in 1932 (Doğançay-Aktuna, 1998). In Turkey, the rise of English started after WWII (Eskicumalı & Türedi, 2010). In 1957, English-mediated education was officially initiated by the Ministry of Education, because after WWII English became the lingua franca for trade, banking, tourism and science in the Middle-East (Doğançay-Aktuna, 1998), and Turkey had to spread the English language in order to advance in these areas and to keep up with technological developments (Zok, 2010). Although French was commonly taught as a second language, during the 1950s it was replaced by English. In 1952, Turkey became a member of NATO, and due to its political and international affairs, Turkey introduced a new policy of spreading English teaching throughout the country. Robbins (1996) states that, since the mid-1980s Turkey has been affected by globalization, and for international communication English had an increasing status in Turkey (Sarıçoban & Sarıçoban, 2012). After the educational reform of 1997, English became a compulsory subject in primary schools from 4<sup>th</sup> grade onwards. Before the Turkish educational innovation in 1997, English had been taught only at middle-school level (Bayyurt, 2006; Kırkgöz, 2005).

According to Kachru's (1985) World Englishes model, Turkey is one of the expanding circle countries where English is not an official language but taught as a second language and used for international communication (McKay, 2002). Today, English is the most commonly taught second language in Turkey (Bayyurt, 2006; 2012), and there are many private and public universities which use English as a medium of instruction. Besides, in Turkey English is the only compulsory foreign language subject in schools, where French and German are elective (though the closest language subject competitors of English in the education system) (König, 1990, p. 161). Although English is the most prestigious foreign language in Turkey, it is not close to becoming a second official language, and it is mainly used in education, government international communication and private business (Doğançay-Aktuna, 1998, pp. 30-31; Kırkgöz, 2005, p. 159).

Furthermore, English is a must for most white-collar jobs in Turkey. According to Doğançay-Aktuna (1998) English is required for more than 30% of jobs (Özen, et al., 2013). Many Turkish students study English for international job opportunities and the social prestige that speaking it brings (König, 1990, p. 163). High levels of English language communication skills are required from highly skilled workers to work in companies with international connections, especially after Turkey's economic integration into the global economy (Acar, 2004). As

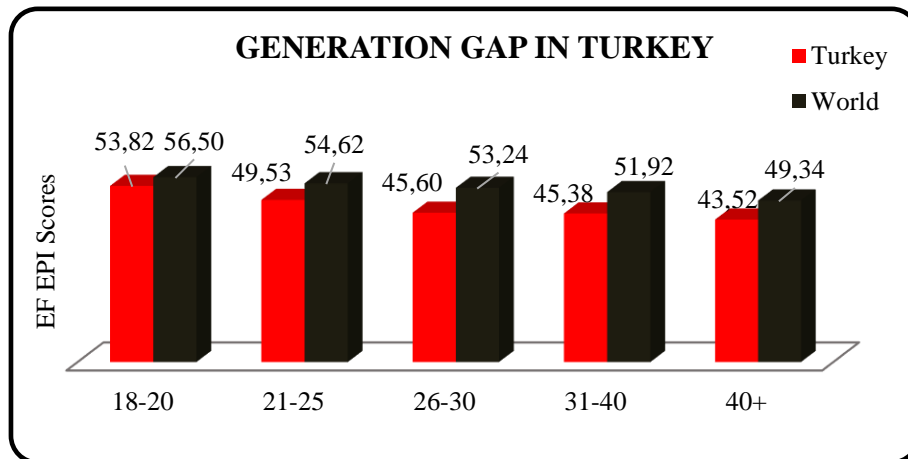
Turkey is the 6<sup>th</sup> most visited country in the world with 39.8 million international visitors in 2014 (Tourism Highlights, 2015), the ability to speak English is necessary for people who work within the tourism sector as the market is highly competitive internationally. The increase in income from Turkey's tourism sector plays an important role in the rising popularity of English in Turkey (Bayyurt, 2013). Another reason for the increased use of English is the spread of private channels and cable in Turkey. Especially with American movies, the loan words taken from English has increased. Today English is widely used in media and English loan words are used on TV and radio (Barker, 1999). English loan words like *part-time*, *full-time*, *art*, *cool* etc. are especially fashionable among young people in daily conversation (Acar, 2004; Kırkgöz, 2005, pp. 1-22). Also, the increasing development of technology and faster communication; the use of the Internet which started in 1993 in Turkey, played an important role in the spread of English in Turkey. The role of computer-mediated communication in Turkey will be discussed in the following section.

Despite these trends, according to the Education First English Proficiency Index (EF English Proficiency Index, 2017), although most of the students (74%) and parents (94%) consider that learning English is necessary, the level of English in Turkey is low. Turkey is 51<sup>st</sup> out of 72 countries with a 47.89 EF EPI score, which shows a very low proficiency. According to the EF EPI report, women had a higher proficiency than men. In 2016, women had 49.94 points when the world average was 53.97 points, and men had 46.28 points when the world average was 52.38 points. The gender gap in Turkey in 2016 and world average can be seen in Graph 1.



Graph 1: Gender gap in Turkey adapted from EF EPI 2016

Graph 2 shows that Turkey has low English proficiency scores in each age group, when compared with the world average. Proficiency scores reach a peak with college-aged young adults (18-20) at 53.82 points, which shows the improvement of English teaching in the country. The results show that as age increases, there is a downward tendency in the level of English. Probably, as students find English classes boring or difficult their motivation towards learning English decreases as they progress through the grades (Özen, et al., 2013).



Graph 2: Generation gap in Turkey adapted from EF EPI 2016

This section has provided a brief summary of the literature relating to the role of English in Turkey. English has become the most popular second language in the country as a natural consequence of the following three factors: globalization, Turkey's will to keep up with scientific and technological developments, and the country's investment in international communication. Certainly, the Turkish government's educational and cultural policies, and global and local developments in media, communication and economy play a significant role in the spread of the English language (Acar, 2004). Today, English words are commonly used in daily conversations, especially among young people, on TV, radio and the Internet. Although the English level is lower than the world average and lower as age increases, the study shows that students and parents generally hold the opinion that speaking English is necessary in order to get highly paid jobs.



## **2.2 Language Contact Phenomena**

Language contact occurs when speakers of different languages interact closely. Contact between different language communities results in the development of common linguistic features (Oxford Dictionary, 2017a). According to Thomason (2010), it is probably impossible to find a language that is not in contact with any other language at any given time. Thomason (2001, p. 8) states that “there is no evidence that any languages have developed in total isolation from other languages.” In a speech community, there are two steps in the establishment of an innovation. First, variation and change starts with one or more speakers’ speech; second, this variation and change transfers from speaker to speaker and spreads through the community (Thomason, 2010).

In studies of language contact phenomena, one of the major problems is distinguishing the terms related to the contact phenomena like code-mixing, code-switching, code alteration, borrowing, interference and integration. These terms have been defined and used in different ways by the researchers, a phenomenon which makes comparison studies difficult (Romaine, 1995/1989, p. 180). Although some researchers such as Kachru (1983) and Sridhar & Sridhar (1980) have reported that distinguishing between these terms is important, other researchers such as Eastman (1992) and Tay (1989) have reported that trying to distinguish between these terms is not necessary (El-Fiki, 1999). Due to the continued controversy, in the following sections lexical borrowing and code-switching will be explained.

### ***2.2.1 Lexical Borrowing***

When people are in contact regularly with other people speaking a language different from their own language, two things are likely to occur at the beginning. First, speakers on both sides learn some useful phrases. Second, in order to refer to objects, activities or concepts, one group will take some words into their own language from the other group (Myers-Scotton, 2006). Since the first contact between people who speak different languages, lexical borrowing is a common activity. Word-borrowing requires not only that some contact between languages is established but also that the speaker understands the meaning of the word “borrowed”, which shows a minimum tendency towards bilingualism (Rosenhouse & Kowner, 2008).

Although the term “borrowing” is used to define the use of words taken from one language – the donor language – and used in another language – the recipient language – this verbal movement is not implied to be temporary (Haugen, 1950; Zenner & Kristiansen, 2014). Poplack and Meechan (1995, p. 200) used the term “loan words” for the words taken from one language that have linguistic integration in the recipient language with a widespread practice. Johanson (2002) used the term *code-copying* instead of borrowing as “the source language does not give anything up, and the receiving language does not give a 'borrowed' item back” (Thomason, 2001, p. 96).

Lexical borrowing affects both the recipient and the donor language. Borrowed lexical items may be embedded into the phonological, morphological and syntactic aspects of the recipient language or they can make changes in the phonology and morphology of the recipient language. Most established lexical borrowings are completely or partially integrated into the recipient language and they are pronounced similarly to words in the recipient language (Myers-Scotton, 2006). According to Thomason and Kaufman (1992) borrowed words are usually adapted to the recipient language phonetically and morphologically, and if the phonetic adaptation of the borrowed word is missing, this may show that the recipient language community is imitating the phonological system of the donor language. The reason for this may be self-denial, snobbishness or cultural admiration.

Researchers have defined and used the terms code-switching and borrowing in different ways. In this research, lexical borrowing is defined as the phenomenon of transferring words from a donor language to a recipient language as a result of contacts between communities speaking different languages (Kaufman & Thomason, 1992). In the case of single words, it is difficult to determine if a word is an established loanword/borrowing, an instance of nonce borrowing or code-switching (Alex, 2008 ; Vyas, 2014; Myers-Scotton, 2002). “Nonce borrowings” are single words that are integrated into the recipient language syntactically and morphologically (Myers-Scotton, 1993a). However, they may or may not have phonological integration. Poplack and Meechan (1995) defined established borrowing as “the adaptation of the lexical material to the morphological and syntactic (and usually, phonological) patterns of the recipient language”. According to Poplack and Meechan (1995), single word insertions are nonce borrowing rather than code-switching. On the contrary, Hadei (2016), states that English single word insertions in Persian should be considered as code-switching instead of established borrowings. He agrees with Myers-Scotton (2002) that although the consequence of single or phrasal insertions are

different, code-switching or established borrowings have the same production process. Boztepe (2003), on the other hand focuses on the distinction of two terms; code-switching and borrowing and states that:

“Indeed, there seems to be very little reason to distinguish borrowing from code-switching for purposes of formulating grammatical constraints on the surface syntactic level. After all, there are more similarities than differences between the two concepts. This does not of course mean that morphological and syntactic integration are not reliable criteria to distinguish the two processes.”

(Boztepe, 2003)

Boztepe (2003) holds the same view as Eastman (1992); that categorizing the terms code-switching, code-mixing and borrowing is not necessary if we want to research the social and cultural processes.

In this paper, it is considered that there is a necessity to distinguish between the two. In order to clarify the distinction between code-switching and lexical borrowing, Muysken’s (1995) idea has been followed. Muysken (1995, p. 180) states that the difference between code-switching and lexical borrowing is the size and the type of the element switched. Singly-occurring words in the recipient language have been taken as lexical borrowings and phrases are taken as code-switching. For instance, when a noun is used in the recipient language it is analysed as lexical borrowing and when a noun phrase is used it is analysed as code-switching. In the following subsection types of lexical borrowing will be explained.

#### *2.2.1.1 Types of Lexical Borrowing*

There are two types of borrowing: cultural and core borrowings. Cultural borrowing occurs when the recipient language takes words from the donor language to serve for concepts or objects which are new to the language’s culture. For instance, in many Western languages the Japanese word *sushi* and the Swahili word *safari* are used, since these things/concepts are new to the Western cultures. Turkish people, on their part, take words from the French language such as *pantolon* (trousers; *pantalon in French*) and *komik* (funny; *comique in French*) (Lewis, 2002). It is common to borrow the names of new clothing items or type of food new to a culture

with the item itself. Words related to new technology like *computer*, *web-page*, *download* and so forth are qualified as cultural borrowings as they are new concepts for the recipient language (Myers-Scotton, 2006).

The motivation for cultural borrowing is explained with the gap hypothesis (Myers-Scotton, 1993b; Grosjean, 1982), which holds that, when speakers of the recipient language notice that some expressions or concepts do not exist in their own language and their language is poorly equipped, they tend to take or replicate the structure existing in the donor language which is better-equipped. Cultural borrowings – cultural loans – are the gap-fillers that enrich the lexicon of the recipient language (Matras, 2009). When speakers of the poorly-equipped language borrow words to fill in the gaps in their language, even though later on equivalents of these words may come to be, speakers tend to take these words from the better-equipped language. When a term is first learned in a second language, within the discourse speakers tend to take these terms from the second language. This is explained by the language facility which involves expressing oneself better with two languages rather than only using one language (Bishop, 2006, p. 18). For example, Spanish/English bilinguals may switch from Spanish to English when the vocabulary relates to occupations, education and medicine. Having first learned discourse items related to business and modern technology in English, bilinguals tend to switch to English during their discourse (Huerta, 1980). For example, when Spanish speakers save a file on their computer, they will call it *el backup* (Dillon, 2000).

After long or intensive language contact, words from a donor language are borrowed even if they already exist in the recipient language. This type of borrowing is called “core borrowing”. Poplack (1980), named these words “nonce borrowings” because these words duplicate elements in the recipient language and/or even replace its own words with the words taken from the dominant language. The motivation for core borrowing is explained by the “prestige hypothesis” (Mertz, 1989, p. 112; Matras, 2009). Speakers of the recipient language tend to imitate a more dominant community to have more prestige than the other recipient language speakers, to gain approval and social status. The cultural and historical background and economic gaps between the communities affect the amount of core borrowing. Also, intragroup motivation and the need for greater prestige is related to lexical borrowing. According to Mougeon and Beniak (1991), core borrowings occur when bilinguals use both languages regularly and when the recipient language speakers find the dominant language culture more attractive, even if the donor language is not widely spoken in the community. According to

Zentella (1997), monolingual Spanish speakers living in the USA use words such as *londri* ('laundry'), *el bloque* ('the block'), and *lonchar* ('to lunch') without even knowing that these words come from English (Myers-Scotton, 2006). In fact, according to Matras (2009), cultural borrowings are more common than core borrowings.

### 2.2.1.2 Borrowing Nouns, Verbs and Adjectives

Within the borrowed items, nouns are borrowed more frequently than any other item (Poplack, Sankoff, & Miller, 1988, p. 62; Field, 2002; Rendon, 2008). According to the "borrowability or switchability hierarchy", the borrowing of adjectives, verbs and adverbs is less frequent than the borrowing of nouns (Appel & Muysken, 1987, pp. 170-172). According to Aitchison (2000, p. 62), because nouns are grammatically free characters, they are borrowed more frequently, but it is possible to transfer all grammatical categories. Hount and Muysken (1994, p. 41) reported that, within the Hindi language, items borrowed from English the frequency is nouns > adjectives > verbs > prepositions. Haugen (1950) reported that between American Norwegian and American Swedish the frequency of borrowing items is nouns > verbs > adjectives > adverbs, prepositions (Field, 2002; Hickey, 2013).

Verbs are items that are borrowed too (Matras, 2009), but because verbs are the items that do syntactic structure-mapping, where nouns are mapped onto this structure, they are not easily borrowed from one language to another (Myers-Scotton, 2006). The receptor language only borrows verbs if nouns were borrowed first, that is when a language has borrowed verbs, it means that it has also borrowed nouns (Zenner & Kristiansen, 2014). On the other hand, adjectives and lexical adverbs are borrowed less frequently than nouns and verbs (Matras, 2009). Example (1) below illustrates the Turkish language borrowing a noun from English in Twitter:

- (1) kimler vardı o *team*de  
Who were in that *team*?  
(Tastan, 2012)

Example (2) shows the Turkish language borrowing a verb from English in Twitter:

(2) Sizi *blocklamıştım*.

I *blocked* you.

(Tastan, 2012)

Example (3) below illustrates the Turkish language borrowing a verb from English on Twitter:

(3) 20 yıl kadar sonra kızımın kalbini çalıcak o *cool* çocuk, şimdi oturmuş baby tv izliyodur belki.

The *cool* guy who is going to steal my daughter's heart 20 years later perhaps is watching baby TV now.

(Tastan, 2012)

In the following section, the motivations for borrowing from the English language and its means of dissemination will be explained.

### 2.2.1.3 Lexical Borrowing from English

English words are mainly borrowed from two English-speaking countries, the USA and Great Britain, to refer to terms, objects and concepts. Lexical borrowing from English is not different than lexical borrowing from any other language, and needs at least some contact with these countries and their speakers (Kaufman & Thomason, 1992). In many countries, there are two main reasons for borrowing English loan words. Firstly, there are the successful advancements of English speakers in science and technology. The second reason is that, due to the success of English speakers in technology and science, the English language is seen as the language of modernity and has become the leading source of borrowing (Myers-Scotton, 2006). In this line, Thomason and Kaufman (1992, p. 65) state that there are three social factors affecting the amount and types of borrowing; a) the contact intensity and its length, b) the number of speakers, and finally, c) the cultural, economic and political dominance of the donor language community.

Rosenhouse and Kowner (2008) on their part, state that there are two main ideas explaining the motivations for borrowing words from English. The first one implies psycholinguistic factors that is personal needs comprising borrowed words related to culture, entertainment and objects.

The second one involves sociolinguistic factors: community and professional needs comprising borrowed words related to economics, science and technology. After analysing the words borrowed from English in 12 different languages, authors concluded that each country has its own history and contact with English, in terms of linguistic and non-linguistic factors, which determines the motivation for borrowing. According to Rosenhouse and Kowner (2008) there are three fundamental motives for lexical borrowing which are common to almost all languages; the need to coin new terminology and concepts; the tendency to emulate a dominant group, and the tendency to create a special jargon in closed groups.

According to Zenner (2013), motivations such as lexical gaps and speech economy increase the amount of words borrowed from English. Words with fewer syllables tend to be borrowed more than words with more syllables, which can be explained by the language economy principle – using the least effort in language production (San, 2009). According to Clyne (1991b, p. 167), bilinguals are able to choose less complex forms from the language systems, which is a fairly unconscious process, and Gumperz (1991) suggests that bilinguals tend to use the shortest and the easiest words to communicate. For example, Spanish/English bilinguals tend to use English words which are linguistically more economical than their Spanish equivalents. For instance, instead of “maquina de lavar” using the English equivalent “washer” is an example of the economy principle (Becker, 1997; Maier, 2006).

Regarding routes of dissemination, according to Rosenhouse and Kowner (2008), there are three main routes of dissemination of English loan words: direct communication, mass media and the education system. In the first place, more direct contact with English native speakers, due to travelling, colonization or military presence increases the level of exposure to English language and results in the increase of English loan words (Rubal-Lopez, 1996). Secondly, a society more exposed to English by the mass media including written, visual and audio means of communication (newspapers, radio, cinema, TV, computer and the Internet) has a greater tendency to learn and borrow English words. In fact, in the 20<sup>th</sup> century, English speaking countries, especially the USA, have led many trends in popular culture, by means of radio broadcasting in English followed by the successful American film industry, movies exemplifying the ‘typical’ American lifestyle and language. Also, in the last quarter of the 20th century with increased use of personal computers and the Internet, the dissemination of English loan words has increased. Finally, the third route of dissemination of English loan words is the education system of a country. As the education system advances and more students study at

Anglo-American institutions, the tendency to borrow English loan words increases. In many countries, English is taught as the second language in schools. Also, economic developments like exporting to English speaking countries increases the need of English language education (Fishman, Cooper, & Rosenbaum, 1977).

#### 2.2.1.4 Turkish Lexical Borrowing from English

Turkish is one of the languages that borrow words from English. It has previously been observed (Şuataman & Kalafat, 2012; Ulaş & Sevim, 2010; Tastan, 2012) that Turkish people communicating online borrow English words. Previous research (Tastan, 2012) showed that Turkish native university students use English words on Twitter while communicating online. According to Tastan (2012), within the borrowed English words, nouns (70.8%) are borrowed more than verbs (22.6%) and adjectives and adverbs (6.5%). Table 1 illustrates borrowed words with respect to content. Most of the borrowed single items were related to technology (34.3%) followed by education (27%) and entertainment (23.4%).

<b>Content</b>	<b>Borrowed Words</b>	<b>Percentages</b>
Technology: Internet, Twitter, computer, etc.	unfollow, subscribe, search, refresh, pc, mouse, mention, laptop, download, account	34.3 %
Education	attendance, complementary, consent, deadline, drop, essay, quiz registration	27%
Entertainment	Cool, hangover, hit, single, sexy, six packs, trend time, drunk, celebrity, rocks	23.4%
Other	mom, tiger, realistic, puzzle, flashback, disappointment	4.4%

Table 1: Percentages of lexical borrowing with respect to content (Tastan, 2012)



Lexical borrowings related to technology, being new concepts, qualify as cultural borrowings. Examples (4) and (5) illustrate cultural borrowings found in computer-mediated communication in Turkish language:

- (4) programı load edemiorum *help* plss,  
Correct Form: Programı yükleyemiyorum. Yardım edin lütfen.  
Translation: I cannot load the program. Help please  
(Erdogan & Yaman, 2007)
- (5) *Follow* ediyor bizi  
Correct Form: Bizi takip ediyor  
Translation: S/he is following us.  
(Tastan, 2012)

Despite this research, there is no previous literature on the frequency of cultural and core borrowings and lexical borrowing topics with respect to age and gender in Turkish. Henceforth, the aim of the present research is to explore, for the first time, Turkish people's lexical borrowing from the English language with respect to age and gender.

This section has attempted to provide a brief summary of the literature relating to lexical borrowing, types of lexical borrowing, borrowed items, lexical borrowing from English and finally Turkish language lexical borrowing from English. In summary, lexical borrowing occurs when the speakers of different languages are in contact. There are two main types of borrowings: cultural borrowing, which is explained using the gap hypothesis, and core – nonce – borrowing which is explained using the prestige hypothesis. The gap hypothesis suggests that when speakers notice that some expressions or concepts do not exist in their own language, they tend to take them from a better-equipped language and the prestige hypothesis states that speakers of the recipient language tend to imitate a more dominant community to have more prestige, to gain approval and social status. Cultural borrowings seem to be more common than core borrowings (Matras, 2009) while nouns are borrowed more frequently than any other item. Borrowing from English is the same as borrowing from any other language and requires language contact. In fact, the success of English speaking countries and the reputation of the English language as the language of modernity are the main motivations for borrowing words from English (Myers-Scotton, 2006). In the section that follows, code-switching will be presented and analysed.

### ***2.2.2 Code-switching***

Language is a dynamic concept, and throughout human history it has been subject to political, social and economic changes (Zenner & Kristiansen, 2014). Today there are about seven thousand different languages in the world, and it has been estimated that more than half of the world's population are bilingual and engage in code-switching (CS) (WALS, 2013). CS is the ability of bilinguals to alternate between languages or dialects effortlessly (Bullock & Toribio, 2009). Brice & Brice (2000) define CS as the use of complete sentences, phrases, and borrowed words from another language. CS is a linguistic product of language contact and people who are in contact with more than one language or dialect are affected to a greater or lesser extent.

Although the study of CS emerged in the sociolinguistic literature in the 1950s focusing on the social motivations for CS (Vogt, 1954; Haugen, 1956), CS phenomena have been studied from three different perspectives within the disciplines of linguistics, sociolinguistics, and more recently, psycholinguistics. The frameworks and methodologies used in each discipline have been different from each other. Linguists have been concerned with structure and grammatical constraints, sociolinguists have focused on the social motivations for CS, and finally psycholinguists have paid attention to how bilinguals' linguistic systems are stored and organised in the cognitive system (Stell & Yakpo, 2015). But although linguistic and psycholinguistic perspectives are important, they do not focus on the content of CS. This research studies CS from a sociolinguistic perspective focusing on the content of CS in online written language.

Although bilingualism was seen as a drawback at first, nowadays the ability to speak more than one language is widely accepted and seen as an advantage. The use of different languages in the same conversation has been misinterpreted as a lack of linguistic competence, not being able to acquire or distinguish two languages properly and not knowing one of the languages well enough to communicate (Zenner & Kristiansen, 2014). However, sociolinguistic studies have shown that CS does not indicate linguistic incompetence but rather has an important role in social functions (Hill Z. K., 2007).

CS, which is a specific kind of language mixing, involves the full phonological and morphological integration of a word from one language into another language (Bullock & Toribio, 2009). The following example (6) illustrates CS between Turkish and English. The speaker starts with Turkish and finishes his/her speech with English.

(6) Süper gece!. Believe me it rocks!

Translation: Super night. Believe me it rocks!

(Tastan, 2012)

The word *code* is actually located within the field of communication technology (Fries & Pike, 1949; Jakobson, Fant, & Halle, 1952) but it is used as a general term for languages, dialects, and so forth. The word *switch*, used to denote the alternation between different languages, comes from the early studies of psychology conducted in the 1950s and 1960s, which assumed that in bilinguals' brains something similar happened to flicking an electric switch when they switched between languages (Gardner-Chloros, 2009). Although there has been much research about speakers using more than one language, there are terminological problems regarding the language contact phenomenon (Cárdenas-Claros & Isharyanti, 2009). The terms “code-mixing” and “code-switching” have been used to refer to different concepts (Romaine, 1995/1989, p. 180). Muysken (2000, p. 1) for example used the term code-mixing to refer to “all cases where lexical items and grammatical features from two languages appear in one sentence.” Although some researchers argue that the distinction between the two terms is necessary (Sridhar & Sridhar, 1980; Wardhaugh, 2006), other researchers prefer to use CS as the generic term to refer to the use of more than one language during a conversation (Gumperz J. J., 1991; Eastman, 1992). According to Clyne (Clyne, 1991b, p. 161) the two terms, CS and code-mixing, refer to the same phenomena, named, when a speaker stops using a language and starts using another. Tay (1989) reported that the distinction between two terms cannot be maintained and Eastman (1992, p. 1). argues that “Efforts to distinguish CS, code-mixing and borrowing are doomed”. In view of the controversy, in the present study, the term CS is defined as “the ability on the part of bilinguals to alternate effortlessly between their two languages” (Bullock & Toribio, 2009, p. 1).

There are three main reasons to study CS: the first one is that studying CS and comparing CS in different communities and in different languages can help to understand the role of linguistic and sociolinguistic factors. Bilinguals switch between languages in particular ways that mean they can express their group identity; studying CS thus helps to understand the formation and expression of bilingual identity (Tabouret-Keller, 1997; Sebba & Wootton, 1998). Secondly, CS studies help towards an understanding of how languages are processed and produced in the brain. Finally, CS studies help to find out which phrases from a language are easier to combine with another language and which ones are more resistant (Gardner-Chloros, 2009).

In fact, there are many sociolinguistic approaches to social factors in CS, covering plurilingual data. Blom and Gumperz (1972) studied the social motivations for CS in naturally occurring conversations and made a distinction between situational and metaphorical CS. In 1993, Myers-Scotton's Markedness Model (MM) tried to answer the question "What do bilingual speakers gain by conducting a conversation in two languages rather than simply using one language throughout?" (1993b, p. 3). The author linked social constraints to the behavioural choices using the concepts of power and solidarity (Brown & Gilman, 1960), politeness theory (Brown & Levinson, 1987), speech accommodation theory (Giles & Coupland, 1991; Giles & Smith, 1979) and conversational principles (Grice, 1989). However, Peter Auer (1998b) has critiqued that MM does not adequately describe speakers' perceptions of their own behaviour and by CS speakers actively create and produce social meaning depending on the particular interaction, rather than referring to any pre-existing normative model.

CS as a social phenomenon has been widely researched in sociolinguistics (see Poplack, 1980; Lipski, 1985; Romaine, 1989; Gonzales-Velásquez, 1995; Zentella, 1997). According to Gumperz and Hernandez (1969), under conditions of rapid social changes when minority language communities come into close contact with majority language communities, CS occurs. According to Cheng and Butler (1989, p. 295), "conversational topic, role of the speaker, setting of the interaction, familiarity of the two speakers, age, sex, race, ethnic, linguistic background, etc." are some of the reasons for CS (Hill Z. K., 2007). Similarly, according to Fischer (1972) CS should be analysed in the context where the bilingual speech is produced, consisting of three contextual factors: the relationship among speakers, the setting where the talk takes place and the topic being discussed. In 1992, Myers-Scotton added one more factor to this list: educational background and social identity. And finally, Huang (2004) added another contextual factor, the medium used, as computer-mediated communication conversations usually trigger a change of code (Gardner-Chloros, 2009).

Previously published studies (Gardner-Chloros, McEntee-Atalianis, & Finnis, 2005) on the attitudes towards CS have showed that there is a positive trend for CS among younger generations while people who have at least a B.A. degree have less favourable attitudes towards CS (Dewaele & Wei, 2014). On the other hand, studies on CS attitudes with respect to gender have showed either there is no significant difference between women and men, and women had significantly more positive attitudes towards CS (Valerio, 2015; Dewaele & Wei, 2014). Sociolinguistic studies have shown that people code-switch more when they are in informal

situations (Gardner-Chloros, 1991), and Dewaele (2001) found that second language learners code-switch more in informal than in formal interviews. In contrast, a study conducted in Strasbourg showed that the use of CS was more frequent and more intensive in formal contexts than in informal contexts. Participants code-switched more in workplaces between colleagues or peers than in informal contexts like between family members (Bullock & Toribio, 2009).

Lipski (2014) states that CS is a conscious behaviour and speakers have control over language switching. CS is not a random phenomenon, on the contrary it serves many functions in discourse as an identity marker (Shin, 2010; Fought, 2003; Sridhar K. , 1996; Nishimura, 1995; Kroskrity, 1999; Woolard, 1988), a solidarity marker (Bradby, 2002), a dominance and prestige marker (Wong, 2000; Waseem, 2000) a sign of preciseness (Hussein, 1999; Bonvillain, 1993), a strategy of neutrality (Myers-Scotton, 1993a), a case of style shifting (Bradby, 2002), as reiteration, personalization, address specification, interjection and quotation (Gumperz J. J., 1991; Iqbal, 2011).

Gumperz (1991) when describing the conversational functions of CS, that is, the personalization function of CS, made a distinction between “we-code” and “they-code”. He suggested that “we-code” is the ethnically specific, minority language and related to in-group and informal activities, while “they-code” is the majority language and related to outgroup and more formal activities. A speaker can manipulate or create a desired meaning through CS, and CS can be used to convey both social and linguistic meanings. Gumperz (1991, p. 144) lists the possible functions and meanings fulfilled by CS: to appeal to the literate, to appeal to the illiterate, to convey precise meaning, to ease communication that is, utilizing the shortest and the easiest route, to negotiate with greater authority, to capture attention, to emphasise a point, to communicate more effectively, to identify with a particular group, to close the status gap, and, finally, to establish goodwill and support. Malik (1994) on the other hand, lists the functions of CS according to functions that users either accomplish or try to overcome: lack of facility, lack of register, mood of the speaker, to emphasise a point, habitual experience, semantic significance, to show identity with a group, to address a different audience, pragmatic reasons, and to attract attention.

Similarly, Karen Kow (2003) listed the possible conditions favourable for CS: lack of one word in either language, some activities have only been experienced in one of the languages, some concepts are easier to express in one of the languages, a misunderstanding has to be clarified,

one wishes to create a certain communication effect, one continues to speak the language latest used because of the trigger effect, one wants to make a point, one wishes to express group solidarity, and, finally, one wishes to exclude another person from the dialogue. Kow (2003) explains that from the list given above it may be possible to determine the function of the strategy, for example, when speakers intend to express group solidarity, uses CS and in this case the function of the switch is to establish goodwill and rapport. Another example is when a speaker lacks a word in English because of limited vocabulary: CS is used and the function of this switch is to overcome the language barrier or for meaning-making (David, 1999; Morais, 1991; Zuraidah, 2003; Kow, 2000). As can be observed, CS may perform a variety of discourse functions, which makes it an invaluable source of sociolinguistic information.

### 2.2.2.1 Types of Code-switching

There are two types of CS: inter-sentential CS and intra-sentential CS. Inter-sentential CS is the alternation between two languages within the same discourse. When a sentence in the first language is completed, the switch occurs and the following sentence starts with a new language (Appel & Muysken, 1987, p. 118). Below can be seen inter-sentential switching in example (7) from Turkish to Dutch. The speaker asks a question in Turkish and expresses his/her feelings in Dutch. Example (8) below illustrates inter-sentential switching from Turkish to English:

(7) Niye oraya gönderiyorlar? *Arm man*

Translation: 'Why are they sending him there? The poor man'

(Backus, 1992, p. 91)

(8) An itibariyle etrafimdaki uc insana bakiyorum da, *I guess I am ok :))*

Right now I am looking at three people around me and I guess I am ok.

(Tastan, 2012)

The second type of switching is intra-sentential CS. This has also been called classic CS by Myers-Scotton (1993a) or alternational CS by Muysken (2000). Intra-sentential switching involves a language shift in the middle of a sentence, and it is usually performed without a pause or hesitation. Example (9) illustrates Turkish-Dutch, and example (10) illustrates Turkish-English intra-sentential CS:

(9) Bunlar oynamaya kalkınca sen de kalkman lazım onlarla *en hoe moet je dan op de rest letten?*

Translation: When they get up to dance, you must get up with them as well, *and then how can you keep an eye on the rest?*

(Verlag, 2006)

(10) Kuaforume *make me perfect* diyorum ve yapıyor

I tell my hair dresser *make me perfect* and he does.

(Tastan, 2012)

Both intra-sentential CS and inter-sentential CS, require a high level of bilingual proficiency. According to Poplack (1980) and Lipski (1985; 2014), intra-sentential switching requires the most fluency as the speaker switches the rules of syntax of the language in the middle of a sentence, which is only possible to perform by the most fluent bilingual speakers.

In recent years, researchers have investigated types of CS between English and other languages. XU Qing (2010) showed that teacher CS between English and Chinese is quite a common occurrence in Chinese classrooms. Within 147 switches from English to Chinese 42.1% of the switches were intra-sentential and 83.2% of the switches were inter-sentential. Previous research (Tastan, 2012) among Turkish university students showed that CS between Turkish and English is also common practice while communicating online, 30.7% of these code switches were inter-sentential and 69.23% were intra-sentential. Liaqat Iqbal (2011) analysed CS types between Urdu and English among university teachers and found out that 37.15% of the code switches were intra-sentential and 3.66% were inter-sentential. These findings are contrary to a previous study (Qing, 2010) which found that the frequency of intra-sentential CS was lower than that of inter-sentential CS. However, there is no previous study on CS types with respect to age and gender.

#### 2.2.2.2 Code-switching between Turkish and English

Up to now, little attention has been paid to CS between Turkish and English in computer-mediated communication. Previous research among Turkish university students (Tastan, 2012) showed that CS between Turkish and English is a common practice while communicating online and 30.7% of the CS were inter-sentential and 69.23% were intra-sentential. In this

previous study (Tastan, 2012), CS were categorised according to their contents, and it was found that university students mostly code-switched to English when they were talking about entertainment with 46.14% and Internet, technology, Twitter, etc. with 19.65%, followed by education with 14.5 %. The findings of this study can be seen in Table 2. However, no previous study has investigated the frequency of CS types and CS contents among Turkish native people communicating online with respect to age and gender.

<b>Content</b>	<b>Percentage</b>
Entertainment	46.14 %
Technology: Internet, Twitter, etc.	19.65 %
Education	14.5 %
Location/ Traveling	7.7 %
Sports	6.8%
Other	5.12%

Table 2: CS percentages with respect to content (Tastan, 2012)

A recent study (Koban, 2016) analysed first and second generation Turkish-English bilingual speakers in New York City and aimed to find out their attitudes towards CS. She gathered her data from 35 participants through an online questionnaire and showed that the speakers had a neutral attitude towards CS. The reason why participants had a neutral attitude towards CS could be because the participants in her study had either a B.A. or an M.A. degree. People who have at least a B.A. have less favourable attitudes toward CS (Dewaele & Wei, 2014; Gardner-Chloros, McEntee-Atalianis, & Finnis, 2005). Of the participants in this research, 51.4% think that mixing Turkish and English leads to the loss of Turkish, and 70.4% of the participants think that mixing English and Turkish in writing does not look attractive. Koban's research showed that 80% of the participants think that the reason for CS is not lack of language skills.

Koban (2016) also investigated the attitudes towards CS with respect to gender. She found that women had more negative attitudes towards CS than men. Of the women in the survey, 59% think that mixing English and Turkish causes degeneration in the Turkish language more than men with 44%. Female participants numbering 65% and male participants numbering 50% think that mixing Turkish and English in the same conversation does not sound attractive. One of the questions in her research was about identity and CS; 51.4% of the participants, women



with 47% and men with 56%, think that CS does not reflect who they are, while 25.7% of the participants, women with 35% and men with 17%, think that CS between Turkish and English reflects their identity. Koban's finding supports Labov's (1972) finding that, although speakers have a negative view of CS, they consciously continue code-switching in order to show membership of a particular social group.

### ***2.2.3 Language Contact and Online Glocal Identity***

In computer-mediated communication, creating an online identity is difficult and can be hard to stabilise because only linguistic characters can be exchanged and many extra-linguistic characteristics such as personal features – voice, tone, accent, emotions, facial expressions, and so forth – cannot be conveyed (San, 2009; Poon, 2005).

The Internet is a global site with its capacity to connect individuals and groups with different cultures, languages and geographies. People communicating online expect to interact with a global audience, which is one of the main factors affecting online language choice. Allan Bell (1984; 2001) designed a sociolinguistic model called Audience Design talking, arguing that speakers adjust their speech to their audience in order to show solidarity with them or move away from their audience's speech to show distance. Communication Accommodation Theory (CAT), evolved from Speech Accommodation Theory (Giles, 2001), like Audience Design Theory, focuses on the adjustment of speech to minimise social differences between speakers by linking language, context and identity. Accommodation theory is audience-centred, as the speaker chooses their way of talking depending on the listeners. Online identity is strongly linked with Audience Design Theory: as people communicating online imagine a global audience, they adjust their speech to this imaginary audience, and code-switch to English from their local language to show their online glocal identities. Changing or mixing languages online is related to speakers' intention to project themselves to their target audience as global or local members. According to Myers-Scotton (1993a, p. 151) speakers use CS to convey a specific identity. In online communication, CS to English is a way of showing online glocal identity. Thus, using English instead of one's local language is not just a simple translation but a way of showing one's "glocal identity", which links both local and global in order to address an imagined audience (Lee & Barton, 2011).

Speech is not just the product of “who the speaker is”, or group membership, but also a product of what speakers wish to accomplish. Giles (2001) points out that speakers are multidimensional and they signal multiple identities to accomplish multiple goals. In this case, people communicating online code-switch to the English language to distinguish people whom they are addressing, address people with different linguistic backgrounds (Malik, 1994), and to signal their online glocal identities. Thus, CS is used to show online identity but in the case of lexical borrowing (explained in the previous subsection), depending on the lexical borrowing type, the goal might be different. As previously mentioned, there are two types of lexical borrowings; core borrowings – explained by the prestige hypothesis – and cultural borrowings – explained by the gap hypothesis –. Cultural borrowings are the words that fill in lexical gaps in the recipient language and they are borrowed because they are new concepts that do not exist in the recipient language (Matras, 2009). On the other hand, core borrowings are words that exist in the recipient language and duplicate some of its elements. The reason for borrowing these words is because speakers find the dominant language culture more attractive. One of the hypotheses of the paper is that in computer-mediated communication, borrowing words from a global language even if the equivalents exist in the recipient language is a way of showing online glocal identity. People communicating online are expected to show their online glocal identities in this way.

This section (2.2) has presented language contact phenomena; lexical borrowing and CS, as well how these phenomena are used to present glocal identity in computer-mediated communication. In the following section computer-mediated communication will be reviewed.

### **2.3 Computer-Mediated Communication (CMC)**

Computer-mediated communication (CMC) is defined as the exchange of information via computer (Baron, 1998). Virtual communication, online communication, electronic communication, cyber communication, or even cyber conversation may also be used to describe communication mediated by the computer. A wide range of symbols are used for communications resulting in information exchange. In this study, CMC refers to textual communication which includes human language and other symbolic systems (e.g. smileys, numbers...etc.) between at least two Internet users (Lee C. , 2002).

CMC is a recent phenomenon when compared to human-to-human (face-to-face) communication. It was designed in the USA for the interests of national defence in the late 1960's (Levy, 1984; Rheingold, 1993). But in the early 1970's it started to be used as interpersonal communication first among scientists (Hafner & Lyon, 1996), and later, in the 1980's, among academic and business users. And finally, in January 1999, with the rise of commercial Internet service providers, the number of Internet users rose to 150 million Internet users (Petrazzini & Kibati, 1999). The younger generations use the Internet for socializing through social networks whereas older adults also use the Internet, but mainly for e-mailing (Jones & Fox, 2009). Now, CMC is used both by people living far away from each other and even by family members living in the same house (Stafford, Kline, & Dimmick, 1999; Perry, 2010). Literature on CMC shows that there are marked differences between face-to-face communication and CMC. According to McKenna and Bargh (2000), there are four domains in which CMC is different from face-to-face communication: greater control over the time and pace of interactions, less importance of physical appearance, anonymity, and attenuation of physical distance (Okdie & Guadagno, 2008).

Gender is an important aspect of culture, although gender roles may change across cultures, and thus it plays an important role in CMC. Research on CMC dates back to the early days of technology 1970's, but researchers only began to take the gender aspect into account within CMC in the late 1980s. Researchers showed that considerable gender differences exist in the amplitude of Internet use (Wasserman & Richmond-Abbott, 2005) and Internet skills (Broos, 2005; Torkzadeh & Demirhan, 2006). Pew Internet and American Life project found that gender made a difference (Fallows, 2005) in CMC, as men used the Internet more broadly and more intensely than women (Helsper, 2010). It has been demonstrated that over the last decade, the gender gap in access to the Internet appears to be closing (Intel, 2013). On blogs and social network sites, women participate as much as men (Herring, Kouper, Scheidt, & Wright, 2004) and as a result many researchers believed that more equal access to communication and information would lead to gender equality (Grabe & Grabe, 2001; Warren, 1998). Early studies of online communication highlighted that, as nobody knows your real age, social status or gender communicating online, it offered greater gender equality (Graddol & Swann, Gender voices, 1989; Smith & Balka, 1988). Over time, studies have shown that there are actually differences in the way men and women interact online, and online communication hardly guarantees either social or gender equality. Herring (1996), concluded that culturally-learned

gender styles are reflected in the messages posted by men and women. Herring (1992; 1993; 1998) has demonstrated as well that, in online environments, gender related patterns do exist just like in offline, face-to-face environments including verbosity, assertiveness, and rudeness. In fact, some researchers believe that due to lack of face-to-face interaction CMC brings out the worst male attitudes and gender relations (Kiesler, Siegel, & McGuire, 1984).

In CMC, men and women use different discourse styles than they do offline and they have different participation patterns. Women are more personally oriented, more collaborative and they engage more in supportive work and their communication is socio-emotionally oriented (Sussman & Tyson, 2000). According to Herring (2013), users depending on their age and gender choose an appropriate style, and then write accordingly for their target audience, which can range from the self to a broad public, and for their communicative goals which can range from self-expression to the accumulation of social capital. She further states that the way teenage girls and boys present themselves textually on social media is different: girls try to please boys and make the social interaction easier, while boys textual presentation reflects assertiveness in their style and tone. (Herring & Kapidzic, 2015)

In CMC, expressing emotions is a relatively new topic and it is assumed that it is different from face-to-face communication. CMC is slower and less spontaneous, and non-verbal emotional communication is not available when compared to face-to-face communication. In fact, these two ways of communication, face-to-face and CMC, are different in their expression of positive and negative emotions. It has been shown that people express more emotions in positive, face-to-face, contexts than in negative contexts (Lee & Wagner, 2002). Additionally, since the Internet has the anonymity aspect of communication, expressing negative emotions can be easier, but this depends on gender, situation and culture. Women tend to express their emotions more than men (Timmers, Fischer, & Manstead, 1998) and emotions are expressed more in a socio-emotional context than in a task-oriented context (Derks, Bos, & Grumbkow, 2004). Also, according to research which polled 2000 people in the UK and USA, women send longer SMS messages and say 'I love you' more than men. In this study, 54% of the women expressed their love where men send shorter messages in a more functional way (Barnett, 2012). In CMC, emoticons are used to express emotions and mood. Huffaker and Calvert (2005) showed that there was no difference between girls and boys in the amount of emoticon use, whereas Baron (2004) showed that women used more formal language and used emoticons more than men.

### ***2.3.1 Types of Computer-Mediated Communication***

CMC is divided into two major categories depending on temporal simultaneity: synchronous (real-time) communication and asynchronous (delayed time) communication. In synchronous communication, users must be logged on at the same time and messages scroll up on the user's screen as they receive new messages. Instant messaging systems like ICQ (I-Seek-You), Yahoo Messenger, MSN Messenger, or chatroom systems such as Internet Relay Chat (IRC) are examples of synchronous (real-time) communication. In asynchronous communication, on the other hand users do not have to be online at the same time to send or receive messages; messages are saved until they can be read. Electronic mail systems, bulletin board system (BBS), newsgroups, and mailing lists are examples of asynchronous communication (Kiesler, Siegel, & McGuire, 1984).

In terms of interaction, CMC can be divided into three types: one-to-one interaction, one-to-many interaction, and many-to-many interaction which is also called "group interaction" (Moran & Hawisher, 1998). Twitter, a social networking site which will be explained in the following section, is an example of asynchronous communication and a public tweet which can be seen by many users would be an example of one-to-many CMC (Lee C. , 2002).

Different gender patterns can be seen in both asynchronous and synchronous CMC. In asynchronous CMC, male users write more and longer messages and they receive more responses than women and they typically dominate conversation. In synchronous CMC, male users use more violent verbs and offensive vocabulary where women use neutral and effectuate verbs (Herring, 2003). Research among college students (Lee C. , 2003) showed that male students spoke more about technology-related topics in instant messaging conversations, where female students' conversations were related to more emotional subjects. In one-to-many synchronous CMC forums, gender roles were more balanced with respect to number of messages and message length; but men used more aggressive language whereas women were more aligned and supportive (Herring, 2003; 2000; Panyametheekul & Herring, 2003; Baron, 2008).

### ***2.3.2 Social Networking Sites: Twitter***

Online platforms that allow users to create a public profile and to build a social network or social relations with other users who have common activities, backgrounds or personal or career interests are called “social networking sites”, “social networking services” or “social media”. Social networking websites allow users to confirm or deny the connection, and once the connections are established, social networking sites connect a user’s profile with other individuals and groups, and help people to communicate and share information, photographs, videos, and so forth, with a group (Obar & Wildman, 2015).

According to research conducted by Statistic Brain (2016), the major reason for using a social networking site is staying in touch with current friends (67%), with family members (64%), connecting with old friends one has lost touch with (50%), connecting with others with shared hobbies or interests (14%), and making new friends (9%).

Research conducted by the Pew Research Centre (Duggan, Ellison, Lampe, Lenhart, & Madden, 2015) showed that, in 2014, with 71% of adults, Facebook was the most popular social networking site. Other social networking sites such as Twitter, with 23% of online adult users, Instagram with 26%, and LinkedIn with 28%, have increased significantly over the past years. According to Herring (2013), mobile phones and CMC services such as Twitter and Facebook have actually become more popular than Yahoo and Hotmail accounts. Nowadays, Facebook status messages and Twitter are tools for self-documentation and they have overtaken emails. Besides, texting technology is constantly changing and further studies on texting should be updated and the focus would be more usefully directed towards sites like Facebook and Twitter rather than emails.

Twitter, a social networking site which has the mission “to give everyone the power to create and share ideas and information instantly, without barriers” (It's What's Happening, 2017), became one of the ten most popular websites with 645,750,000 total registered users as of September 25th, 2015 (Statistic Brain Research Institute, 2016). The 140-character limitation, including spaces makes Twitter different from Facebook or a blog. Twitter has been described as "the SMS of the Internet" (Alexa, 2017). This micro-blogging service asks users to answer a simple question, which was changed in 2009 from “what are you doing?” to “what’s happening?” at that very moment (Stone, 2009). Communication on Twitter starts with messages known as “tweets”. With a single-click on the update button, those in the user’s

network, who are among the followers listed on the main page of the user's Twitter account, can all see the tweet (Morris, 2009). On Twitter, being a follower of a user means that you will receive all the messages from that user on your home page.

Twitter is not a chat application like the chat add-ons found in MySpace or Facebook because replying to a Tweet is not a private conversation. On the contrary, the user's entire network can see the message and interact. In order to have a private conversation, direct messages are used. Twitter is not a blog mainly because it does not follow a theme while blogs usually follow a theme. Twitter covers everything and it is not categorised or organised like blogs. A tweet has a limitation of 140 characters, while a blog can have much longer text (Morris, 2009). RT, which stands for *retweet*, allows users to spread the information. Just by clicking the retweet button next to a tweet, users can share that tweet. They can also add their own comment before sharing by typing in the "add a comment field". @username is how the users are identified on Twitter. The "@" sign followed by the user identifier address is used to call out usernames in tweets. Hashtags, "#" followed by a word, are used to categorise the tweets. Hashtags connect tweets that talk about the same topic (Getting started with Twitter, 2017).

According to Social Media Update 2014, 25% of twitter users are men and 21% are women. Besides, 65% of the users are less than 24 years old and 81% are less than 30 years old. Twitter is especially popular among people under 50 and college-educates (Duggan & Madden, 2015). Based on the follower numbers of the users in "Twitterholics", most Twitter activity is concentrated on celebrities like Katy Perry, Justin Bieber, Taylor Swift or Barack Obama. 36% of the Twitter users check their twitter daily whereas 22% check it several times a day (Riley, 2011).

Research conducted to analyse the content of Tweets by Peer Analytics (Kelly, 2009) analysed 2000 tweets from the USA over a two-week period in August 2009. Tweets were divided in to six categories, as can be seen in Table 3.

<b>Content of Tweets</b>	<b>Percentages</b>
Pointless babble	40%
Conversational	38%
Pass-along value	9%
Self-promotion	6%
News	4%
Spam	4%

Table 3: Content of tweets according to Peer Analytics (Kelly, 2009)

Table 3 indicates that most of the tweets are categorised as pointless babble like "I'm eating a sandwich". Although most of the tweets on Twitter are pointless babble, 40% of the users said that they use Twitter as a breaking news alert, 39% said they use it to keep up with the news, and 36% to pass the time. Reasons for using Twitter are presented in Table 4 (Sonderman, Loker, Ivancin, Kjarval, & Rosenstiel, 2015).

<b>Reasons for using Twitter</b>	<b>Percentages</b>
To be alerted to or find out more about breaking news	40%
To keep up with the news in general	39%
To pass the time	36%
To tell others what I am doing and thinking about	31%
To see what people are talking about while I am watching events	28%
To keep in touch with people I know	24%
To follow famous people	19%
To share news	19%
To network	19%
To follow trending topics	18%
Other	7%

Table 4: Why people use Twitter (Sonderman, Loker, Ivancin, Kjarval, & Rosenstiel, 2015)

A study conducted in 2013 by Pew Research Centre (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013) showed that the majority of Facebook (63%) and Twitter (63%) users use these online platforms as sources of news about events and issues beyond their family and friends.



Ten percent of all adults living in the USA use Twitter as a news source where 41% uses Facebook. But these results changed in 2015 and Twitter was reported to be used more than Facebook for breaking news. Fifty nine percent of Twitter users use the site to follow breaking news, which is nearly twice as much as Facebook users (31%).

Finally, only a few studies have investigated gender, age and language use and identity online, on social network sites. On social network sites, boys tend to share their location (Huffaker & Calvert, 2005) and post about technology, sports and humour more than girls (Sveningsson Elm, 2007). Thelwall (2008) showed that in the USA 16-19 years old boys used more swearwords than girls but in the UK, there was no significant difference between boys and girls.

### ***2.3.3 CMC and Social Networking Sites in Turkey***

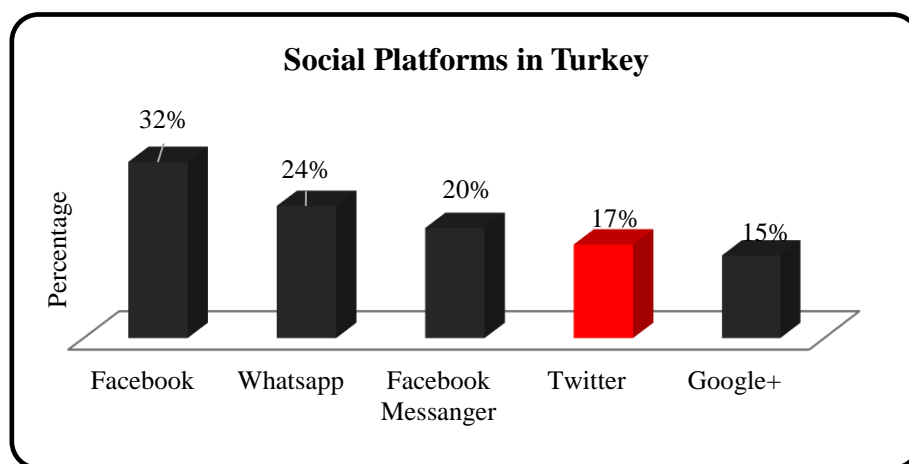
In 1993 the Internet in Turkey became public and after the dial-up connection, in 1998 cable Internet was available. In 2001, with the spread of ADSL services the Internet became accessible to an increasing number of people (Internet in Turkey, 2016). By 2015, the estimated population of Turkey was 77,695,904, and there were 46,196,720 users as of Jun 30/16, which makes up 57.5% of the population. Turkey was the fifth country in Europe with the most amount of Internet users by November 2015 (Internet World Stats , 2015).

According to the Turkish Statistic Institute (2014), the proportion of regular Internet users aged 16-74 increased from 39.5% to 44.9% from 2013 to 2014. The 16-24 age group had the highest proportion of computer and Internet usage in 2014, and male users were more than female users in all age groups. A study carried out in 2014 showed that 60.2% of households have access to the Internet at home, compared to 49.1% in April 2013. The location of Internet usage was mainly at home with 79.1% and 38.7% at workplace, 30.2% at another person's home, 23.3% at hotspots and 14.3% at Internet cafés. The average daily use of the Internet via PC or tablet is 4 hours 37 minutes a day, where via a mobile phone it is 2hours and 51 minutes. These results make Turkey the fourth most socially engaged nation in the world.

Research conducted from April 2013 to March 2014 also showed that in Turkey, the Internet is mainly used for social networks (78.8%) followed by reading online news (74.2%), finding

information (67.2%), playing or downloading games, images, films or music (58.7%), and sending/receiving e-mails (53.9%) (Turkish Statistical Institute, 2014).

According to We Are Social's Compendium of Global Digital Statistics Report 2016 (Kemp, 2016), as can be observed in Graph 3, Facebook is the most popular website in Turkey, with a 32% penetration rate. This is followed by WhatsApp with 24%, Facebook Messenger 20%, and Twitter with 17% of Turkey's population. Turkey is ranked as the fourth biggest Facebook market and eighth biggest Twitter market in the world. Although Twitter is not the most popular social media in Turkey, it has been the tool used for political and social expressions in recent years.



Graph 3: Social platform penetration in Turkey adapted from We Are Social's Compendium of Global Digital Statistics Report 2016 (Kemp, 2016),

This section has attempted to provide a brief summary of literature relating to CMC and social networking sites in Turkey. As can be observed, Turkey is one of the most socially engaged nations in the world, and Twitter is one of the most popular social networking sites in Turkey. In the next section, language on the Internet will be presented and analysed.

## 2.4 Netspeak: Language of The Internet

Even though most language contact has been face-to-face until now, with the global growth of CMC, worldwide travel and mass communication, many contacts now occur through only written language (Thomason, 2010). The communication produced in human interaction,

exchanging messages via networked computers, is called “computer-mediated discourse”. Computer-mediated discourse focuses on language and the use of language in computer networked environments (Herring, 2001). In the 1990s emails, newsgroups, chat and instant messaging were available for everyday users from teenagers to grandparents and this has attracted many linguists. In CMC, the common way of communicating is text-based which takes on a variety of forms like e-mail, real-time chat, and discussion groups, and so forth. In each form, depending on the messaging system, social and cultural context and linguistic properties vary.

Although much of the language on the Internet is written, Internet users commented that the Internet written language is more like speech than writing (Baron, 1998; Crystal, 2001). According to Leonard Bloomfield (1933, p. 21), the language on the Internet is a way of recording language with visible marks. The increased use of the Internet has changed the use of language, including faster text composition and reading (Baron, 2002). Discourse features such as ‘Well’ and ‘Umm’ (Crystal, 2006) are used in written language on the Internet (Werry, 1996; Yates, 1996; Danet & Herring, 2007). In fact, online language shares features with formal and informal writing and with formal and informal speech. The linguistic properties of the language on the Internet are different from the language used before, and this is called the “electronic revolution” (Crystal, 2006). CMC commonly uses the present tense, contains first and second person pronouns, and is generally informal. Yates (1996) found that, in CMC data, modal verbs and first and second person pronouns occurred more frequently than in written and spoken data. Similarly, in 2001 Crystal analysed different types of texts on the Internet to compare written and oral texts. He found that the CMC data had characteristics of both spoken and written genres. Some linguistic features such as abbreviations and emoticons occurred more frequently in CMC data than either the written or the spoken language (Bullock & Toribio, 2009). Also, according to Baron (1984, p. 131) CMC language has fewer subordinate clauses and a narrower range of vocabulary, which would result in a decrease in the expressive functions of language.

David Crystal (2006) used the term “Netspeak” for online language. Netspeak has more properties in common with writing than with speech, but it is the spoken language which has been written down (Baron, 2008). CMC is a hybrid between speaking and writing and the term *written speech* is often used to refer to CMC (Bullock & Toribio, 2009). Netspeak, on its part, is a global term which refers to the digital form of any language. In this research, the term

Netspeak will be used to refer to the online language which has non-standard language features. Turkish Netspeak is the digital form of the Turkish language with non-standard features.

The usage of many languages on the Internet has been expanding over time, although the Internet was developed as an English-based network (Baron, 2003). By 2050, the estimated number of Chinese native speakers will be 1.4 billion and English native speakers will be only slightly over 500 million; and according to Accenture Consulting projection, the dominant language on the Internet will be Chinese (Graddol, 1997, p. 27). Tyler Chambers (1992) comments that single language sites are useless and the future depends on the level of English within a country. According to Chambers, ‘the future of the Internet is even more multilingualism and cross-cultural exploration and understanding than we’ve already seen.’ (Crystal, 2006, p. 235). The web must allow people with different economic and political situations, people with physical or cognitive disabilities, and people with different cultures and different languages with different characters to have equal access (Berners-Lee, 2000; Crystal, 2006). However, it is impossible to say which developments will be a permanent feature of the language, because it is not possible to predict language change but only recognise when it has occurred (Herring, 2001).

#### ***2.4.1 Spelling on the Internet***

Natural language processing is a field of computer science, artificial intelligence, and computational linguistics. It focuses on the interactions between computers and human (natural) languages. Many natural language processing researchers focus on non-standard spelling on the Internet, but little attention has been given to why the language in social media differs from traditional language. The user’s communicative options, for example the characters on the keyboard, determine the linguistic capacity, the information that can be sent; and the size and the configuration of the screen determines the type of information that can be seen, the receptive linguistic capacity. Both the sent and received information is constrained linguistically by the properties of the software and hardware linking the users (Crystal, 2006). According to Jones (2010), the reasons for using non-standard spelling online are that people are unsure of the correct spellings, it is faster, it has become the norm, and people want to represent their own dialects and/or accents. Although Thurlow (2006) commented that people who use non-

standard language in CMC are simply unable to use more standard language, Tagliamonte and Denis (2008), and Drouin and Davis (2009) showed that people using non-standard vocabulary in text messages have both formal and informal registers. In fact, there is little evidence that non-standard language use results from an inability to use standard language.

According to Jones (2010), non-standard spelling occurs due to a number of factors: creativity, the physical restraints of a keyboard, fashion, accent representation, and so on. His research showed that correct spelling is important to the younger generation aged between 18 and 24; but incorrect spelling becomes more and more acceptable in CMC, so much so that it may be used in its incorrect form in other areas of society. According to some research (Purcell, Buchanan, & Friedrich, 2013), most of the teachers think that digital technologies have a positive effect on students' writing by engaging them in the writing process. It allows students to share their work, increase collaboration, and it encourages creativity and personal expression. The research also showed that teachers had some concerns such as students writing becoming informal, fast and careless. The 40% of teachers think that digital technologies make students more likely to "use poor spelling and grammar". On the other hand, students believe that online communication or text messaging is not writing. Of the students, 60% think that the writing they do for school and outside the school via instant messaging, phone text messaging, email and social networking sites are different. Teenagers generally think that the Internet does not have a bad influence on their writing; but 50% say they sometimes use informal writing styles instead of formal writing styles, and 38% say they have used shortcuts in their assignments such as "LOL" which stands for "laugh out loud". Both parents and students believe that good writing is essential to be successful in professional life, but students do not feel that their writing and quality of their ideas improve when using computers.

One of the common non-standard spelling phenomenon found in the English language while communicating online is repeating characters in order to emphasise. Brody and Diakopoulos (2011) found examples of expressive lengthening of words by repeating a single letter in English. The research found that this phenomenon occurs an average of every six tweets on Twitter. It is shown that lengthening often used with subjective words, and it is strongly associated with sentiment. Examples (11) and (12) illustrate this expressive lengthening on Twitter:

(11) Nice-> niice, nicccceee,...

(12) Really -> realy, really, realllly, ...

(Brody & Diakopoulos, 2011)

It is important to note that there are no previous studies examining online non-standard spelling on Twitter with respect to gender. A Norwegian text-messaging study (Ling, 2005), showed that women used capitalization and punctuation more correctly than men. Women use more standard language than men, and women's speech reflects more standard pronunciation, vocabulary, and grammar than men's. The reason why women speak more correctly than men could be because women are simply socialised to speak more correctly and they are the model of standard language for their progeny. Also, women's professional choices such as teacher, secretary or stewardess required speaking correctly. The Nation's Report Card in the USA showed that women consistently outscored men on the writing component of the test (Baron, 2008). In summary, in CMC non-standard spelling in English language is a common phenomenon and might occur due to several factors.

#### **2.4.2 Online Abbreviations**

Abbreviation is the short form of a word or phrase, used mainly in writing to represent the complete form of the word. Abbreviations usually have a full-stop at the end like *Prof.* which stands for professor. Abbreviations can be formed by omitting syllables, which is called "clipping". The abbreviation of photograph is "photo" which is formed by keeping the beginning of the word and clipping the rest of the word. Abbreviations can be formed from the first letters of the word or phrase, like PC, which stands for personal computer. This type of abbreviation, formed from the first letters of each word, is called an "acronym". NATO, which stands for North Atlantic Treaty Organisation, is an example of an acronym (Cambridge Dictionary, 2017b). In traditional writing, abbreviations are a part of handwritten manuscripts and print. In CMC, it is not surprising to see more informal linguistic conventions than in traditional off-line writing. In this research, abbreviations, lexical shortenings, clippings and acronyms found on Twitter were analysed together as online abbreviations.

Abbreviations, smiles and haphazard grammar are generally accepted in the CMC world (Lee C. , 2002). The process of using abbreviations not only saves time and energy, but also there is an economic value, as the most common function of abbreviations in CMC is to save energy

and space which can be explained by the principle of economy. When the principle of economy is applied to computer-mediated discourse, it refers to using fewer keystrokes to save time and energy. That is, instead of forming a full sentence, by using half of the characters the same information can be transmitted as in `aru2cnmel8r` (Are you two seeing me later?) (Crystal, 2006). According to Murray (1990, pp. 43-44) economy of effort is one of the main motivations for computer science professionals to "delete subject pronouns, determiners, and auxiliaries; use abbreviations; do not correct typos; and do not use mixed case" while communicating online. San (2009) showed that when Chinese words and expressions do not have the suitable English translations, Chinese bloggers switch from Chinese to English, as terms in English can be abbreviated or further contracted. In other words, in order to save energy and space, people communicating online code-switch to English when the English equivalents are shorter or can be abbreviated. Most of these features are used to economise on typing effort, communicate in a creative way and imitate the spoken language. These features and strategies of simplified communication are the result of users adapting the online communication to their needs to express themselves, which resulting in speech-like written communication (Herring, 2001). According to David Crystal, another motivation to use abbreviations in CMC is to show one's group membership among network cognoscenti. Abbreviations in CMC are like the use of slang in face-to-face communication, which indicates a group membership (Crystal, 2003, p. 53).

Spoken language features are more common among younger users than older users. Rehm (2002) showed that the language used by students and university staff was different in terms of spoken features and emoticons. The youthful population familiar with Netspeak use abbreviations in other situations such as. `Msg` (message), `F2T` (free to talk), `Mob` (mobile), or `RUOK` (are you OK?). According to Jacob Eisenstein (2013), `lol` (laugh out loud), `lmao` (laughing my ass off), `smh` (shake my head), and `ikr` (i know, right?) are the main abbreviations used in CMC. Besides these abbreviations, there are many examples involving vowel deletion such as `b` (be), `latr` (later) and `ovr` (over). In many cases, vowels are omitted and vowel-less items such as `TXT` (text) and `XLNT` (excellent) are used. However, it is difficult to decide whether these examples represent lexical shortening, laziness, or simple typing mistakes (Crystal, 2006; Baron, 2008).

In CMC, abbreviations have a bigger importance when the number of characters that can be transmitted in a single message is restricted. Twitter has a limitation of 140 characters in each message and this limitation is usually cited as the explanation for "incorrect" language (Finin,

et al., 2010). As Twitter is concerned with social events and self-presentation, it might encourage the use of non-standard language (Ramage, Dumais, & Liebling, 2010). The analysis of a dataset of one million English tweets shows that the top five shortenings used in Twitter are as below:

your and you're -> ur

with -> wit

going -> goin

know -> kno

about -> bout

(Gouws, Hovy, & Metzler, 2011)

Although the main explanation for shortenings used online is the character limitation, Jacob Eisenstein (2013) shows that these shortenings are used even in the short messages where there is no character limitation. In fact, Twitter's character limitation might have caused the habit of using shortenings but it is not the main reason for using shortenings in CMC.

As in the case of age and gender, there is no previous study on the use of abbreviations on Twitter by Turkish people. Ling (2005) analysed Short Message Service (SMS) text messages and observed that women use significantly more abbreviations than men, and 20% of the female 13-15 year olds used abbreviations where only 3.5% of 35-44-year-old women used them. Teenagers and young adults used abbreviations more frequently than other age groups in their text messages. Similarly, studies of abbreviations, acronyms, and emoticons among young people in Canada (Tagliamonte & Denis, 2008) and in the UK (Thurlow, 2003) showed that lexical shortenings are more common in younger teenagers, especially girls (Herring, Stein, & Virtanen, 2013). In contrast to these two studies, Rai (2010) found that there is no significant difference between men and women in the abbreviation of SMS texts. Overall, in CMC, abbreviations are widely used especially by the younger generations.

### ***2.4.3 Turkish Netspeak***

Turkish, with its widespread use of the internet, has undergone many changes in its structure. The findings of previous studies (Erdogan & Yaman, 2007; Temur & Vuruş, 2009; Bullock &



Toribio, 2009; Akkoyunlu & Soylu, 2011; Tastan, 2012; Malazi, 2013) show that Turkish has had a high degree of change in various linguistic dimensions. For instance, Erdogan & Yaman (2007), investigated the effects of the Internet on the Turkish language and found out that new expressions, patterns, symbols and usage practices had entered into the Turkish language. In other words, the Internet has changed the content and written language characters, and words taken from English have changed the structure of the language.

According to Bulut (2013), social media and mobile phones directly affect Turkish students' language development and communication. Bulut showed that, with the increasing use of the Internet and social media, reading habits have decreased, Turkish vocabulary usage has shrunk, and Turkish words are replaced with foreign words used on the Internet. However, there is a surprisingly small body of literature that is concerned with the Turkish language in CMC. Data from previous studies suggest that the Internet has affected the content and symbols of written Turkish. Although there are previous studies on the Turkish language in CMC, no previous study has investigated the use of non-standard spelling and abbreviations used by Turkish people while communicating online with respect to age and gender. A more detailed account of Turkish spelling on the Internet is given in the following section.

#### *2.4.3.1 Turkish Spelling on the Internet*

The Turkish language belongs to the Altaic branch of the Ural-Altaic language family and Turkish alphabet is a Latin-based alphabet. It consists of 8 vowels and 21 constants. Constants are b, c, ç, d, f, g, ğ, h, j, k, l, m, n, p, r, s, ş, t, v, y, and z; and the vowels are a, e, ı, i, o, ö, u, and ü. Previous studies (Erdogan & Yaman, 2007; Temur & Vuruş, 2009; Bullock & Toribio, 2009; Tastan, 2012) on the use of Turkish in the Internet environment provide evidence that Turkish people communicating online, use English characters instead of Turkish characters, use “w” instead of “v” and “q” instead of “k”, omit vowels and consonants, and repeat some characters within the words in order to make emphasis

Temur and Vurus (2009) analysed 163 participants' Msn and Facebook texts, and Tastan (2012) analysed 3860 posts of 20 university students, aged between 19 and 24 for 2 months, and both studies show that Turkish native speakers communicating online use English characters (c, ı, g,

s, o, u), instead of Turkish characters (ç, ğ, ı, ş, ö, ü). Substitution of Turkish characters by the English characters can be seen in examples (13) and (14) below:

(13) *cok uzgunum*

Correct Form: çok üzgünüm

Translation: I am so sorry.

(14) *gorusuruz optum*

Correct Form: görüşürüz öptüm

Translation: See you kisses

(Temur & Vuruş, 2009)

As can be seen in examples (13) and (14) above, the phonetic and orthographic characteristics of the Turkish language have been changed in CMC; and the reason for this might be speed, laziness or the keyboard used simply does not have these characters. Furthermore, Yaman and Erdogan (2007), Temur and Vurus (2009), and Tastan (2012) show that Turkish people communicating online used “w” instead of “v” and “q” instead of “k” as illustrated in following examples (15) and (16):

(15) *Uzayli dowmesi*

Correct form: Uzaylı dövmesi

Translation: Alien tattoo.

(Tastan, 2012)

(16) *yaww boswer canını sıkma*

Correct form: Boşver ya canını sıkma

Translation: Never mind. Do not bother.

(Temur & Vuruş, 2009)

Another effect of the Internet on the Turkish language found in previous studies (Erdogan & Yaman, 2007; Temur & Vuruş, 2009; Bullock & Toribio, 2009; Tastan, 2012) is vowel and consonant omission. Examples (17) and (18) illustrate the vowel and consonant omission on the Internet:

(17) *tmm*

Correct Form: tamam

Translation: Ok

(18) *eet iyi dileklerin icin tesekkurler*

Correct form: Evet. İyi dileklerin için teşekkürler.

Translation: Yes. Thank you for your best wishes.

(Tastan, 2012)

Also, Turkish native people communicating online repeat some characters within the words in order to place emphasis while communicating online (2007) (Yaman & Erdogan, 2007; Temur & Vurus, 2009; Bullock & Toribio, 2009; Tastan, 2012). Examples (19) and (20) illustrate character repetition to emphasise:

(19) *seniii çoook seviyorummm*

Correct Form: Seni çok seviyorum

Translation: I love you

(20) *mutluyuuuuuumm*

Correct form: Mutluyum.

Translation: I am happy.

(Tastan, 2012)

According to Malazi (2013), young generations especially do not pay attention to using the correct form of the Turkish language while communicating online. According to research conducted among 334 women and 118 men, a total of 452 teacher candidates, in order to determine the attitudes towards spelling and punctuation used in social communication tools, showed that there is not a significant difference between female and male teachers; but the attitude of the female teacher candidates was more in favour of using correct language than that of the male teachers (Eroğlu & Okur, 2014).

#### *2.4.3.2 Turkish Online Abbreviations*

So far, very little attention has been paid to the Turkish and English abbreviations used on the Internet by Turkish people. The present research explores, for the first time, Turkish and English abbreviations with respect to age and gender. In order to economise on typing effort, express oneself in a creative way, and imitate spoken language, Turkish people communicating

online use abbreviations. Table 5 presents the main Turkish abbreviations used in online communication (Baris, 2013).

Words	Abbreviation	Translation
Allah belanı versin	Abv	God damn you
Allah'a emanet ol.	Aeo	Be safe
Bugün	Bgn	Today
Evet	E	Yes
Görüşürüz	grş	See you
Güle Güle	Grşz, By, BB	See you
Hayır	H	No
Hayırlı günler	Hg	Have a good day
İnşallah	inş	hopefully
Lütfen	Ltfn	Please
Kendine iyi bak.	Kib	Take care
Merhaba	Mrb	Hi
Ne haber?	nbr	What's up?
Neredesin?	Nrd	Where are you?
Ne zaman?	Nzm	When?
Selam	Slm	Hi
Seni seviyorum.	Ss	I love you
Tamam	Tamm,	OK
Tebrikler	Tbr	Congratulations
Teşekkür ederim	tşk	Thank you
Yarın	Yrn	Tomorrow

Table 5: Turkish abbreviation in CMC (Baris, 2013)

Other than Turkish abbreviations, it has been previously observed that Turkish people use English abbreviations while communicating online. Research by Tastan (2012) showed that Turkish native university students use English abbreviations such as *wc*, *pc*, *vol.*, *VIP* while communicating online on Twitter. Examples (21) and (22) below illustrate the English abbreviations used by Turkish people:

(21) *pc.mi ödünç istedi*

Translation: S/he wanted to borrow my *pc*.

(22) Okuldaki *wc*.ler kapalı.

Translation: *WCs* are closed at the school.

(Tastan, 2012)

Previous studies provide evidence that in CMC, the use of Turkish and English abbreviations among Turkish people is a common activity.

#### ***2.4.4 Netspeak and Online Glocal Identity***

The term Netspeak (Crystal, 2006) has been used to refer to the online written language with non-standard language features. Netspeak is speech written down and in CMC, using Netspeak with its non-standard language features, is a common activity. However, the use of Netspeak does not indicate that the users lack the knowledge of the standard language. In fact, only a small percentage of the non-standard features appearing on the Internet is caused by a lack of standard language knowledge (Herring, 1998; Drouin & Davis, 2009). In fact, the way people interact textually with other people in social media sites gives information about their online identity. The use of Netspeak in CMC varies within each group and indicates group membership. In other words, Netspeak is a way of presenting online identity and establishing group membership (Crystal, 2003, p. 53), rather than indicate an inability to use standard language (Bucholtz & Hall, 2005) and although the main motivation to use abbreviations is to save time and energy, another motivation is to show one's online group membership (Crystal, 2003). Shortenings and abbreviations are thus used even though there is no character limitation in a specific social site (Eisenstein, 2013).

Using Netspeak or not using Netspeak while writing in Turkish, show group membership and present one's online identity. Turkish Netspeak, non-standard use of Turkish language: using English characters (c, l, g, s, o, u) instead of Turkish characters (ç, ğ, i, ş, ö, ü), "w" instead of "v" and "q" instead of "k", omitting vowels and consonants, and repeating some characters within the words to make emphasis, and the use of Turkish online abbreviations are ways of Turkish people showing their online identities.

The literature review of this study has been presented in four different sections and the final section of the chapter was devoted to Netspeak. We could conclude that Turkish is one of the languages that has undergone many changes in its structure and content with the effect of CMC. Turkish people while communicating online use non-standard spelling, borrow lexical items from English and code-switch to English to reach a global audience to present their online identities.

## **CHAPTER 3: METHODOLOGY**

The aim of this study is thus to investigate how Turkish people use Netspeak and English to project their online glocal identities with respect to age and gender while communicating online in Twitter. This chapter provides a detailed description of the methodology used in this research. Section 3.1 describes the data collection and selection process, followed by 3.2, which details participant selection, and finally 3.3 presents an outline of the procedures used to analyse the data.

### **3.1 Data Collection**

The data were gathered from Twitter, an online social networking service where users share their ideas with their followers by writing in to the “what’s happening?” section on their homepage. In this research, data was taken from Twitter because large datasets can be gathered through a single streaming interface and the data are public by default. These two features make it easier to obtain data from Twitter than from any other social media sites (Sakaki, Okazaki, & Matsuo, 2010; Benson, Haghighi, & Barzilay, 2011; Eisenstein, 2013). For this research, a Twitter account was created and the participants were followed with this account during the research period. In Figure 2, a Twitter homepage can be seen. Some of the participants had protected tweets, which can be distinguished by the lock icon next to their nick names. When participants protect their tweets, their tweets are not public anymore. Protected tweets can only be seen by the user’s followers, whereas public tweets can be seen by anyone. Participants with protected tweets receive a request when a new person wants to follow them. In this study, after informing the participants about the study, following requests were sent to those participants who had protected tweets (About public and protected Tweets, 2017).

All the tweets by 80 participants for three months, from October 2014 to December 2014, were taken from their home page. Although around 10,000 tweets were gathered from participants’ homepages, only around 5,500 of them were written by the participants themselves and the remaining 4,500 tweets were retweets. In this research, only the tweets written by the participants were taken in to consideration and analysed. From the gathered data, retweets were disregarded, as these tweets were not written by the participants. Retweets are written by other users in Twitter and participants can share the same tweet just by clicking the retweet button

next to a tweet. When participants click the retweet button, a pop-up shows the Tweet and a comment box. Participants can add their own comments in the comment box before sharing a tweet written by another participant. In this research, comments written before sharing a tweet were taken in to account, as they were written by the participants. In Twitter, a tweet can contain a link to a video or to an external webpage. When participants share a link in Twitter, for instance a song from YouTube, an information box appears, which contains a text title and description. In this research, link titles were disregarded as well, as they were not written by the participants; only the comments written by the participants before sharing a link were analysed.

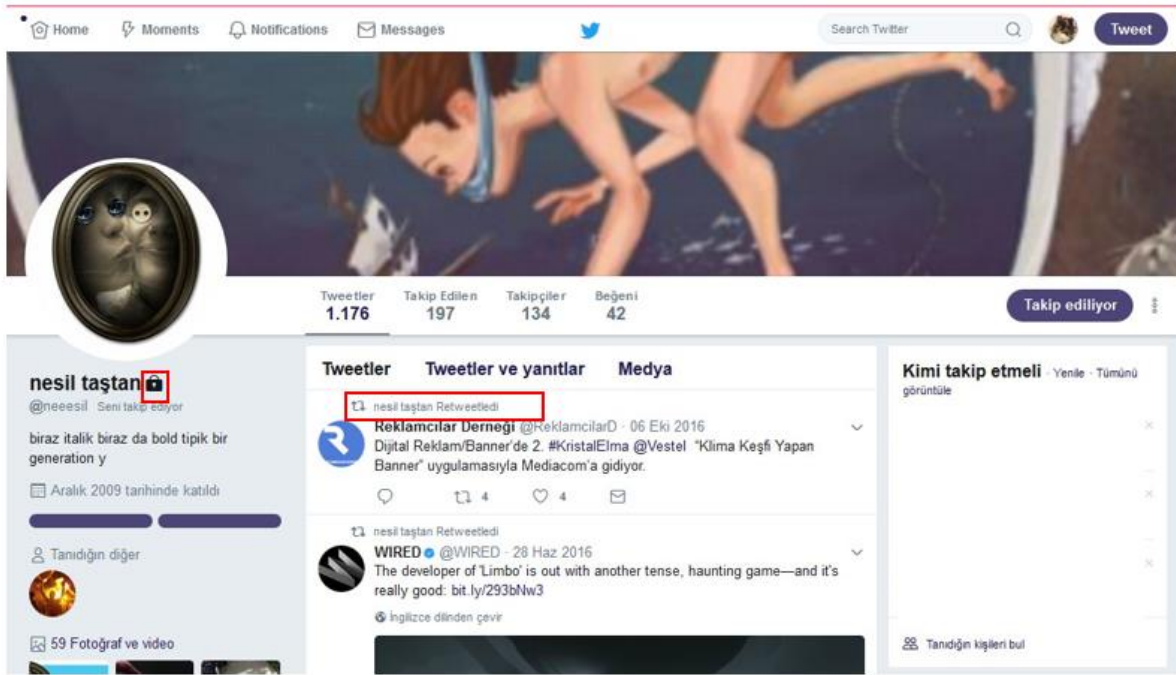


Figure 2: Twitter home page

### 3.2 Participants

In this research, there are 80 participants; 40 men and 40 women (Table 6). Participants were divided into 8 groups depending on their age and gender. There are 10 female and 10 male high-school students aged between 14 and 18, 10 female and 10 male university students aged between 19 and 24, 10 female and 10 male university graduates aged between 25 and 44 and finally 10 female and 10 male middle-aged adults aged between 45 and 64. In order to protect participants' privacy, prior to data collection, participants received an explanation of the



research. A Twitter account was created for this research and participants were followed with this account during the research period.

<b>Participants</b>	<b>Age</b>	<b>Female</b>	<b>Male</b>
High School Students	14-18	10	10
University Students	19-24	10	10
Graduates	25-44	10	10
Middle-aged Adults	45-64	10	10

Table 6: Participants

The 10 female and 10 male high school students are from Doga Okullari Sisli High School<sup>1</sup>. They volunteered and provided their nicknames on Twitter. This private school was chosen because of the English education programme provided for the students. The university students were chosen from Bosphorus University<sup>2</sup>, which is a public university consistently ranking the highest in Turkey, having the highest number of applicants via Turkish university entrance examinations. The medium of instruction at this university is English and to study a degree, students should pass The Test of English as a Foreign Language (TOEFL) with minimum 550 points and writing with 4.5 points, or have one year of English prep class. Another reason for choosing Bosphorus University for this study is to be able to compare the results of the present study with the previous study (Tastan, 2012) which was conducted among university students studying at this university as well. Participants among the graduates, 10 female and 10 male graduates aged between 25 and 44, are all graduates from different universities in Turkey where the medium of instruction is English. They are currently working in different private sectors in Turkey and some of them are doing their master degrees. Finally, the middle-aged adults are all university graduates and they all studied at universities where they had classes in English. Some of the middle-aged adults in this study are already retired and some are still working.

The current study is limited by the lack of information on the participants' socioeconomic status which is measured based on income, education and occupation (Socioeconomic status, 2017). Bosphorus University is a public university and students attending to this university are likely

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<sup>1</sup> Doga Okullari Sisli High School: <http://www.dogaokullari.com/eng#>

<sup>2</sup> Bosphorus University: <http://www.boun.edu.tr/en-US/Index>

to have different socioeconomic statuses. However, we could say that the high school students, graduates and middle-aged adults participating in this study would probably have high socioeconomic statuses, as Doga Okullari is a private school, it is possible to say that most of the students attending to Doga Okullari have a high socioeconomic status. Similarly, all the graduates and middle-aged adults are working or retired from important companies in Turkey, which might indicate high socioeconomic status.

### **3.3 Procedures**

In this research, Microsoft Office 2013 Word and Excel were used to gather and organise the data. All the tweets and media posted on a participant's homepage were copied and, when pasting on a word document in the right-click drop-down menu, the "keep text only" option was chosen. With this option, all the photos and videos were discarded. All retweets were found and removed from the list. All the remaining tweets and comments written by the participants were pasted in an excel file and they were divided into three groups: a) tweets in Turkish, b) tweets with English words and phrases, and c) tweets only in English. In the data, there are 4614 tweets in Turkish, 355 tweets in Turkish and English, and 309 tweets in English. Although around 10,000 tweets were gathered from participants' homepages, only around 5,500 tweets were analysed as previously mentioned.

In the tweets in Turkish, Netspeak – spelling, repeated characters and Turkish online abbreviations – was analysed. In the tweets in Turkish and English, language contact phenomena – English online abbreviations, lexical borrowing from English and code-switching between English and Turkish – were analysed. Finally, in the tweets in English, only contents of the posts were analysed. The cases of lexical borrowing, CS and posts in English found in the data were analysed with respect to their contents as well, and, finally, the influence of English on Turkish with respect to contents was calculated. All these analyses were done with respect to age and gender. The results were analysed firstly with respect to age, followed by gender and finally considered jointly, with respect to age and gender.

In this research, there are 80 participants and 4 different age groups: high school students, university students, graduates and middle-aged adults. Every participant's tweets were analysed separately, but when the data are presented with respect to age, the average results of the 20

participants within an age bracket are calculated. The results with respect to age indicate the average results of 20 participants in that age group. When the data are analysed with respect to age and gender, the results indicate the average results of 10 participants within each age and gender subsection. For example; in Figure 3, it is apparent that female high school students have 818 tweets in Turkish, and in Figure 4 we can see that 92.67% of their Tweets are in Turkish. 818 tweets indicate the total number of tweets of 10 female high school students and 92.67% indicates the average percentage of these 10 female high school students.

Participants	Age	Posts in Turkish		Posts in Turkish and English		Posts in English	
		Female	Male	Female	Male	Female	Male
High School Students	14-18	818	900	31	54	29	36
University Students	19-24	688	293	66	36	19	16
Graduates	25-44	235	877	32	114	58	142
Middle-aged Adults	45-64	256	547	2	20	8	1

Figure 3: Language choice on Twitter: Numbers

Participants	Age	Posts in Turkish		Posts in Turkish and English		Posts in English	
		Female	Male	Female	Male	Female	Male
High School Students	14-18	92,67%	90,00%	3,79%	6,00%	3,55%	4,00%
University Students	19-24	87,65%	82,25%	9,59%	12,29%	2,76%	5,46%
Graduates	25-44	61,70%	70,81%	13,62%	13,00%	24,68%	16,19%
Middle-aged Adults	45-64	96,09%	96,16%	0,78%	3,66%	3,13%	0,18%

Figure 4: Language choice on Twitter: Percentages

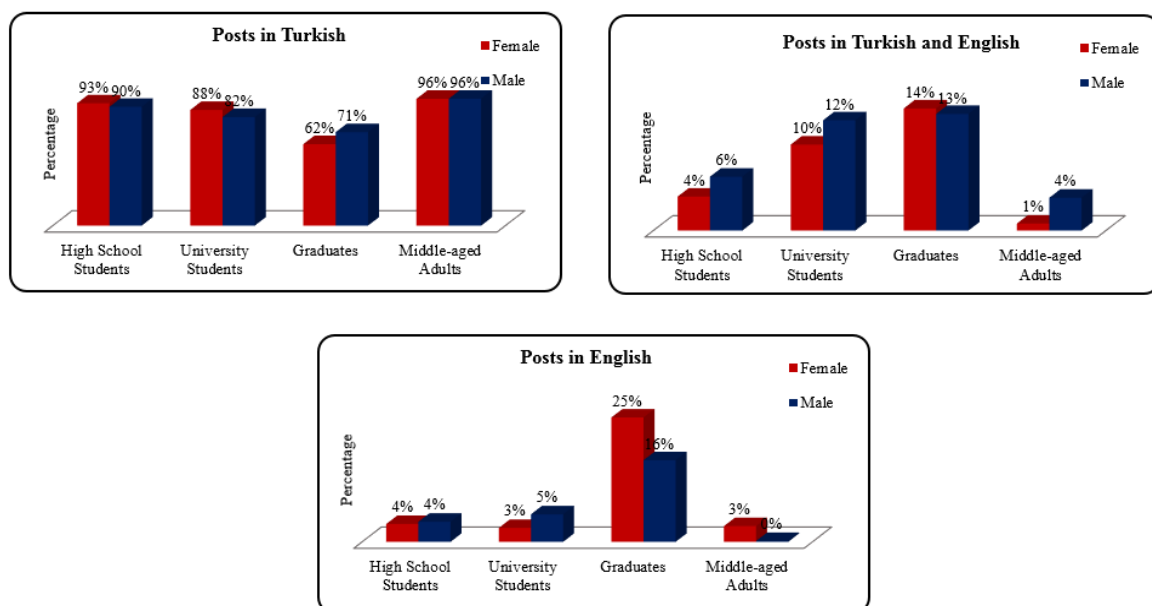


Figure 5: Language choice on Twitter: Graphs

During the present research, tables and graphs were created in Excel and the same procedure was followed for each section. Firstly, the language choice on Twitter with respect to age and gender was analysed. To clarify the procedure followed for each section, the procedure for this section is explained in detail. In Figures 3, 4 and 5 Excel tables and graphs with respect to age and gender can be seen. The first table shows the total number of tweets in Turkish, in English and Turkish and in English. Using the numbers in the first table, percentages were calculated and the second table was created, and, finally, using the second table, graphs for language choice on Twitter with respect to age and gender were created.

Additionally, correlations between the results of each section and age were calculated. In Figure 6, the correlation between age and number of tweets can be seen. In Excel, the Correl function was used and two sets of data – the average age of the participants (16, 21.5, 34.5 and 54.5) and the number of Tweets – were chosen. A negative correlation of -0.75 indicates that there is an opposite relation between age and number of tweets. That is, as the age of the participants increases, the number of tweets decreases. A positive correlation indicates that as the age of the participants increases, the number of tweets increases. In this research, correlations beyond at least +0.5 or -0.5 were considered as significant (Rumsey, 2016).

	A	B	C	D
1	Number of Total Tweets & Age			
2			Age	Number of Tweets
3		High School	16	1868
4		University Students	21,5	1118
5		Graduates	34,5	1458
6		Middle-aged Adults	54,5	834
7		Correlation	-0,75	
8				

Figure 6: Correl function

When the data were analysed with respect to age and gender, correlations between age and language choice were calculated for women and men. In Figure 7, the table on the left shows that the correlation between age and posts in Turkish for women is 0.05 whereas the table on the right side shows that the correlation for men is 0.29. In this section, weak correlations were found between age and posts in Turkish, but it was also noticed that there are strong negative correlations of -0.99 when middle-aged adults are not taken into consideration. In each section

of the paper, in order to create tables and graphs and to calculate correlations, the same procedures were followed.

		Posts in Turkish			Posts in Turkish
Participants	Age	Female	Participants	Age	Male
High School Students	16	92,67%	High School Students	16	90,00%
University Students	21,5	87,65%	University Students	21,5	82,25%
Graduates	34,5	61,70%	Graduates	34,5	70,81%
Middle-aged Adults	54,5	96,09%	Middle-aged Adults	54,5	96,16%
Correlation		0,05	Correlation		0,29
No Middle-aged Adults		-0,99	No Middle-aged Adults		-0,99

Figure 7: Calculating correlations

After analysing these language choices on Twitter, in the second part of the research tweets only in Turkish were analysed. Firstly, Turkish abbreviations and expressive lengthening of words were counted and analysed for each group. In order to analyse Turkish spelling on Twitter, the Turkish language was set as the default language in a word document. When the tweets were pasted to the word document, the spelling and proof reading tool underlined the words with the wrong spelling and the number of the tweets having words with wrong spelling were found. In this part, the percentages of Turkish abbreviations, repeating characters and non-standard spelling for each participant were calculated, and averages for each group were gathered in Excel tables. Graphs were created with respect to age, gender, and age and gender jointly. Finally, correlations between age and spelling, abbreviations and repeating characters were calculated.

In the third part of the research, in tweets in both English and Turkish, language contact phenomena were analysed. Firstly, all the English abbreviations in the data were found and analysed for each group. In this study, when English words are borrowed, they are taken as lexical borrowings and when English phrases are used in the tweets they are taken as code-switches. Words borrowed from the English language were highlighted and categorised as nouns, verbs and adjectives/adverbs. The frequency of borrowed items for each age and gender group was found and compared. All the borrowed words were then categorised per lexical borrowing types – core borrowing and cultural borrowing – and then compared. The frequency of types of lexical borrowing was then found, and, finally, all the borrowed words were grouped per their contents, and for each group the percentages were calculated. All the results were gathered in tables, and graphs were created with respect to age, gender and age and gender in

combination. Correlations between age and English abbreviations, borrowed lexical items, lexical borrowing types and lexical borrowing contents were finally also found.

In the next step of the research, code-switching was analysed, followed by lexical borrowing. All the tweets with English phrases were grouped per two types of CS: inter-sentential and intra-sentential, and percentages were calculated for each age and gender group. All the cases of CS found in the data were subsequently categorised per their contents, and for each group percentages were calculated. All the results were gathered in tables, and graphs were created with respect to age, gender, and age and gender jointly. Correlations between age and CS types and CS contents were finally calculated.

In the last part of the research, all the tweets written in only English were analysed and categorised per their contents. Percentages were then calculated for each group. Graphs with respect to age, gender, and age and gender were created and correlations between age and posts in English were calculated.

In order to gain global insight on the influence of English on the Turkish language with respect to age and gender, the results found regarding lexical borrowing, CS and posts in English were finally gathered together (section 4.5.4). The influence of English will be quantitatively analysed with respect to age, gender, and age and gender. Pie charts created for each age and gender group with respect to the topics of the tweets into which English is incorporated, and correlations between age and influence of English for each topic will be calculated.

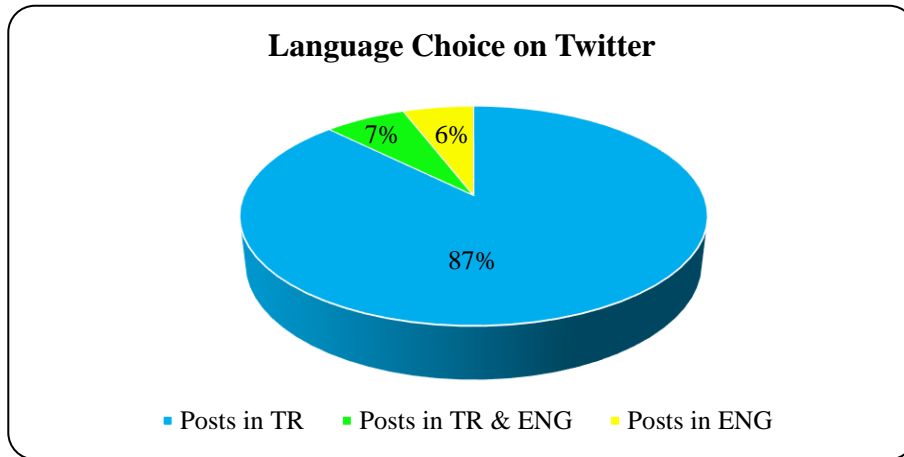
## **CHAPTER 4: ANALYSIS, RESULTS, AND DISCUSSION**

### **4.1 Introduction**

In this paper, data will be presented in 4 main sections: language choice on Twitter (4.2), Turkish Netspeak (4.3), language contact phenomena (4.4) and topics in which English appears (4.5). In section 4.2, language choice on Twitter with respect to age and gender will be presented. In section 4.3, posts only in Turkish will be analysed. In this part, Turkish spelling, Turkish online abbreviations and repeating characters to make emphasis will be analysed with respect to age and gender. Then, in section 4.4; language contact phenomena, posts in Turkish and English will be analysed. Firstly, lexical borrowing items – nouns, verbs and others – and lexical borrowing types – cultural and core borrowings –, will be analysed. Secondly, CS types – inter-sentential and intra-sentential CS – will be analysed with respect to age and gender. In the final section 4.5; topics in which English appears, lexical borrowing topics, CS topics and posts only in English topics will be analysed in terms of age and gender. In each section, results will be presented in percentages with graphs and will be analysed in depth according to age and gender with examples gathered from the data.

### **4.2 Language Choice on Twitter**

In this research, around 5,500 tweets of 80 participants were analysed and it was found that 87% of these tweets were only in Turkish, 7% of the tweets were in Turkish and English and 6% of the tweets were only in English, as shown in the pie chart in Graph 4. These findings are consistent with a previous study conducted among Turkish native university students (Tastan, 2012), both studies show that in every 100 tweets by Turkish people, 7 have English words and 6 are only in English. As stated in the introduction, the research was carried out to find out if Turkish native speakers tend to use English extensively when communicating online to show their online glocal identities. These findings have shown that for 13% of posts of Turkish people, in every 100 tweets 13 have English words or phrases, or they are in English.



Graph 4: Language choice on Twitter

#### 4.2.1 Language Choice & Age

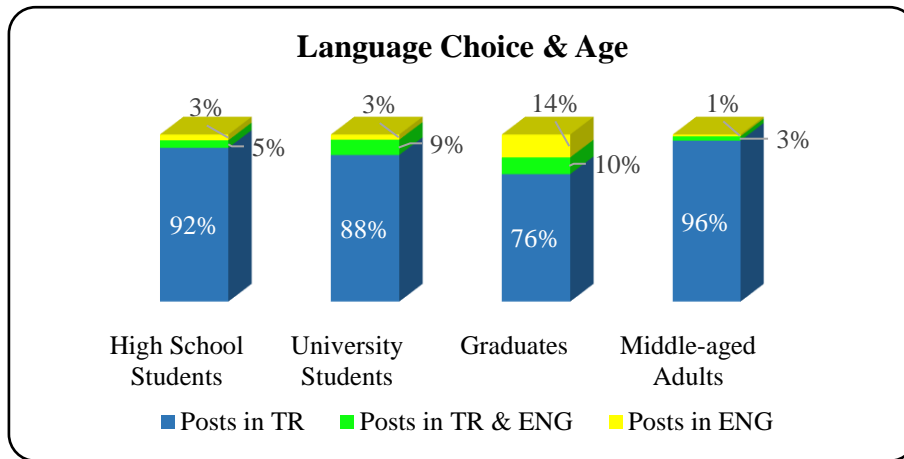
Table 7 shows the number of tweets for each of the age groups considered. As can be observed the number of tweets decreases as the participants' age increases. There is a negative correlation (-0.75) between age and the number of tweets. The data reported here appears to support the assumption that young people are more active in CMC, as they have more posts than middle-aged adults.

Participants	Number of Tweets
High School Students	1,868
University Students	1,118
Graduates	1,458
Middle-aged Adults	834

Table 7: Number of tweets and age

Graph 5 presents the language choice on Twitter for each age group. The percentages in Graph 5 reflect that 96% of the tweets of middle-aged adults, 92% of the tweets of high school students, 88% of the tweets of university students and 76% of the tweets of graduates are only in Turkish.





Graph 5: Language choice and age

This suggests that Turkish middle-aged adults and high school students are more likely to send posts in Turkish than in English. Besides, there is a weak positive correlation (0.21) between age and posts in Turkish. However, when middle-aged adults are not taken into consideration, there is a strong negative correlation of -0.99 between age and posts in Turkish, which indicates that, from high school students to graduates, the number of Turkish only tweets decreases as the age of the participants increases.

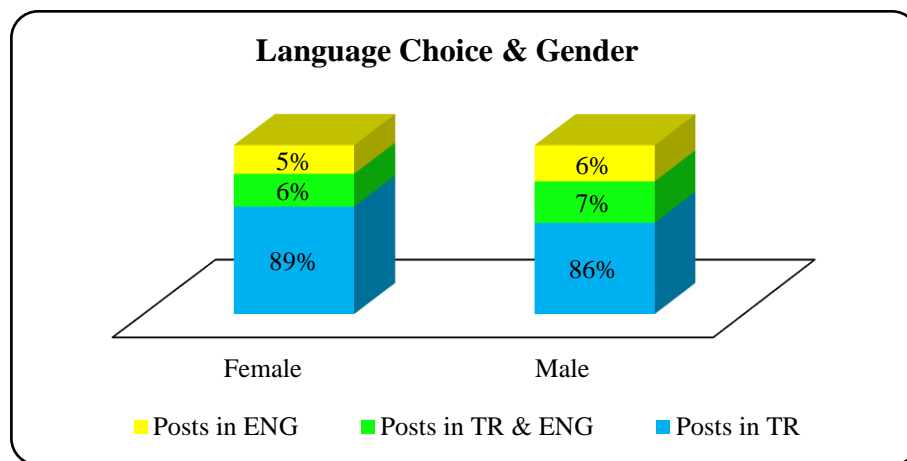
It can be also seen in Graph 5 that the percentages of tweets in Turkish and English reach a peak with graduates (10%) and bottoms out with middle-aged adults (3%). These findings seem to suggest that the percentages of Turkish and English posts go up from high school students to graduates but go down with middle-aged adults. There is also a weak negative correlation (-0.4) between age and posts in Turkish and English. However, when middle-aged adults are not taken into account, there is a positive correlation of 0.82 between age and posts in Turkish and English, which indicates that the percentages of posts in Turkish and English increase from high school students to graduates. In other words, university students have more posts in Turkish and English than high school students, but fewer posts than graduates.

Graph 5 shows the percentages of tweets in English for each age group. The results indicate that graduates write only in English more often than any other age group (14%), followed by high school and university students (3%). Only 1% of middle-aged adults' posts are in English. Besides, there is a weak negative correlation (-0.07) between age and posts in English which is not considered to be significant. However, when middle-aged adults are not taken into consideration, there is a strong positive correlation of 0.94 between age and posts in English.

This implies that the percentage of posts in English increase as the age of the participants increases from high school to university students and finally to graduates.

#### 4.2.2 Language Choice & Gender

In the gathered data, it was found that female participants have a total of 2,242 tweets whereas male participants have 3,063 tweets. From this, we could say that the male participants in the study are more active in CMC since they have more posts than female participants. Graph 6 shows the percentages of language choice of female and male participants.



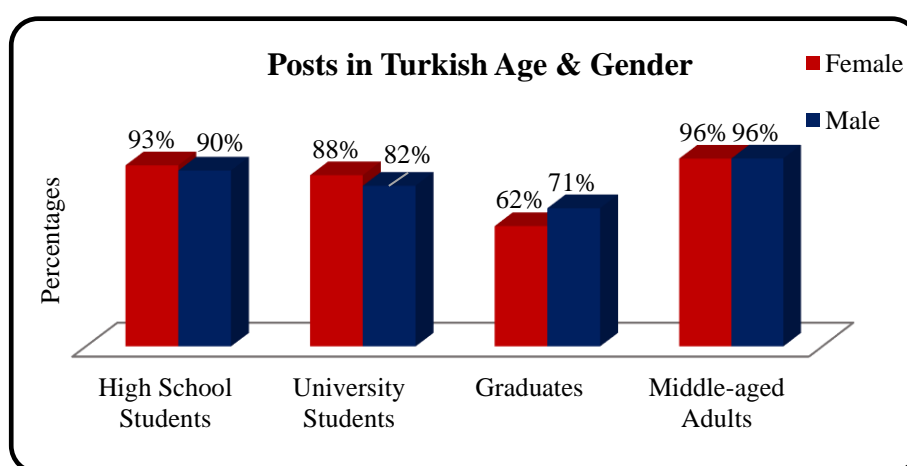
Graph 6: Language choice and gender

It is apparent from Graph 6 that females have slightly more posts only in Turkish (89%) than males (86%). In the posts in Turkish and English, there is no significant difference between female (6%) and male (7%) participants. In the posts written only in English, it can be observed that male participants write solely in English (6%) slightly more than females (5%).

#### 4.2.3 Language Choice: Age & Gender

Graph 7 shows the percentages of Turkish posts for each age and gender group. As can be observed, there is no significant difference between female and male participants within all age groups. Among high school students and university students, females have slightly more Turkish posts than males, whereas among graduates, males have more Turkish posts than

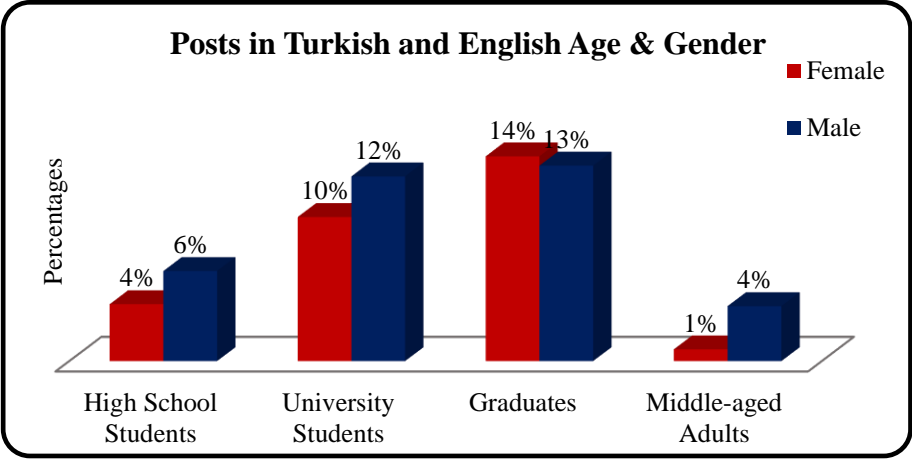
females. Among middle-aged adults, 96% of both female and male participants' posts are only in Turkish. There is a weak, non-significant, positive correlation (0.04) among females between age and posts in Turkish but when female middle-aged adults are not taken into consideration, there is a strong negative correlation of -0.98 between age and posts in Turkish which means that percentage of Turkish posts decrease among females as the age of the participants increases. There is a weak positive correlation (0.29) among males, between age and posts in Turkish but when middle-aged adults are not taken into consideration, there is a strong negative correlation of -0.99 between age and posts in Turkish which implies that from high school students to graduates, both in females and males, percentage of Turkish posts decrease as the age of the participants increases.



Graph 7: Posts in Turkish: age and gender

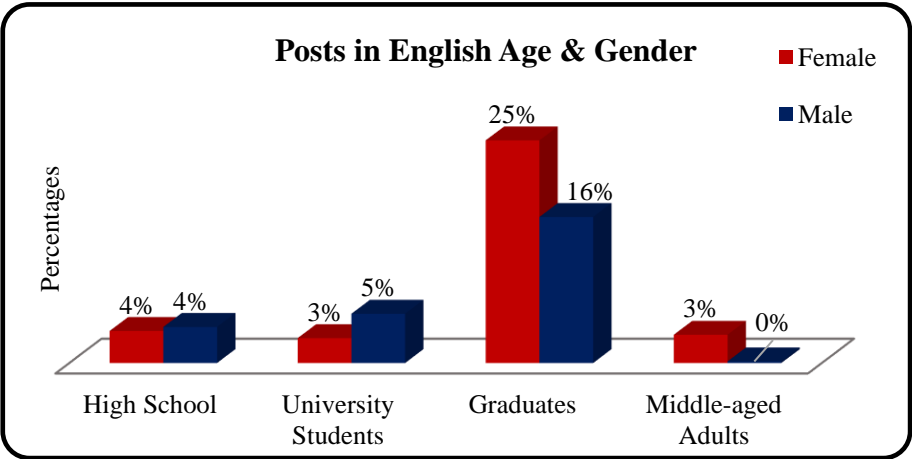
In Graph 8, the percentages of posts in Turkish and English with respect to age and gender can be seen. Male high school students, male university students and male middle-aged adults have more posts in English and Turkish than females. Female graduates are the only group to have slightly more posts in Turkish and English than the males in their cohort. There is a weak negative correlation (-0.33) among females between age and posts in Turkish and English. However, when female middle-aged adults are not taken into consideration, there is a strong positive correlation of 0.94 between age and posts in Turkish and English. There is a weak negative correlation (-0.40) among males between age and posts in Turkish but when male middle-aged adults are not taken into consideration, there is a positive correlation of 0.78 between age and posts in Turkish and English. This suggests that both in females and males,

posts in Turkish and English increase from high school students to graduates as the age of the participants increase.



Graph 8: Posts in Turkish and English: age and gender

In Graph 9, the percentages of posts only in English are presented with respect to age and gender. Among high school students, there is no difference between females and males: 4% of their posts were in English in both cases. However, among university students, males have more English posts than females whereas in the groups of graduates and middle-aged adults, females have more posts in English. There is also a significant difference within the posts in English between female and male graduates. Middle-aged adults almost never wrote in English; only 3% of female middle-aged adults' posts were in English.



Graph 9: Posts in English: age and gender

There is a weak positive correlation (0.1) among females between age and posts in English but when female middle-aged adults are not taken into consideration, there is a strong positive correlation of 0.94 between age and posts in English. There is a weak negative correlation (-0.19) among males between age and posts in English but when male middle-aged adults are not taken into consideration, there is a strong positive correlation of 0.98 between age and posts in English. This evidence suggests that the percentage of posts in English increases from high school students to graduates both in females and males.

#### ***4.2.4 Summary: Language Choice on Twitter***

In this section, language choice on Twitter has been presented. Given that one of our aims was, as mentioned in the introduction, to find the language choice of Turkish people in the study when communicating online with respect to age and gender, the data have shown that high school students and middle-aged adults are more likely to write only in Turkish. Results also indicate that posts in both English and Turkish, and in English only, increase from high school to university students and reach a peak with graduates. Correlations found between age and posts in Turkish, posts in Turkish and English, and posts in English are significantly weak but when middle-aged adults are not taken in to account it was seen that there are strong correlations. Percentages of posts in Turkish decrease as age increases from high school to graduates, with a strong negative correlation of -0.99. Posts in Turkish and English increase as age increases from high school to graduates, with a positive correlation of 0.82, and posts in English only also increase with age, with a strong correlation of 0.94.

Weak connections were found when correlations were calculated separately for females and males between age and posts in Turkish, posts in Turkish and English, and posts in English. When middle-aged adults were not taken in to account it was seen that there are strong correlations. In females, there are strong correlations between age and posts in Turkish, posts in Turkish and English, and posts in English. As age increases from high school students to graduates, posts in Turkish decrease with a strong negative correlation of -0.98, posts in Turkish and English increase with a strong positive correlation of 0.94, and posts in English only increase with a strong positive correlation of 0.94. Similar results were found for male participants; as age increases from high school students to graduates posts in Turkish decrease

with a strong negative correlation of -0.99, posts in Turkish and English increase with a positive correlation of 0.78 and posts in English only also increase with a strong positive correlation of 0.98.

These findings suggest that the need to use English to show online glocal identity increases from high school to graduates. We could say that exposure to the English language socially and professionally increases from high school to university students, and reaches a peak with graduates. Participants were probably exposed to English more at university than at high school, since they study at a university where English is used as the medium of instruction: English is the international language of higher education, and 80–85% of all scientific papers are now published in English or with English summaries (Northrup, 2013). Student exchange programmes and international students at the Turkish universities increase contact with international people and English is used as lingua franca. The Turkish people are exposed to English and probably use English the most after graduating from university and when they start working. A possible explanation for graduates writing both in English and Turkish, and only in English more than any other age group might be because most of the graduates who participated in this research are working in international companies. They are likely to use English more frequently than other groups because most of these multinational companies use English as their official language and English is the lingua franca of business. In other words, their professional needs will mostly likely increase their usage of English and it will be common to use English resources when reading in depth or conducting professional efforts in their areas; science, art, technology, business, and so forth. Graduates working in international companies most likely have more international connections in Twitter. An adjustment of speech to their international audience to present their online glocal identities is also a likely explanation. A search for social approval could equally be an explanation, as the English language is seen as the language of modernity (Myers-Scotton, 2006).

When only gender is considered, no significant differences are found between females and males in the posts only in Turkish, posts in Turkish and English, and posts only in English. However, it was found overall that males write in English and Turkish, and only in English slightly more often than females.

When posts are analysed with respect to age and gender, it was seen that male high school and male university students have slightly more posts in Turkish and English, and in English only

than females. A possible explanation for females to write less in English could be because they do not want to make spelling mistakes while they are writing in English. These results change with graduates, as in this group females write in Turkish and English, and only in English more than males. A reasonable explanation for female graduates to write in Turkish and English, and in English more than male graduates may be that females want to gain approval and social status by imitating a more dominant community to have more prestige.

In this section, we could conclude that using English to present online glocal identity increases from high school students to university students and reaches a peak with graduates. Middle-aged adults and high school students are more likely to write in Turkish only. Graduates write in English and in Turkish and English, more than other age groups. Especially female graduates write in English and Turkish, and in English only, more than any other group which might indicate that female graduates want to adjust their speech to their international audience and need to show their glocal online identities more pressingly than other groups.

### **4.3 Turkish Netspeak on Twitter**

Netspeak is the digital form of a language which reflects the spoken language written down (Baron, 2008). As previously stated, in this research the term Netspeak refers to the online language which has non-standard language features. Turkish Netspeak is the digital form of the Turkish language. In this section, Turkish Netspeak – Turkish spelling, Turkish online abbreviations, and repeating characters to give emphasis on Twitter – will be analysed with respect to age and gender.

#### ***4.3.1 Non-Standard Turkish Spelling***

In this part of the study, spelling within posts only in Turkish will be presented. For this research, around 5,500 tweets were analysed and it was found that 50% of the posts written in Turkish have non-standard spelling. Besides, it has been found that English characters are often used instead of Turkish characters (ı>i, ö>o, ü>u, ç >c, ğ>g, ş>s). The examples (23), (24) and (25) illustrate the substitution of Turkish characters with English ones:

(23) Alerji hastasiysan duzgun nefes alamazsın  
Correct form: Alerji hastasıysan düzgün nefes alamazsın  
Translation: If you suffer from allergies, you cannot breathe properly

(24) Gunaydin  
Correct form: Günaydın  
Translation: Good morning

(25) Sokaga cıkma yasagi NE DEMEK  
Correct form: Sokağa çıkma yasağı ne demek  
Translation: What does curfew mean?

From the gathered data, it was found that “v” is sometimes substituted with “w” and “k” is substituted with “q”. In the following examples (26) and (27), substitution of “v” with “w” and “k” with the English character “q” can be observed:

(26) Teogtan once teoman dinlemeyi sewerim  
Correct form: Teogtan önce Teoman dinlemeyi severim  
Translation: Before Teog I like listening to Teoman

(27) Salak misin tabiqide soruyu dogru yapip yanlis isaretlemedim  
Correct form: Salak mısın tabiki de soruyu doğru yapıp yanlış işaretlemedim  
Translation: Are you dumb? Of course, I did not answer the question right and marked wrong

In the data, it was also found that vowels and consonants are sometimes omitted. Examples (28), (29) and (30) show this vowel and consonant omission:

(28) *Ndn*  
Correct form: Neden  
Translation: Why

(29) Herseyim *cnm* caglam  
Correct form: Herşeyim canım Çağlam  
Translation: My all my dear Çağla



(30) Stresten simdi dusup bayilacam

Correct form: Stresten şimdi *düşüp* bayılacağım

Translation: I will fall and faint because of the stress

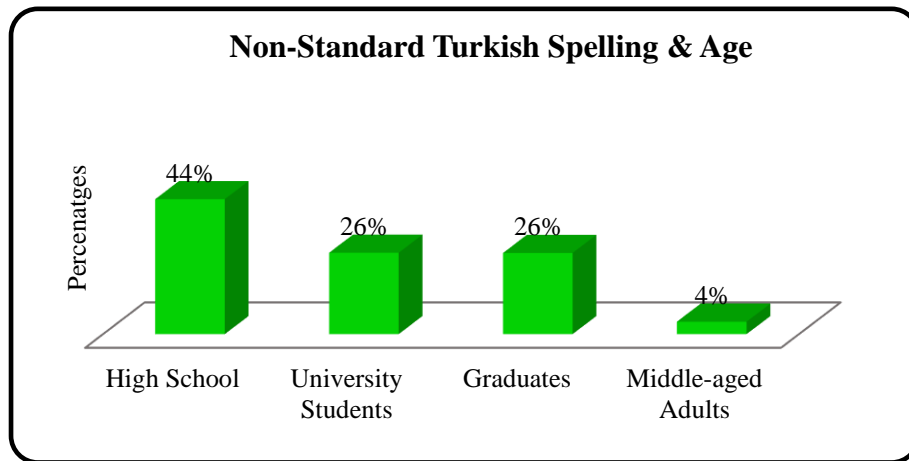
The non-standard spelling examples given above are examples of *written speech*, the spoken language written down, a hybrid between speaking and writing (Bullock & Toribio, 2009). The findings suggest that the non-standard spelling found in the data is consistent with previous research (Tastan, 2012; Temur & Vuruş, 2009).

The reason for the substitution of Turkish characters with English ones might be just because the participants had a keyboard with English characters. But this explanation cannot be used for the substitution of “v” by “w” and “k” with “q” as the English keyboard has all of these four characters. This suggests that substitution of Turkish characters “v” and “k” with English characters “w” and “q” could be a way of showing one’s group membership while communicating online. Additionally, participants using non-standard language by omitting vowels and consonants might be trying to be faster and/or save energy and space. The 140-character limit on Twitter could also be the reason for omitting vowels and consonants. However, as can be observed in the given examples above, characters were omitted even though the posts were short and there was enough space. The reason for omitting vowels and consonants even though there is no character limitation could be explained as the expression of group membership and the construction of an international, Western online identity. In this section, non-standard spellings for Turkish found in the data are presented and in the following sub-sections, will be analysed with respect to age and gender.

#### *4.3.1.1 Non-Standard Turkish Spelling & Age*

Bar chart 10 shows the percentages of non-standard spelling in Turkish posts for each age group. Of the non-standard spellings found in the data, 44% belongs to high school students. Non-standard spelling percentages go down to 26% with graduates and university students, and to 4% with middle-aged adults. There is no difference in non-standard spelling between university students and graduates. However, high school students have the highest percentage (44%) whereas middle-aged adults have the lowest (4%). Present research thus shows that middle-aged adults use less non-standard spelling in their tweets than any other age group,

while high school students have the highest rate. In other words, there is a strong negative correlation (-0.93) between non-standard spelling and age: as the age of the participants increases, the amount of non-standard spelling decreases.



Graph 10: Non-standard Turkish spelling and age

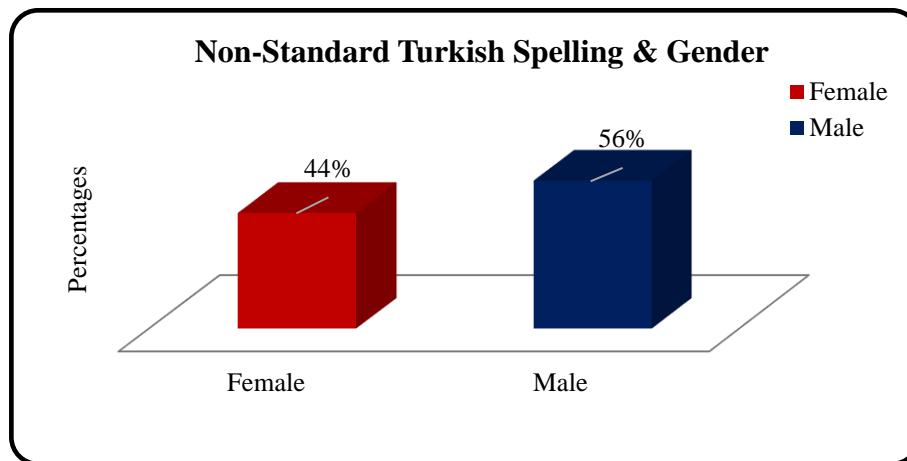
The current study supports previous research conducted by Purcell, Buchanan and Friedrich (2013), which shows that most of the students thought the writing they did outside school on social networking sites was different from the writing they did for school, and they did not consider it as writing. This could be a possible explanation for Turkish high school students to have the highest rate of non-standard spelling. Another possible explanation might be that the young generations do not pay attention to using the correct forms of the Turkish language while communicating online (Malazi, 2013).

#### 4.3.1.2 Non-Standard Turkish Spelling & Gender

Graph 11 shows the occurrence of non-standard spellings with respect to gender. According to previous studies females use more standard language and score better than males in writing tests (Baron, 2008). The results of this research are in line with previous research, as the female participants use more standard language than males: of the non-standard spelling found in the data, 44% was produced by female participants, whereas 56% belongs to male participants.

These findings suggest that native Turkish females use more standard Turkish language than males while communicating online on Twitter. The findings of the study are in line with the

previous study (Ling, 2005) that women use more standard language than men. The reason why women write more correctly than men might be because they want to gain approval, social status or because they are socialized to speak more correctly.



Graph 11: Non-standard Turkish spelling and gender

#### 4.3.1.3 Non-Standard Turkish Spelling: Age & Gender

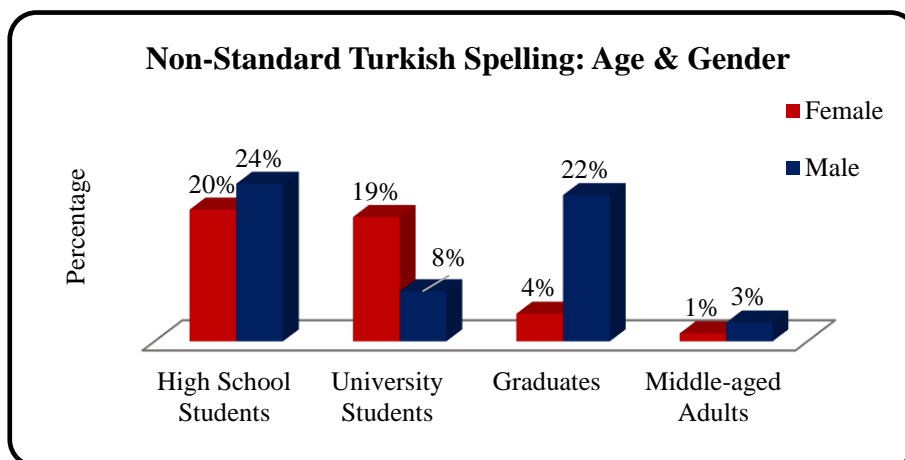
Table 8 presents the numbers and percentage of non-standard spellings with respect to age and gender. If each group is analysed separately, the data reveal that 63% of the posts by high school female participants, 68% of the posts by high school male participants, 70% of the posts by female university students, 66% of the posts by the male university students, 46% of the posts by female graduates and 65% of the posts by male graduates have non-standard Turkish spelling. Middle-aged adults have the least amount of non-standard spelling with 12% of female posts and 13% of male posts. Within each age group, except graduates, there is no significant difference between female and male participants. Only among graduates is there a significant difference between females (46%) and males (65%).

Graph 12 shows the distribution of non-standard spelling within each group. High school male students make up 24% of the non-standard spelling found in the data, followed by male graduates, with 22%. Among high school students, graduates and middle-aged adults, males had more non-standard spelling features than females. Surprisingly, only in university students did female participants have more non-standard spelling than males.

		Female		Male	
Participants	Age	Number	Percentage	Number	Percentage
High School Students	14-18	511	63%	613	68%
University Students	19-24	483	70%	195	66%
Graduates	25-44	107	46%	568	65%
Middle-Aged Adults	45-64	31	12%	73	13%

Table 8: Non-standard Turkish spelling: age and gender

In other age groups, as can be observed from Graph 12, male participants had more non-standard spellings than females. As mentioned in the previous sub-section, analysing the data with respect to gender revealed that female participants use more standard language than men. However, analysing the data with respect to age and gender together reveals that this is not true for university students, as female participants used more non-standard language. Female high school students have the highest amount of non-standard spelling whereas female middle-aged adults have the least. As can be observed, there is a downward trend in female non-standard spelling as the age increases. There is a strong negative correlation (-0.92) between female non-standard spelling and age and a negative correlation (-0.59) between male non-standard spelling and age. Both in female and male participants, as age increases, the amount of non-standard spelling decreases.



Graph 12: Non-standard Turkish spelling: age and gender

### ***4.3.2 Repeating Characters***

Repeating characters to give emphasis to a word is one of the non-standard spelling types. It is a way of expressing emotions while communicating online and writing down the spoken language. The results found in the present research are in agreement with Brody's and Diakopoulos's (2011) findings, which show that characters are repeated in CMC in order to emphasise certain words. Although in Brody and Diakopoulos' research (2011) repeating characters was a common phenomenon and it was seen on average in every sixth tweet. This research has shown that Turkish people in the study also repeat characters for emphasis, but not that often: from the 5,500 tweets analysed, this phenomenon was seen in every 18 tweets. Examples (31), (32) and (33) below illustrate the use of repeating characters for emphasis found in the data:

(31) Herkese mutlu yillaaaar!!

Correct form: Herkese mutlu yıllar!!

Translation: Happy New Year to all!

(32) Senden onceeee senden sonraaaaa

Correct form: Senden önce senden sonra

Translation: Before you after you

(33) Delireceem

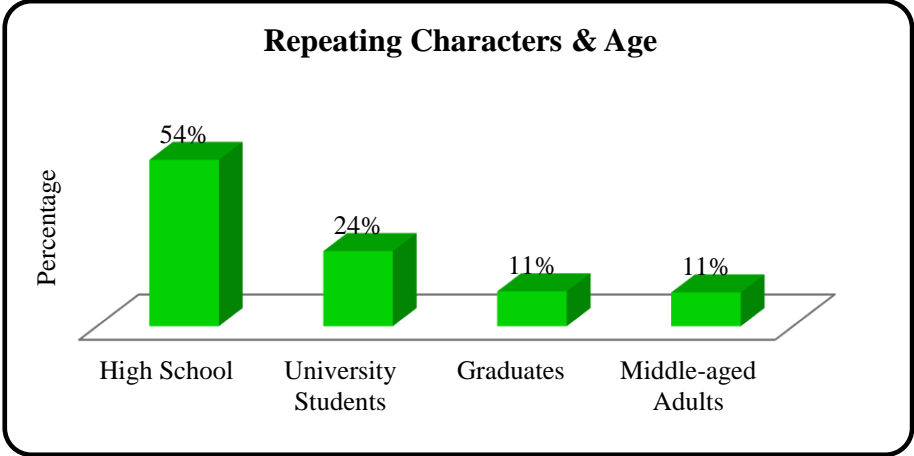
Correct form: Delireceğim

Translation: I will go crazy

#### ***4.3.2.1 Repeating Characters & Age***

In Graph 13, percentages of repeating characters for emphasis for each age group are presented. Repeating characters is a widespread phenomenon among high school teenagers as 8% of their posts have repeating characters. As illustrated in Graph 13, high school students provide 54% of the repeating characters found in the data; university students 24%, followed by graduates and middle-aged adults with 11%. Thus, there is a negative correlation of -0.77 between age and repeating characters: percentages of repeating characters decrease as the age of the

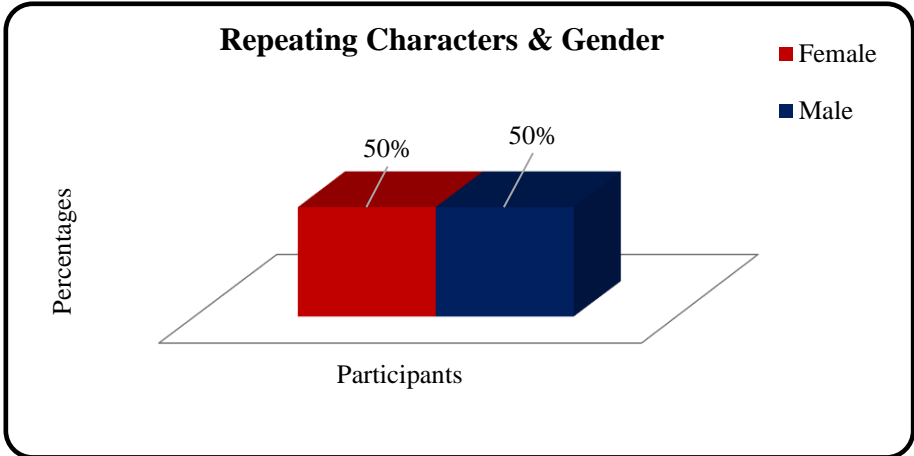
participants increases. These findings suggest that non-standard spelling in CMC is more common among younger users than older users and consistent with Rehm’s (2002) research, which found that younger people use more spoken language features than older people while communicating online.



Graph 13: Repeating characters and age

4.3.2.2 Repeating Characters & Gender

Bar chart 14 shows the percentages of repeating characters for emphasis with respect to gender. Surprisingly, there is no difference between females and males as half of the repeating characters found in the data belong to females and the other half to males. The results indicate that females and males are equally effected by the CMC and repeat the characters for emphasis with the same amount.



Graph 14: Repeating characters and gender

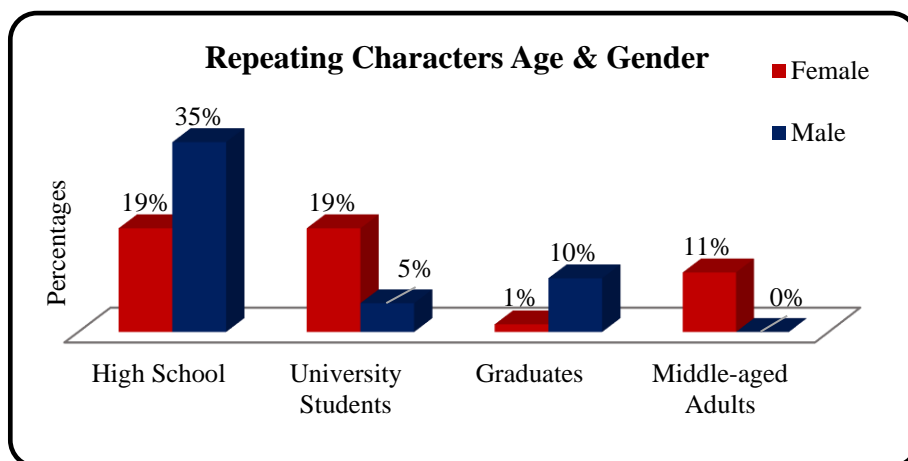
### 4.3.2.3 Repeating Characters: Age & Gender

Table 9 illustrates the numbers and the percentages of repeating characters found in the data when age and gender are considered in combination. When each group is analysed separately, the data reveal that 7% of the posts by female high school students have repeating characters, against 11% of the posts by male high school students. As can be seen from the table, this phenomenon is found the least among graduates, as 2% of the posts of these female participants and 3% of the posts of these male participants present it. On the other hand, because the total number of female middle-aged adults' posts are low (31 tweets), percentages of repeating characters (12%) are higher than other groups.

Participants	Age	Female		Male	
		Number	Percentage	Number	Percentage
High School Students	14-18	54	7%	99	11%
University Students	19-24	54	8%	15	5%
Graduates	25-44	4	2%	28	3%
Middle-aged Adults	45-64	31	12%	0	0%

Table 9: Repeating characters: age and gender

Graph 15 shows the percentages of repeating characters for each group. As can be seen, male high school students repeat characters (35%) more than any other group, whereas male middle-aged adults never repeat characters to make emphasis. 19% of the repeated characters found in the data belong to female high school students, 19% to female university students, 1% to female graduates and 11% to female middle-aged adults displaying a weak negative correlation (-0.54) in females between repeating characters and age. Male high school students provide 35% of the repeated characters, male university students 5% and male graduates 10%. Thus, there is a negative correlation (-0.71) in males between repeating characters and age. In other words, both for female and male participants, as age increases, the occurrence of repeating characters for emphasis decreases, suggesting that non-standard spelling in CMC is more common among younger users than older users.



Graph 15: Repeating characters: age and gender

#### 4.3.3 Turkish Online Abbreviations

In the previous sections, non-standard Turkish spelling and repeating characters for emphasis have been analysed with respect to age and gender. In this section, Turkish online abbreviations will be considered. In this research, abbreviations, lexical shortenings, clippings, and acronyms found on Twitter analysed as online abbreviations. In the gathered data, 47 different online abbreviations were found. It was also found that Turkish abbreviations are widely used on Twitter. In Table 10, the list of Turkish abbreviations found in the data are presented. As can be observed, participants did not use some of the abbreviations in the same way. In the abbreviations column, different forms of abbreviations are illustrated.

Words	Abbreviations	Translation
Amerika Birleşik Devletleri	ABD	United States of America
Adalet ve Kalkınma Partisi	AKP	Justice and Development Party
Amına Koyayım	Amk, Aq, Ak, Amq	Fuck
Alışveriş merkezi	Avm	Shopping Centre
Belediye Başkanı	Bld.Bşk. Bel. Baş.	Mayor
Bir siktir git	Bsg	Go fuck yourself
Cumhurbaşkanı	C.Başkanı, C. Bşk,	President
Cadde	Cad	Street
Cumhuriyet Halk Partisi	CHP	Republican People's Party
Canım	Cnm	My dear
Dakika	Dak., Dk	Minute
Doktor	Dr.	Doctor
Eğitim	Eğt.	Education



Eyvallah	Eyv	Okay
Güneydoğu Anadolu Projesi	GAP	The South-eastern Anatolia Project
Genel Başkan	Gen.Baş. Gn.Bşk.	General Vice President
Görüşürüz	Grşz, By, Bb	See you
Galatasaray	GS	Galatasaray Sports Club
Geri takip	Gt	Follow back
Halkların Demokratik Partisi	HDP	Peoples' Democratic Party
Hâkimler ve Savcılar Yüksek Kurulu	HSYK	Supreme Board of Judges and Prosecutors
İnşallah	İnş	God Willing
İstanbul	İst	Istanbul
Kadın Kolları Merkez Yürütme Kurulu	KKMYK	Central Executive Committee of Women's branch
Kanka	Knk, Qnq	Dude
Leyla ile Mecnun	Lm	Leyla and Mecnun (Turkish series)
Müdür	Md.	Manager
Mühendis	Müh.	Engineer
Millî Eğitim Bakanlığı	MEB	Ministry of National Education
Milli Güvenlik Konseyi	MGK	National Security Council
Orospu Çocuğu	Oc, Oç	Son of a bitch
Orta Doğu Teknik Üniversitesi	ODTU	Middle East Technical University
Öğretmen	Öğrt, Öğr	Teacher
Ortalama	Ort.	Average
Kürdistan İşçi Partisi	PKK	Kurdistan Workers' Party
Profesör Doktor	Prof. Dr.	Professor Doctor
Posta ve Telgraf Teşkilatı	PTT	Post and telegraph directorate
Türkiye Büyük Millet Meclisi	TBMM	Grand National Assembly of Turkey
Türkiye Cumhuriyeti	TC	Republic of Turkey
Temel eğitimden ortaöğretime geçiş	TEOG	Transition from primary to secondary education
Türk Lirası	TL	Turkish Lira
Tamam	Tm, Tamm,	Ok
Türkiye Radyo Televizyon Kurumu	TRT	Turkish Radio and Television Corporation
Teşekkürler	Tşk , Tsk, Tşklr	Thank you
Televizyon	TV	Television
Ve benzeri	Vb	Et cetera
Yükseköğretime Geçiş Sınavı	YGS	Higher Education Examination

Table 10: List of Turkish online abbreviations on Twitter

As table 10 shows, most of the abbreviations such as TBMM, CHP, TC, and so forth are related to politics, which make up 28% of the abbreviations found in the data. 17% of the abbreviations

such as TEOG, YGS, MEB, and so forth are related to education, followed by abbreviations of swear words like amk, bsg, and so forth (6%). Examples (34), (35), (36) and (37) illustrate some of the Turkish abbreviations found in the data:

(34) Babamdan sabahları dark vader gibi ses çıkıyo *amk* göremeyince korkuyorum 😊😊

Translation: There is a sound coming from my father in the mornings like Darth Vader that I am scared when I don't see him *fuck*

(35) Asansörün ışığı makes me high *aq*

Translation: The light of the elevator makes me high *fuck*

(36) ömer *bsg* bro

Translation: Ömer *go fuck yourself* brother

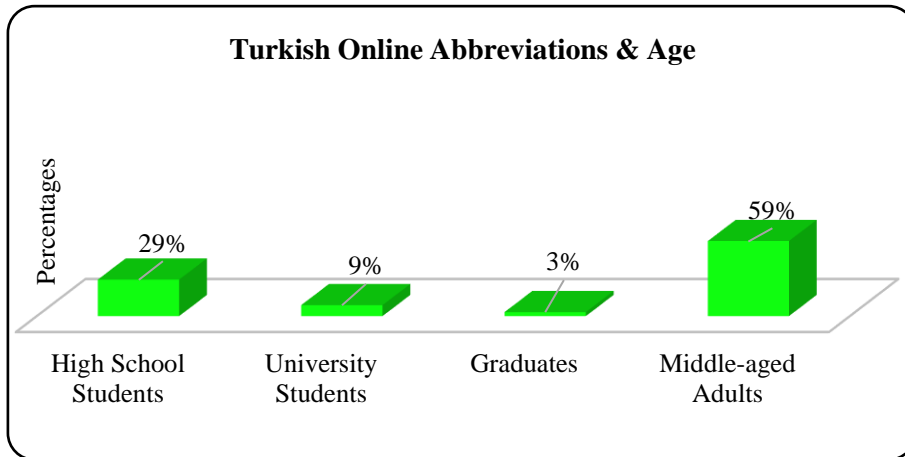
(37) Bugün Saat 14.30'da *TBMM*'de basın toplantısı düzenleyeceğim.

Translation: Today I will hold a press conference at 14.30 in the *Grand National Assembly of Turkey*.

In the following sections, Turkish online abbreviations will be analysed with respect to age and gender.

#### 4.3.3.1 Turkish Online Abbreviations & Age

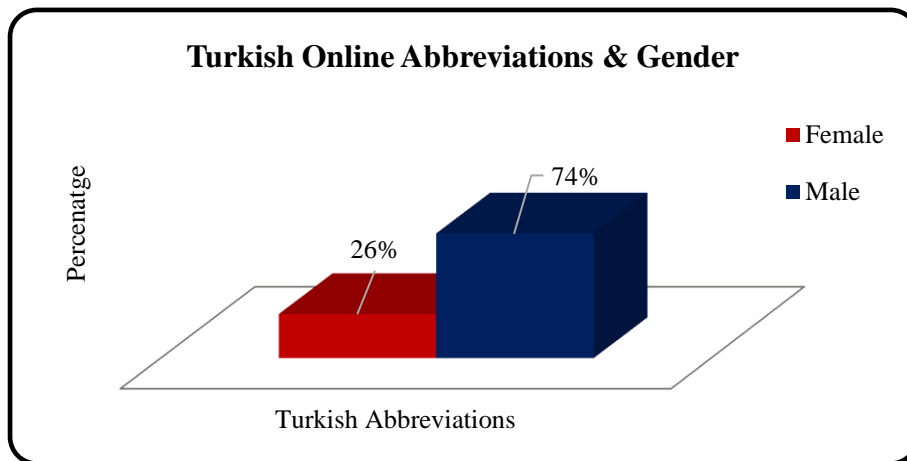
In CMC, abbreviations are used to save energy and space. In Graph 16, Turkish online abbreviations with respect to age can be seen. It was found that middle-aged adults used Turkish abbreviations more than any other age group (59%), followed by high school students (29%) and university students (9%). Graduates used Turkish abbreviations the least in their posts (3%). Thus, there is a weak positive correlation of 0.63 between abbreviations and age: as the participants' age increases, the percentages of Turkish abbreviations increase.



Graph 16: Turkish online abbreviations and age

#### 4.3.3.2 Turkish Online Abbreviations & Gender

Graph 17 illustrates the percentages of Turkish abbreviations with respect to gender. It can be seen that 74% of the online abbreviations found in the data belong to male participants, whereas 26% come from female participants.

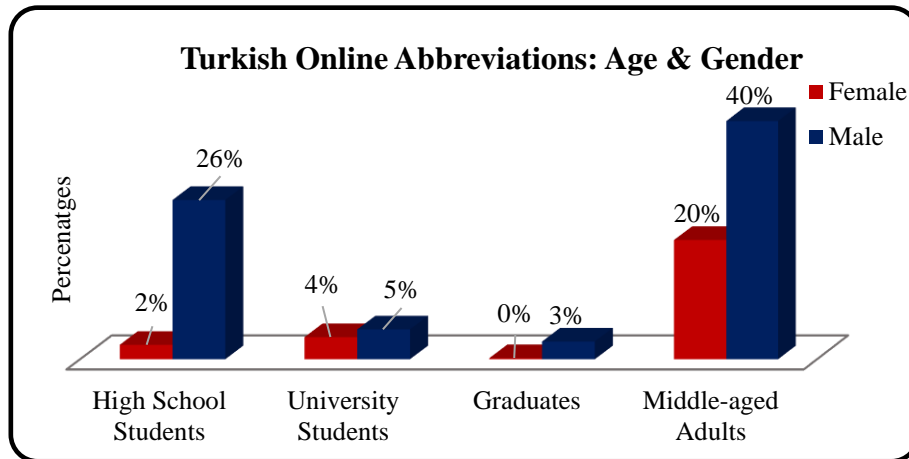


Graph 17: Turkish online abbreviations and gender

These findings are in contradiction with previous results reported by Ling (2005) that females used significantly more abbreviations than males. This research has shown that Turkish male participants use significantly more abbreviations than female participants. Thus, further research should be undertaken.

#### 4.3.3.3 Turkish Online Abbreviations: Age & Gender

Graph 18 presents the percentages of Turkish online abbreviations with respect to age and gender. In every age group, male participants use more Turkish abbreviations than females. Besides, among high school students and middle-age adults, there are significant differences between female and male participants but among university students and graduates the gender gap is less noticeable.



Graph 18: Turkish online abbreviations: age and gender

Among female participants there is a positive correlation of 0.82 between abbreviations and age, while there is a weak positive correlation (0.49) among males. As there is a quite strong correlation among females (0.82), it is possible to say that as the age of female participants increases, the number of abbreviations increases.

In Table 11, a list of abbreviations used by each group is presented. Translations of these abbreviations are presented in Table 10 in section 4.3.3. The Turkish abbreviation “amk” (fuck), which has different forms like “ak”, “amq” and “aq”, was used extensively by male high school students. Actually, 79% of the abbreviations of the swear words found in the data belong to male high school students. It was seen that female and male university students and male graduates also use abbreviations of swear words in their posts. As a whole, the findings of the study have shown that abbreviations of swear words are more common among younger teenagers. Female graduates used only one Turkish abbreviation, ODTU which stands for “Middle East Technical University”. Female middle-aged adults (20%) and male middle aged-

adults (40%) mainly used abbreviations related to politics and abbreviations of political party names such as AKP, CHP or HDP were used extensively.

Participants	Age	Female	Male
High School Students	14-18	Amk, Ndn, Cnm, Fav, Ygs, Eyv, TC	ABD, Aq, Amq, Amk, Bb, Bsg, Fav, Oc, Knk, LM, Qnq, Tm, Tşk
University Students	19-24	Aq, Dk, Fav, İnş, Oç, TV, Trt, Ptt	Amk, AKP, Aq, Gs,
Graduates	25-44	ODTU	Ak, Amk, EĞT, ort, Öğrt, öğr, Müh, tşkkır, TV, vb
Middle-aged Adults	45-64	AKP, Avm, Bel. Baş. Bld.bşk., bsk., C.Başkanı, Cad, CHP, HSYK, Dak., Dr., Gen.Baş.Yar. Mv., HDP, KKMYK, MEB, MGK, PKK, Prof. Dr., TBMM, Trt, TSK, TV,	ABD, AKP, CHP, GAP, Gn.Bşk., GT, Hsyk, Ist, Md., MGK, PKK, TBMM, TEOG, TL, TRT, TV, Vb

Table 11: List of Turkish online abbreviations: age and gender

#### 4.3.4 Summary: Turkish Netspeak

In section 4.3 Turkish Netspeak – non-standard Turkish spelling, repeating characters and Turkish online abbreviations – has been presented with respect to age and gender. It should be noted that there is no previous research on the use of non-standard Turkish spelling, repeating characters and Turkish online abbreviations with respect to age and gender. The global results of Netspeak with respect to age are summarized in the Table 12. As can be observed from the table, non-standard spelling and repeating characters reach a peak with high school students which might indicate the generation gap.

Regarding the non-standard spelling, this study has shown that non-standard spelling in CMC is more common among younger users than older users and non-standard spelling rates decrease

as the age of the participants increases from high school to middle-aged adults. As can be observed from the Table 12, non-standard spelling rates reaches a peak with high school students (44%), followed by university students and graduates (26%) and finally reaches the lowest rate with middle-aged adults (4%). In other words, middle-aged adults use more standard language than any other age groups.

<b>Netspeak Global Results &amp; Age</b>			
<b>Participants</b>	<b>Non-standard Spelling</b>	<b>Repeating Characters</b>	<b>Turkish Abbreviations Online</b>
High School Students	44%	54%	29%
University Students	26%	24%	9%
Graduates	26%	11%	3%
Middle-aged Adults	4%	11%	59%

Table 12: Netspeak global results: age

Secondly, regarding repeating characters for emphasis, the findings of this study suggest that the younger generations – high school and university students – use repeating characters more often than the older generations. Besides, the correlations found between age and repeating characters indicate that, as age increases, there is a lower tendency of repeating characters with this expressive function. Finally, regarding Turkish online abbreviations, the findings suggest that middle-aged adults use Turkish abbreviations more than any other age group (59%) and they are mainly related to politics. Abbreviations of political party names such as AKP, CHP or HDP are used extensively by middle-aged adults, whereas abbreviations or swear words such as amk, bsg are used extensively by the younger generations especially by the high school students.

Secondly, Turkish Netspeak has been analysed with respect to gender and the global results of Netspeak with respect to gender are summarized in the Table 13. It can be observed from the table that male participants (56%) use more non-standard spelling than females. A reasonable explanation for females to write with fewer spelling mistakes might be because they want to gain approval and social status or because they are socialized to speak more correctly. However, interestingly, there is no difference in repeating characters between females and males. Both among females and males, there is a tendency of repeating characters less as the age of the

participants increases. Regarding the Turkish online abbreviations, the findings suggest that males (74%) use significantly more Turkish abbreviations than females (26%). Furthermore, the data suggest that male participants use Turkish Netspeak more than females. Although, there is no difference in repeating characters between female and male participants, males use non-standard spelling and abbreviation more than female participants.

<b>Netspeak Global Results &amp; Gender</b>			
<b>Participants</b>	<b>Non-standard Spelling</b>	<b>Repeating Characters</b>	<b>Turkish Abbreviations Online</b>
Male	56%	50%	74%
Female	40%	50%	26%

Table 13: Netspeak global results: gender

Finally, Turkish Netspeak has been analysed with respect to age and gender together and the global results of Netspeak are summarized in the Table 14. As can be seen from the table, male high school students (24%) have the highest rate of non-standard spelling in their posts, whereas female middle-aged adults have the lowest (1%). Besides, both among female and male participants, as age increases, the amount of non-standard spelling decreases.

<b>Netspeak Global Results Age &amp; Gender</b>			
<b>Participants</b>	<b>Non-standard Spelling</b>	<b>Repeating Characters</b>	<b>Turkish Abbreviations Online</b>
Female High School Students	20%	19%	2%
Male High School Students	24%	35%	26%
Female University Students	19%	19%	4%
Male University Students	8%	5%	5%
Female Graduates	4%	1%	0%
Male Graduates	22%	10%	3%
Female Middle-aged Adults	1%	11%	20%
Male Middle-aged Adults	3%	0%	40%

Table 14: Netspeak global results: age and gender

Similarly, repeating characters for emphasis reach a peak with male high school students (35%) and both for female and male participants, as age increases, the occurrence of repeating characters for emphasis decreases. These results also suggest that non-standard spelling in CMC is more common among younger users than older users. Regarding Turkish abbreviations online, the data reveal that male middle-aged adults use abbreviations significantly more than other age and gender groups. Moreover, among high school students and middle-age adults there are significant differences between female and male participants. However, among university students and graduates the gender gap is less noticeable. Although there is no significant correlation among males, among females as the age of female participants increases, the number of abbreviations increases.

In conclusion, this study shows that middle-aged adults in this study use more standard language than any other age group and Turkish Netspeak is more common among younger users than elder ones. This suggests that, there is a generation gap in the use of Turkish Netspeak and using Turkish Netspeak to show online glocal identity might be a fashion among younger generations.

#### **4.4 Language Contact Phenomena**

Close interaction between speakers of different languages leads to a transfer of linguistic features from one language to another (Oxford Dictionary, 2017a). In this section, posts in English and Turkish will be analysed. First, English abbreviations found in the data will be presented with respect to age and gender, followed by lexical borrowing – lexical items taken from English language –, and code-switching – phrases taken from English language – will be analysed.

##### **4.4.1. English Online Abbreviations**

The reason for using abbreviation in online communication is to save energy and space but it might also be used to show group membership. In this research, English abbreviations were



used in 43 posts and 26 different abbreviations were found in the data. In Table 15, the list of English abbreviations can be seen.

Abbreviation	Word
App	Application
Bf4	Battlefield 4
Bf	Best Friend
Bff	Best Friends Forever
Bro	Brother
Btw	By the way
CEO	Chief Executive Officer
DM	Direct message
ELT	Emergency Locator Transmitters
XL	Extra-large
Fav	Favourite
Fps	First-person shooter
FM	Frequency Modulation
Lol	Laughing out loud
Lgbt	Lesbian, gay, bisexual, and transgender
Max	Maximum
Msn	Micro Soft Network
Mp3	Moving Picture Experts Group Audio Layer 3
PC	Personal computer
Pls	Please
PM	Private Message
QR Code	Quick Response Code
RT	Retweet
SEO	Search engine optimization
SMS	Short Message Service
Ssd	Solid-state drive
Twd	The Walking Dead
Wtf	What the fuck

Table 15: English online abbreviations

Half of the English abbreviations found in the data are technology-, computing- and Twitter-related abbreviations such as App, RT, Mp3, PC, and so forth. Below, examples (38) – (40) of English abbreviations used by Turkish people while communicating online can be seen:

(38) *EQ'su* düşük bir yönetici, iletişim, motivasyon, öfke kontrolü, çatışmaları yönetme konularında yetersiz kalacaktır.

Correct form: *Duygusal zekası* düşük bir yönetici, iletişim, motivasyon, öfke kontrolü, çatışmaları yönetme konularında yetersiz kalacaktır.

Translation: Managers with low EQ, will be inadequate with communication, motivation, anger management and conflict management issues.

(39) Ben ve *QR* kodlarım derse hazırız

Correct form: Ben ve *QR* kodlarım derse hazırız.

Translation: I and my *QR* codes are ready for the class

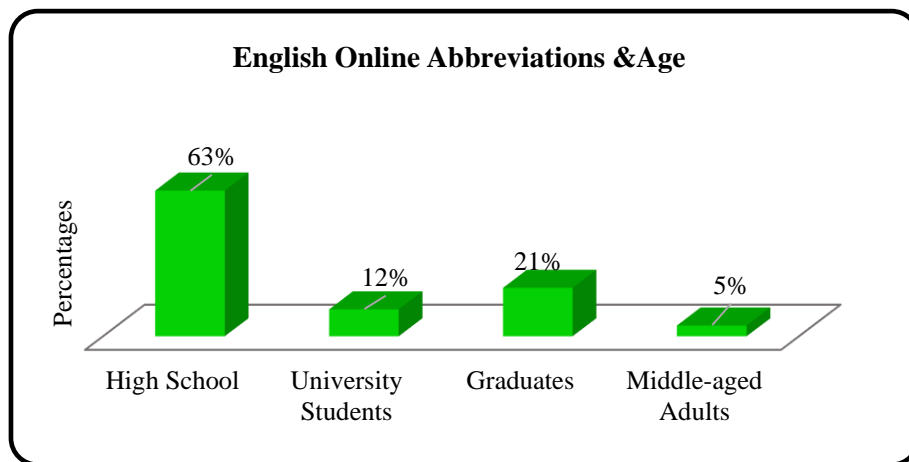
(40) Şu *app* olmasa blockladığımı bile farketmicem

Correct form: Şu *uygulama* olmasa engellediğimi bile farketmeyeceğim

Translation: I will not even realise that I was blocked for this *application*

#### 4.4.1.1 English Online Abbreviations & Age

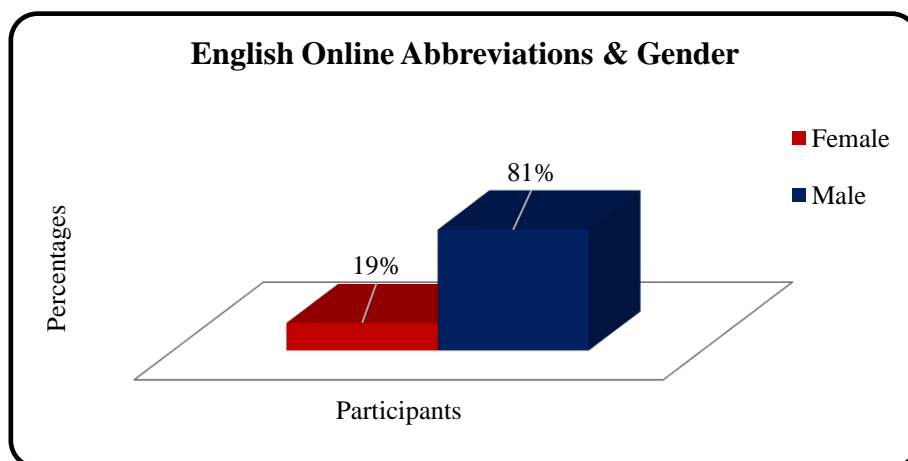
The data in graph 19 indicate the percentages of abbreviations with respect to age. As can be seen from the graph, each age group used English abbreviations while communicating online. The data indicate that high school students use abbreviations more than any other age group: 63% of the abbreviations in the data belong to high school students whereas 5% belong to middle-aged adults. University students make up 12% of the abbreviations found in the data whereas graduates make up 21%. Thus, there is a negative correlation (-0.69) between English abbreviations and age: as the participants' age increases, the percentages of English abbreviations decrease.



Graph 19: English online abbreviations and age

#### 4.4.1.2 English Online Abbreviations & Gender

In Graph 20, percentages of abbreviation with respect to gender are presented. There is a significant difference between female and male participants. Thus, males make up 81% of the abbreviations found in the data whereas females 19%.

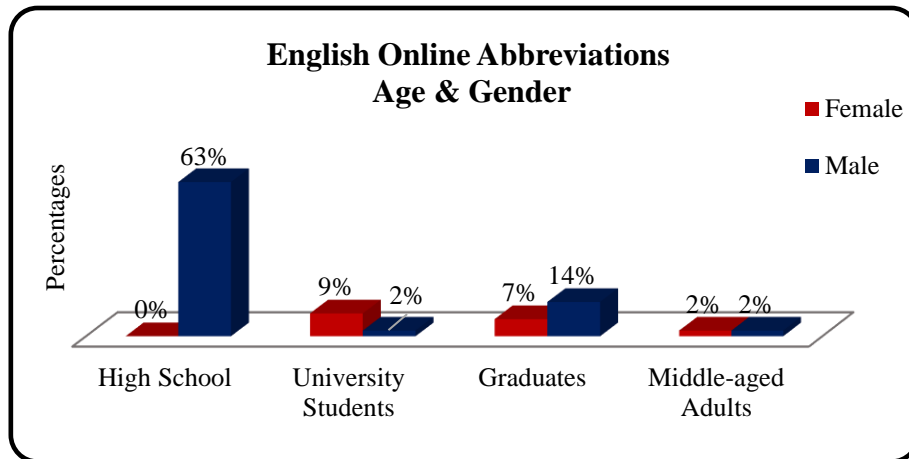


Graph 20: English online abbreviations and gender

The results of this study conflicts with the previous research; according to Ling (2005) females use more abbreviations than males in their SMS. However, this study shows that Turkish male participants use significantly more abbreviations than female participants.

#### 4.4.1.3 English Online Abbreviations: Age & Gender

In Graph 21, percentages of English online abbreviation with respect to age and gender are illustrated. As can be seen from the graph, among high school students, male participants make up 63% of the abbreviations found in the data, whereas female high school students did not use any. Among university students, females use more abbreviations than males where among graduates, males use more abbreviations than females. Although, there is no correlation (-0.09) among females, between abbreviations and age, there is and a negative correlation (-0.61) among males. Thus, these findings indicate that among males, as the age of the participants increases, the percentages of English abbreviations used in tweets decrease.



Graph 21: English online abbreviations: age and gender

In Table 16, the list of the abbreviations found in the data for each age and gender group can be seen. Most of the abbreviations used by male high school students such as Fps, Mp3, Fav, SMS, Bf4, Ssd, are related to technology, games and Twitter.

Participants	Age	Female	Male
High School Students	14-18	-	Bf4, Bro, Btw, Dm, Fav, Fps, Lgbt, Lol, Max, Mp3, PC, SMS, Ssd, Twd, Wtf, PM, fav
University Students	19-24	XL, BF, CEO, Elt, Msn, Pls, RT	Ps3
Graduates	25-44	QR, App, Sms, Bff, Fm	CEO, PC, Sms, App, Seo
Middle-aged Adults	45-64	EQ	RT

Table 16: List of English abbreviations: age and gender

When we look at the middle-aged adults we can see that female middle-aged adults and male middle-aged adults use the same amount of abbreviations. The only abbreviation used by female middle-aged adults was EQ which stands for Emotional Intelligence whereas male middle-aged adults only used RT which stands for retweet.

#### 4.4.2 Lexical Borrowing

In this research, lexical borrowing is defined as single words taken from a donor language and used in the recipient language. In this study, words borrowed from English and used in Turkish tweets have been analysed and found that 3,4% of the Tweets have lexical borrowings. The following examples (41) and (42) illustrate lexical borrowing from English:

(41) *Puzzle* krizimiz tuttuysa demek ki

Correct form: *Yapboz* krizimiz tuttuysa demek ki

Translation: It means we had *puzzle* crisis

(42) sanırım 21 kişiye iyi geceler diye *mention* attım .s.s.s

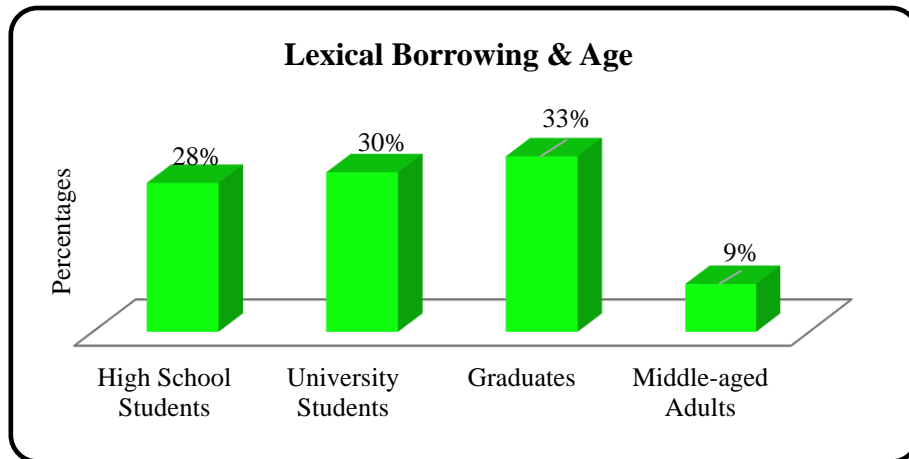
Correct form: Sanırım 21 kişiyi anarak iyi geceler diye mesaj attım

Translation: I guess I sent a good night message *mentioning* 21 people

In the following subsections, lexical borrowing with respect to age and gender will be presented.

##### 4.4.2.1 Lexical Borrowing & Age

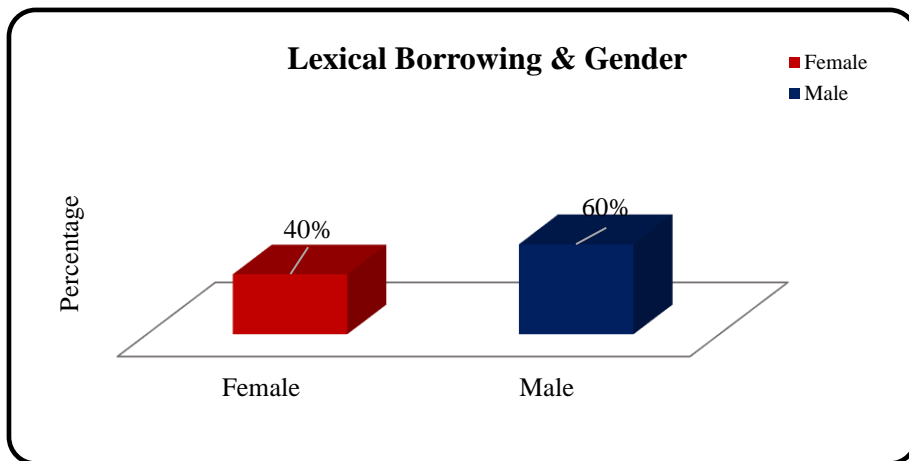
Graph 22 illustrates lexical borrowing with respect to age. The graph shows that there is a gradual increase in lexical borrowing amounts from high school students to graduates. High school students make up 28% of all the lexical borrowings found in the data, university students 30% and graduates 33%. However, lexical borrowing amounts decrease dramatically with middle-aged adults to 9%. These results indicate that middle-aged adults borrow English words less than other age groups whereas graduates borrow English words more than other age groups. Moreover, there is a negative correlation (-0.79) between age and lexical borrowing: as the age of the participants increases, the amount of lexical borrowing decreases.



Graph 22: Lexical borrowing and age

#### 4.4.2.2 Lexical Borrowing & Gender

Graph 23 presents the percentages of lexical borrowing with respect to gender. Females provide 40% of the lexical borrowings found in the data whereas males 60%. As can be observed, male participants borrow lexical items significantly more than female participants.

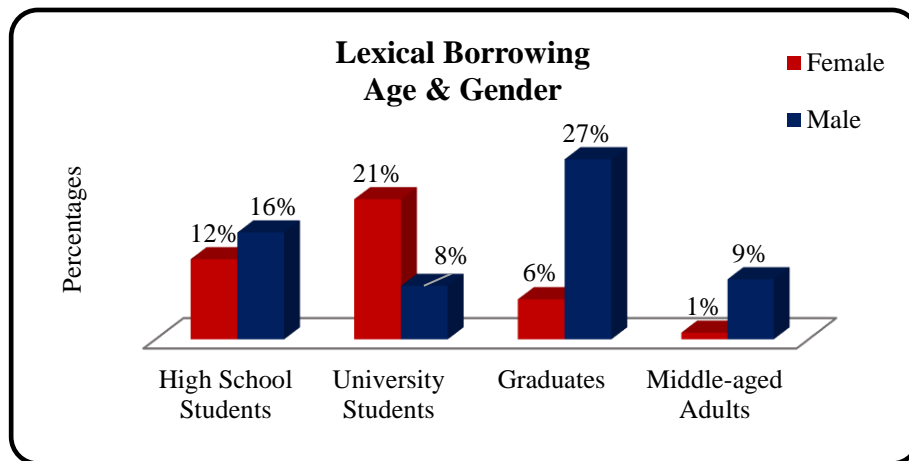


Graph 23: Lexical borrowing and gender

#### 4.4.2.3 Lexical Borrowing: Age & Gender

In Graph 24, percentages of lexical borrowing with respect to age and gender are illustrated. Among high school students, graduates and middle-aged adults, males borrowed more lexical

items than females whereas among university students, females borrowed more lexical items. Analysing the data with respect to gender revealed that males borrow more lexical items than females but when the data is analysed with respect to two variables age and gender together, we can see that this was not true for university students.

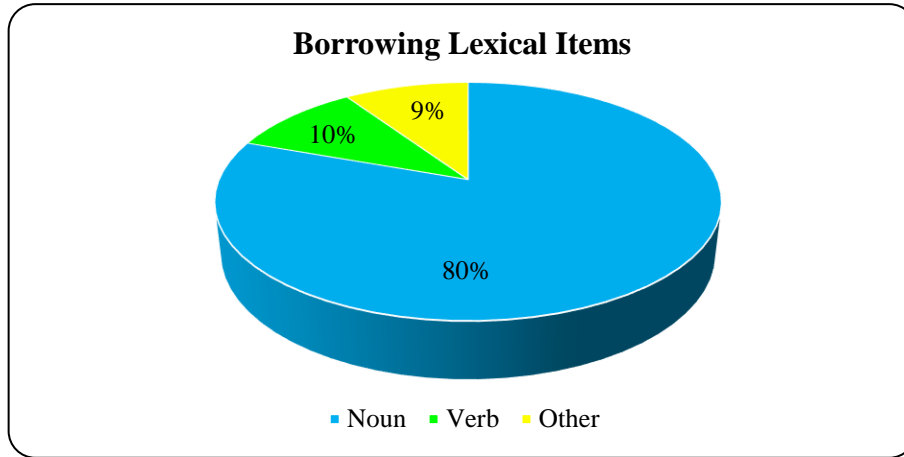


Graph 24: Lexical borrowing: age and gender

Moreover, among females there is a negative correlation (-0.82) between age and lexical borrowing whereas among males there is no significant correlation. In other words, among females as the age of the participants increases, the amount of lexical borrowing decreases. In the following sections borrowed lexical items (nouns, verbs and others) will be analysed with respect to age and gender.

#### ***4.4.3 Borrowing Lexical Items***

In this section, borrowed lexical items found in the data will be analysed in respect of age and gender. In Graph 25, percentages of borrowed nouns, verbs and other items (adjectives, adverbs, and so forth) taken from the English language and used in Turkish posts can be seen. Turkish people in the study borrowed nouns (80%), more than verbs (10%) and other items (9%). Borrowing nouns from another language is easier than borrowing verbs or any other items because nouns are grammatically free characters. Thus, results of this study are in line with previous studies: within the borrowed items, nouns are borrowed more frequently than any other item (Tastan, 2012; Poplack, Sankoff, & Miller, 1988, p. 62; Field, 2002; Rendon, 2008).



Graph 25: Borrowing lexical items

Turkish native people's frequency of borrowing items from English to Turkish is Nouns> Verbs> Others. Example (43) below illustrates the lexical borrowing from English to Turkish found in the data:

(43) Hocaya *deadline*'i uzatması için yalvarırken ben

Correct form: Hocaya teslim zamanını uzatması için yalvarırken ben

Translation: Me while begging the teacher to extend the deadline

#### 4.4.3.1 Borrowing Lexical Items & Age

Table 17 illustrates the numbers and the percentages of borrowed lexical items for each age group. In all age groups, nouns are borrowed more than verbs and other items. Among high school students, 80% of the borrowed items are nouns, 2% are verbs and 18% are other items whereas among university students 85% are nouns, 11% are verbs and 4% are other items.



		Noun		Verb		Other	
Participants	Age	Number	Percentage	Number	Percentage	Number	Percentage
High School Students	14-18	40	80%	1	2%	9	18%
University Students	19-24	45	85%	6	11%	2	4%
Graduates	25-44	47	80%	7	12%	5	8%
Middle-aged Adults	45-64	12	71%	4	24%	1	6%

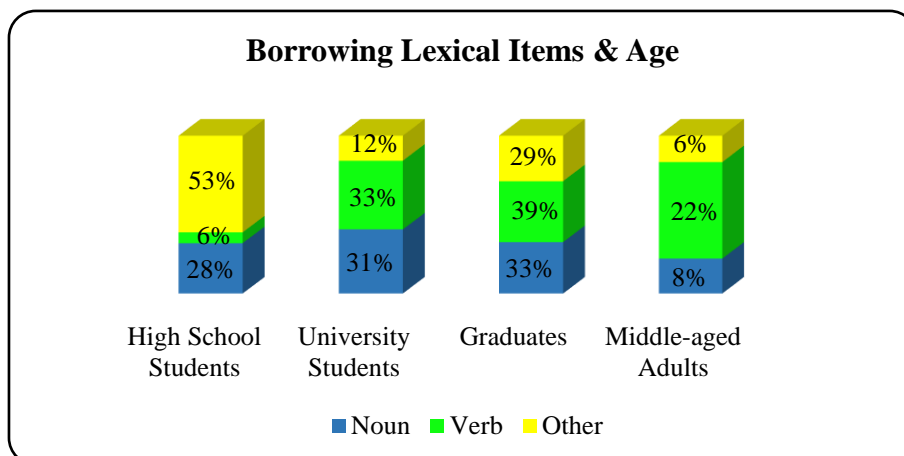
Table 17: Borrowing lexical items and age

Table 18 presents the frequency of borrowing lexical items for each age group. The frequency of borrowing items from English to Turkish for university students, graduates and middle-aged adults is Nouns> Verbs> Others. However, this frequency changes with high school students to Nouns> Others> Verbs which might indicate the low English level of the high school students, since verbs are not easily borrowed from one language to another (Myers-Scotton, 2006).

Frequency of Borrowing Lexical Items	Age Groups
Nouns> Verbs> Others	University Students Graduates Middle-aged Adults
Nouns> Others> Verbs	High School Students

Table 18: Frequency of borrowing lexical items and age

In Graph 26 percentages of borrowed lexical items with respect to age are illustrated. As can be observed from the graph, high school students provide 28% of the nouns found in the data, university students 31%, graduates 33% and middle-aged adults 8%. Moreover, high school students make up 6% of the verbs found in the data, university students 33%, graduates 39% and middle-aged adults 22%. Other items are borrowed mainly by high school students with 53%, followed by graduates with 29%, university students with 12%, and finally, middle-aged adults with 6%.



Graph 26: Borrowing lexical items and age

Besides, there is a negative correlation (-0.80) between borrowing nouns and age, a weak, non-significant positive correlation (0.25) between borrowing verbs and age, and a negative correlation (-0.67) between borrowing other items and age. In other words, the percentages of borrowing nouns and other items decrease as the age of the participants increases.

#### 4.4.3.2 Borrowing Lexical Items & Gender

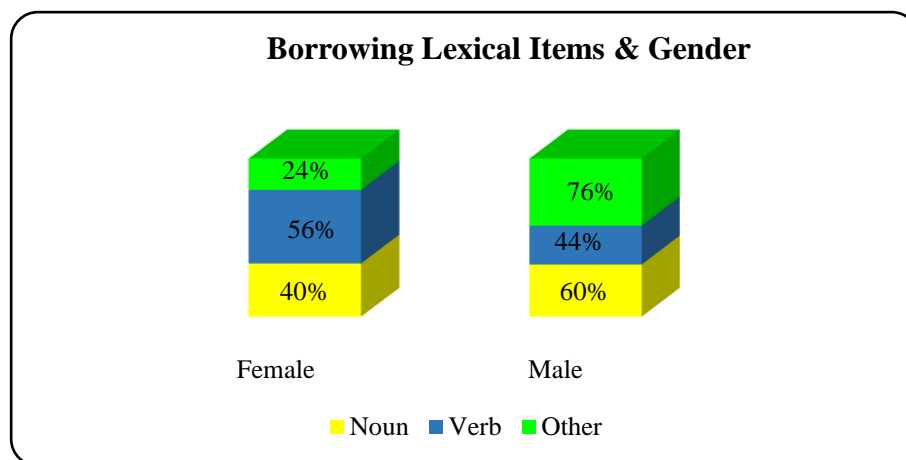
Table 19 presents the percentages of borrowed lexical items with respect to gender. As can be observed from the table, both females and males borrow more nouns than any other lexical item. Thus, the frequency of borrowing items for female participants is Nouns > Verbs > Others and for male participants is Nouns > Others > Verbs.

Participants	Noun	Verb	Others
Females	81%	14%	6%
Males	80%	7%	12%

Table 19: Borrowing lexical items and gender

Graph 27 presents the percentages of borrowed lexical items with respect to gender. 40% of the borrowed nouns found in the data belong to female participants whereas 60% belong to male

participants. Likewise, 56% of the verbs belong to females, 44% of the verbs to males, and 24% of the other items to females and 76% of the other items to males.



Graph 27: Borrowing lexical items and gender

In other words, female participants borrowed more verbs than male participants whereas male participants borrowed more nouns and other items than female participants. It can be clearly seen that females borrowed significantly more verbs from English than males. A possible explanation for this might be that the English level of female participants is higher than male participants as borrowing verbs is not as easy as borrowing nouns and requires a higher level of English. These findings are consistent with the Education First English Proficiency Index report (EF English Proficiency Index, 2017) on the level of English in Turkey as this report showed that English level of women in Turkey is higher than men.

#### 4.4.3.3 Borrowing Lexical Items: Age & Gender

In Table 20, percentages of borrowed items for each group are presented. 86% of the borrowed items by high school female students are nouns, 5% are verbs and 9% are other items such as adjectives, adverbs, and so forth whereas 75% of the items borrowed by male high school students are nouns, and 25% are other items. Moreover, male university students, female graduates and middle-aged adults did not borrow any other items from English, whereas female middle-aged adults only borrowed nouns.

		Female			Male		
Participants	Age	Noun	Verb	Others	Noun	Verb	Others
High School	14-18	86%	5%	9%	75%	0%	25%
University Students	19-24	82%	13%	5%	93%	7%	0%
Graduates	25-44	64%	36%	0%	83%	6%	10%
Middle-aged Adults	45-64	100%	0%	0%	69%	25%	6%

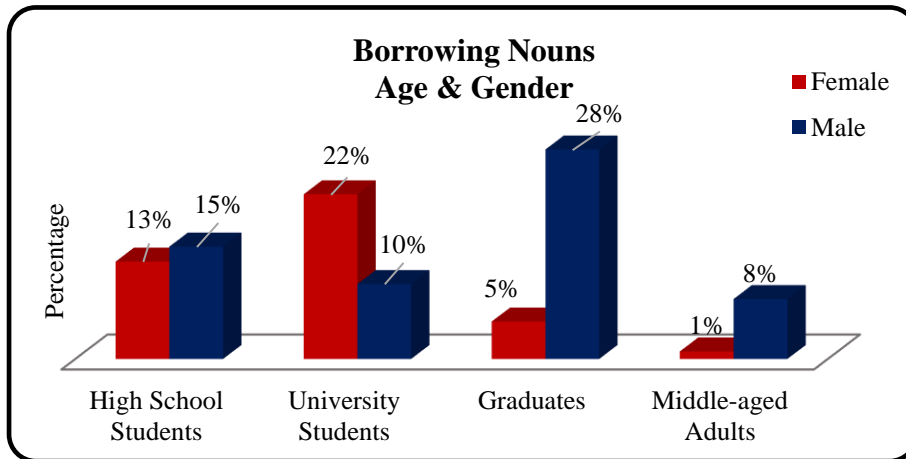
Table 20: Borrowing lexical items: age and gender

In Table 21, the frequency of borrowing lexical items from English to Turkish with respect to age and gender can be seen. University students, female graduates and male middle-aged adults borrowed more verbs than other items, whereas high school students and male graduates borrowed more other items than verbs.

Lexical Borrowing Frequency	Participants
Nouns > Verbs > Others	Female University Students Male University Students Female Graduates Male Middle-aged Adults
Nouns > Others > Verbs	Female High School Students Male High School Students Male Graduates
Nouns > Verbs = Others = 0	Female Middle-aged Adults

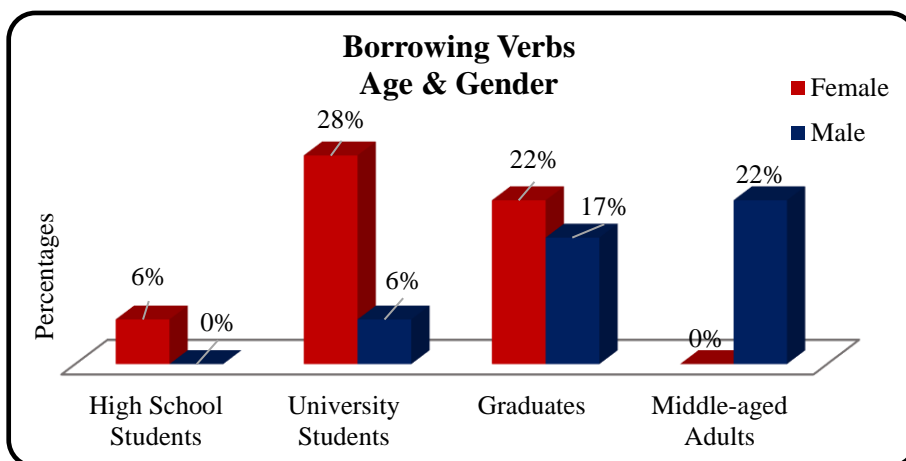
Table 21: Frequency of borrowing lexical items: age and gender

In Graph 28, percentages of borrowing nouns with respect to age and gender are presented. The practice of borrowing nouns reaches a peak with male graduates' tweet providing 28% of the nouns found in the data and reaches the lowest value with female middle-age adults (1%). Thus, there is a negative correlation (-0.81) among females between borrowing nouns and age whereas there is a weak, non-significant negative correlation (-0.15) among males. As there is quite a strong correlation, it is possible to say that as female participants' age increases, the number of nouns borrowed by them decreases.



Graph 28: Borrowing nouns: age and gender

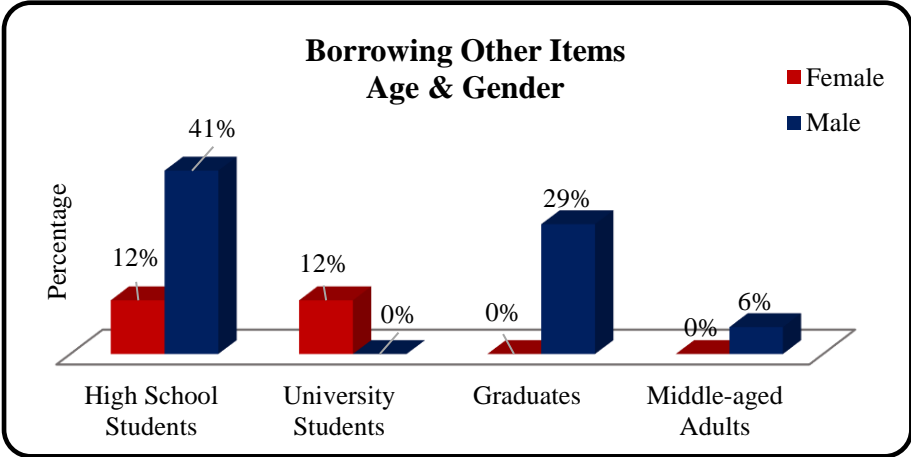
In Graph 29, percentages of borrowing verbs with respect to age and gender can be seen. The results indicate that female high school students, university students and graduates borrow verbs more than male participants. However, this changes with middle-aged adults where male adults borrow more verbs than females. In other words, female participants aged between 14 and 44 borrow more verbs than males. Thus, there is a non-significant negative correlation (-0.46) among females and a strong positive correlation (0.95) among males between borrowing verbs and age, meaning that as male participants' age increases, the percentages of borrowing verbs increase.



Graph 29: Borrowing verbs: age and gender

In Graph 30, percentages of borrowing other items: adverb, adjectives, and so forth can be observed. There is a negative correlation (-0.86) among females between borrowing other items

and age whereas there is a negative correlation (-0.42) among males. Male high school students, graduates and middle-aged adults borrowed more other items than female participants whereas female university students borrowed more other items than male university students. Moreover, male university students, female graduates and middle-aged adults did not borrow any other items from English.



Graph 30: Borrowing other items: age and gender

When the data is analysed according to two variables age and gender, different correlations are found among females and males. Table 22 summarises the correlations between percentages of borrowed lexical items and age.

Participants	Noun	Verb	Other
Females	-0.81	-0.46	-0.86
Males	-0.15	0.95	-0.42

Table 22: Correlations between borrowing items and age

In this research, correlations beyond at least +0.5 or -0.5 are considered as important. The data indicates that among females, percentages of borrowing nouns and other items decrease as the age of the participants increase, whereas among males, percentages of borrowing verbs increase. Besides, the data reported here appears to support that among males as the age of the participants increases, the level of English improves since borrowing verbs is more difficult than borrowing any other item.

#### ***4.4.4 Types of Lexical Borrowing***

In this section, lexical borrowing types – core and cultural borrowings – will be presented. In the gathered data, 130 different lexical borrowings have been found. Of these borrowings, 48% are core borrowing and 52% are cultural borrowings. Core borrowings are the words that have exact equivalents in the recipient language, but participants prefer using the English equivalents and duplicate the words in the recipient language, Turkish. This phenomenon is explained by the prestige hypothesis (Mertz, 1989, p. 112; Hill & Hill, 1986, p. 103; Kaufman & Thomason, 1992; Grosjean, 1982, pp. 336-337). On the other hand, cultural borrowings, which make up 52 % of the lexical borrowings, are the gap fillers in the recipient language, which is explained by the gap hypothesis (Myers-Scotton, 1993a; Grosjean, 1982; Karttunen & Lockhart, 1976).

The findings of this study suggest that the frequency of types of lexical borrowing for Turkish native speakers is cultural borrowings > core borrowings. Moreover, in this research, core and cultural borrowings found in the data are categorised according to their topics. Table 23 shows all the English words Turkish people borrowed while communicating online with respect to content.

Of the lexical borrowings, 48% occurred because of the participants' search for greater prestige or because of their intragroup motivations. As can be observed from Table 23, all the words related to business and emotions, and most of the words related to daily life, education, emotions, politics, news and social events, and sports are core borrowings.

The data indicate that Turkish people in the study take the concepts or expressions that do not exist in Turkish language. Most of the cultural borrowings found in the data are related to internet and technology. Besides, internet- and technology- related words are repeated many times, used by almost every participant in the research. They are qualified as cultural borrowings because they are new concepts for the recipient language (Myers-Scotton, 2006). Moreover, half of the words taken directly from English related to entertainment are cultural borrowings as neither the concepts nor the words for Halloween, Christmas or twerking exist in Turkish culture or language.

<b>Lexical Borrowing Topics</b>	<b>Core Borrowings (48%)</b>	<b>Cultural Borrowings (52 %)</b>
Business-Work	Creative, Marketing	
Daily life	Bye, Cousin, Hello, Inside, Item, Max, Money, Out-In, Puzzle, Shapes, Stop, Top, Tower, Ugly, Up	Café, Hotdog, Milkshake, Macchiato, Party, Piercing, Slim
Education	Assignment, Attendance, Chapter, Checklist, Curve, Deadline, Edit, Essay, Final, Grammar, Humid, Mist, Moist, Ranking, Quiz, Saturation, Shuttle, Submit, Wet	Micro, Analytics, Subliminal
Emotions	Best, Cool, Sorry, Why	
Entertainment	Best, Concert, Cool, Inside, Media, Money, Night, Party, Show, Star, Track, Top	Christmas, Club, Doggy, Halloween, Hobbit, Hype, Milkshake, Macchiato, Playback, Twerk
Internet-Technology		Affordance, Armor, Backlink, Blog, Blogger, Caps, Domain, Email, Emoji, Enter, Forward, Follow, Hack, Hacker, Grave, Launchpad, Level, Link, Mail, Manuel, Map, Mention, Mobile, Mute, Official, Offline, Online, Post, Prototype, Recall, Retweet, Scope, Selfie, Social, Support, Spam, Snapchat, Swarm, Timeline, Tool, Unfollow, Web, Whiteout,
Politics-News	Gay, Fix, Homophobic, Okay, Point, Rape, Social	Nigger, Stalker,
Sports	Basketball, Block, Respect, Show	Quidditch, Squat, Wingsuit,

Table 23: List of cultural and core borrowings

The results of this research are in line with the previous study. According to Matras (2009) cultural borrowings are more common than core borrowings and this research showed that during online communication, among Turkish native speakers, cultural borrowings are more common than core borrowings. In the following section, lexical borrowing types will be analysed with respect to two variables of age and gender.



#### 4.4.4.1 Types of Lexical Borrowing & Age

Table 24 shows the numbers and percentages of types of lexical borrowing with respect to age. It is apparent from the table that 36% of the borrowings of high school students, 59% of the borrowings of university students, 31% of the borrowings of graduates and 64% of the borrowings of middle-aged adults are core borrowings.

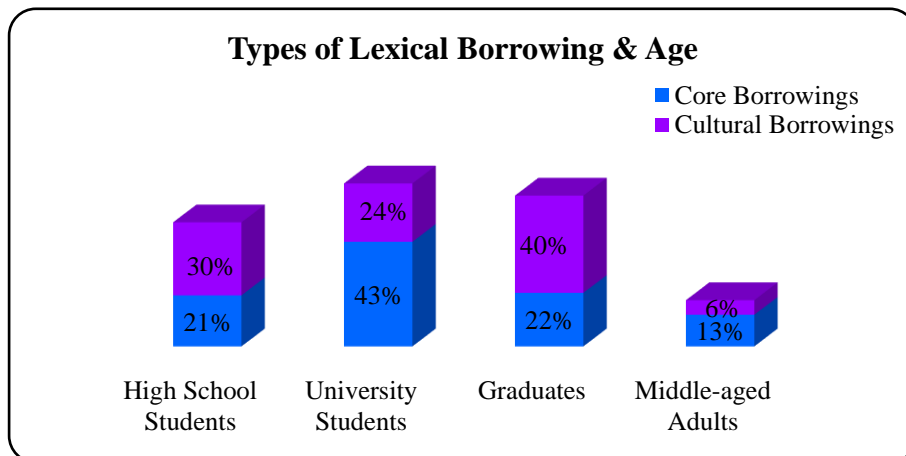
Participants	Age	Core Borrowings		Cultural Borrowings	
		Number	Percentage	Number	Percentage
High School Students	14-18	14	36%	25	64%
University Students	19-24	29	59%	20	41%
Graduates	25-44	15	31%	33	69%
Middle-aged Adults	45-64	9	64%	5	29%

Table 24: Types of lexical borrowing and age

Table 25 summarises the frequency of types of lexical borrowing for each age group. As can be observed, high school students and graduates have more cultural borrowings than core borrowings, whereas university students and middle-aged adults have more core borrowings than cultural borrowings. These findings suggest that Turkish native high school students and graduates take new concepts that do not exist in the Turkish language more than the words that already exist in Turkish language. However, Turkish native university students and middle-aged adults borrow more English words that have equivalents in Turkish because of the need of greater prestige or because of their intragroup motivations.

Frequency of Types of Lexical Borrowing	Age Groups
Core Borrowings > Cultural Borrowings	University Students Middle-aged Adults
Cultural Borrowings > Core Borrowings	High School Students Graduates

Table 25: Frequency of types of lexical borrowing and age



Graph 31: Types of lexical borrowing and age

Graph 31 shows the percentages of cultural and core borrowings for each age group. The percentages of cultural borrowings reach a peak with graduates providing 40% of the cultural borrowings found in the data, followed by high school students (30%), university students (24%), and finally, middle aged adults (6%). However, there is a negative correlation (-0.63) between age and cultural borrowings, indicating that as the age of participants increases, the amount of core borrowings decreases. Graph 31 indicates that university students make up 43% of the core borrowings found in the data, followed by graduates (22%), high school students (21%), and finally, middle-aged adults (13%). There is a negative correlation (-0.61) between core borrowings and age which indicates that as the age of the participants increases, the amount of core borrowings decreases. As a whole, the study has shown that the amount of core and cultural borrowings decrease as the age of the participants decrease.

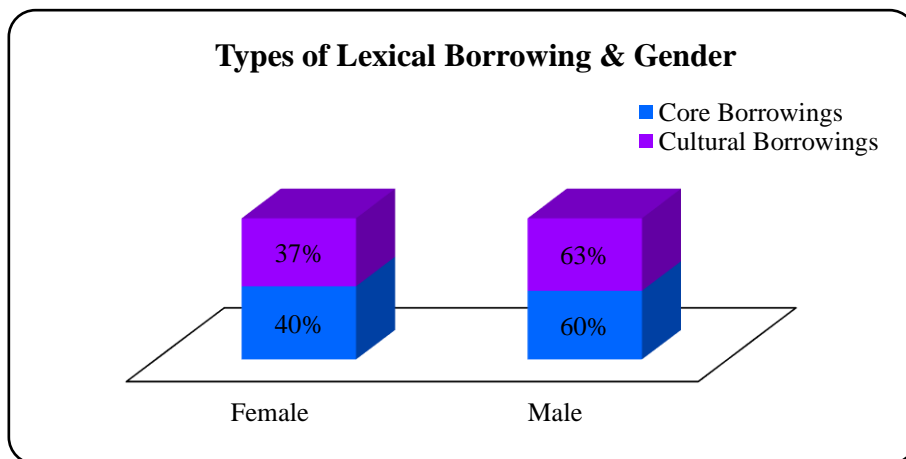
#### 4.4.4.2 Types of Lexical Borrowing & Gender

Table 26 illustrates the types of lexical borrowing with respect to gender. Of the female lexical borrowings 53% are cultural borrowings and 47% are core borrowings, whereas 57% of the male lexical borrowings are cultural borrowings and 43% are core borrowings. The frequency of types of lexical borrowing both for females and males is the same; cultural borrowings > core borrowings. In other words, both females and males have more cultural borrowings than core borrowings which indicates that they both take new concepts that do not exist in the Turkish language more than the words that already exist in Turkish language.

Participants	Core Borrowings	Cultural Borrowings
Females	47%	53%
Males	43%	57%

Table 26: Types of lexical borrowing and gender

In Graph 32, percentages of types of lexical borrowing with respect to gender are presented. Females provide 40% of the core borrowings and 37% of the cultural borrowings found in the data whereas males provide 60% of the core borrowings and 63% of the cultural borrowings. As can be observed, male participants have more core and cultural borrowings than female participants.



Graph 32: Types of lexical borrowing and gender

#### 4.4.4.3 Types of Lexical Borrowing Age & Gender

In this section types of lexical borrowings will be analysed with respect to age and gender. In Table 27, cultural and core borrowings for each age group and gender can be observed.

Participants	Female		Male	
	Core Borrowings	Cultural Borrowings	Core Borrowings	Cultural Borrowings
High School Students	Best, Money, Ugly	Offline, Online, Piercing, Selfie, Snapchat, Spam, Swarm, Unfollow	Basketball, Best, Block, Concert, Cool, Cousin, Map, Max, Okay, Top, Stop	Armor, Emoji, Grave, Hobbit, Link, Media, Mention, Milkshake, Prototype, Scope, Selfie, Slim, Subliminal, Support, Tower, Twerk, Wingsuit
University Students	Assignment, Attendance, Chapter, Cool, Curve, Deadline, Deadline, Essay, Final, Fix, Homophobic, Inside, Puzzle, Quiz, Respect, Show, Shuttle, Sorry, Star, Submit, Up	Analytics, Block, Blogger, Enter, Halloween, Hobbit, Level, Macchiato, Mail, Mute, Official, Online, Post, Quidditch, Squat, Stalker, Timeline	Grammar, Final, Item, Money, Night, Party, Point, Show	Club, Micro, Spam
Graduates	Fix, Deadline	Blog, Blogger, Block, Halloween, Hobbit, Sorry	Checklist, Creative, Gay, Hello, Marketing, Puzzle, Ranking, Rape, Shapes, Social, Top, Track, Why	Affordance, Analytics, Backlink, Blog, Café, Christmas, Club, Doggy, Domain, Email, Follow, Forward, Hack, Hacker, Hype, Launchpad, Manuel, Mobile, Nigger, Online, Playback, Recall, Retweet, Social, Spam, Tool, Web,
Middle-aged Adults	Selfie		Bye, Edit, Humid, Mist, Moist, Out-In, Saturation, Wet	Café, Hack, Hotdog, Unfollow, Whiteout

Table 27: Cultural and core borrowings: age and gender

Table 28 presents the numbers and percentages of types of borrowings with respect to age and gender. 73% of the borrowings of female high school students are cultural borrowings and 27% are core borrowings, whereas 61% of the borrowings of male high school students are cultural borrowings and 39% are core borrowings.

Participants	Female				Male			
	Cultural Borrowings		Core Borrowings		Cultural Borrowings		Core Borrowings	
	Number	%	Number	%	Number	%	Number	%
High School Students	8	73%	3	27%	17	61%	11	39%
University Students	17	45%	21	55%	3	27%	8	73%
Graduates	6	75%	2	25%	27	68%	13	32%
Middle-aged Adults	0	0%	1	100%	5	38%	8	62%

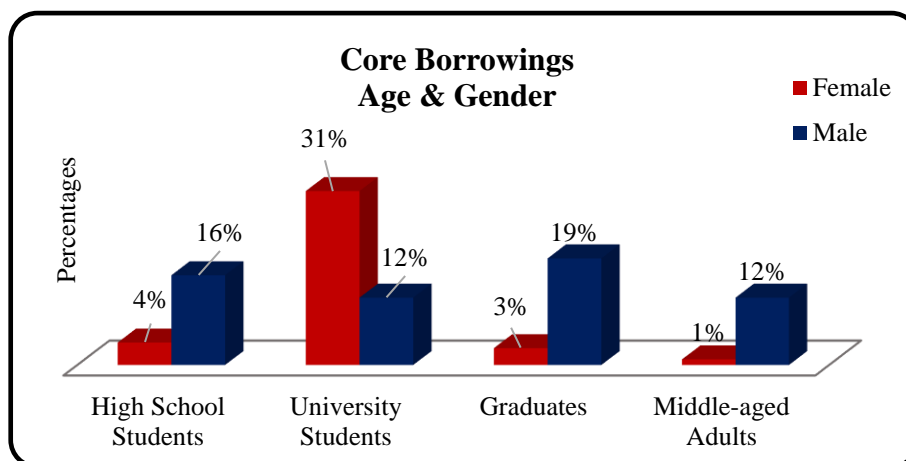
Table 28: Types of lexical borrowings: age and gender

Table 29 summarises the frequency of types of lexical borrowings for each group. The frequency of types of borrowings for high school students and graduates is cultural borrowings > core borrowings. In other words, among high school students and graduates both females and males have more cultural borrowings than core borrowings. These findings suggest that both female and male high school students and graduates take new concepts from English more than the words that already exist in Turkish language. On the other hand, among university students and middle-aged adults, both females and males have more core borrowings than cultural borrowings which is explained by the prestige hypothesis. In other words, university students and middle-aged adults borrowed English words that have equivalents in Turkish because of the need of greater prestige or because of their intragroup motivations

Frequency of Types of Lexical Borrowing	Participants
Core Borrowings > Cultural Borrowings	Female University Students Male University Students Female Middle-aged Adults Male Middle-aged Adults
Cultural Borrowings > Core Borrowings	Female High School Students Male High School Students Female Graduates Male Graduates

Table 29: Frequency of types of borrowings: age and gender

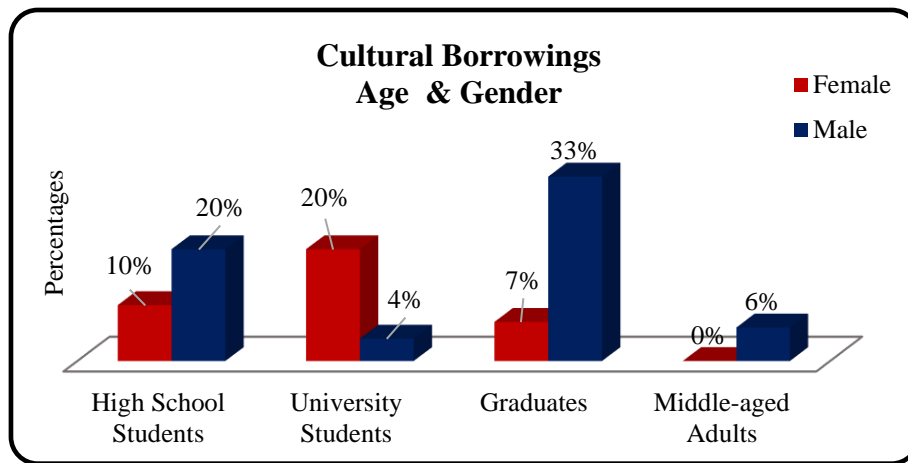
Graph 33 illustrates the percentages of the core borrowings with respect to age and gender. As can be seen, core borrowings reach a peak with female university students and reach the lowest value with female middle-aged adults. Furthermore, among high school students, graduates and middle-aged adults, male participants have more core borrowings than females, whereas among university students, females have more core borrowings than males. However, both among females (-0.47) and males (-0.24) weak correlations are found between amount of core borrowings and age.



Graph 33: Core borrowings: age and gender

Graph 34 illustrates the percentages of cultural borrowings with respect to age and gender. Among females, there is a negative correlation (-0.79) between cultural borrowings and age whereas among males, there is a weak, non-significant negative correlation (-0.17). Thus, we

could say that among females, as the age of the participants increases, the percentages of cultural borrowing decrease.



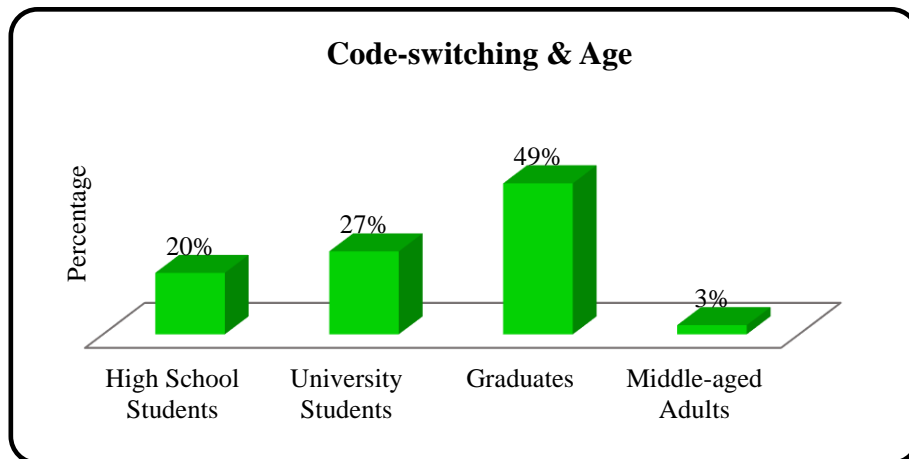
Graph 34: Cultural borrowings: age and gender

#### 4.4.5 Code-switching

In the present study, CS is defined as “the ability on the part of bilinguals to alternate effortlessly between their two languages” (Bullock & Toribio, 2009, p. 1). In this section, CS with respect to age and gender will be presented. In the data, 175 instances of CS between English and Turkish which makes up 3.32% of all the tweets have been found.

##### 4.4.5.1 Code-switching & Age

Graph 35 shows percentages of CS with respect to age. As can be observed, CS percentages reach a peak with graduates (49%) and reach the lowest value with middle-aged adults (3%). The data in the given graph reflects that graduates (49%) provide almost half of the CS found in the gathered data.

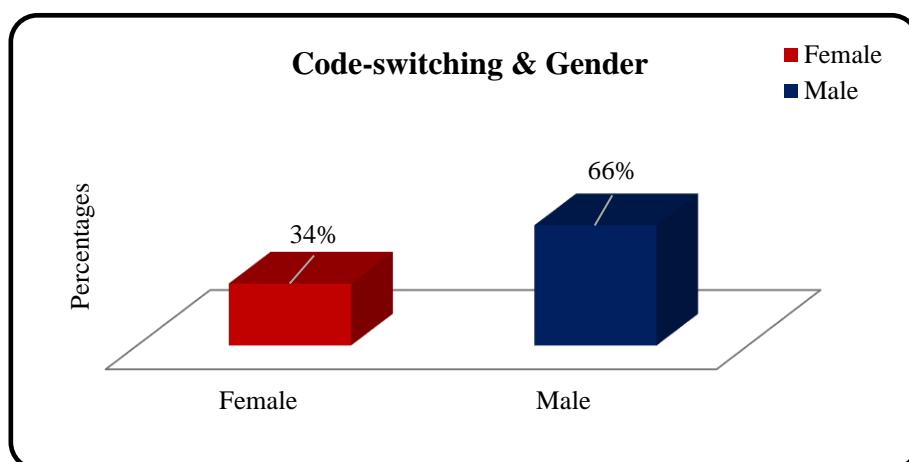


Graph 35: CS and age

There is a weak, non-significant negative correlation (-0.38) between age and CS. However, when middle-aged adults are not taken into consideration, there is a strong correlation of +1, which indicates that CS percentages increase from high school students to graduates. The reason why middle-aged adults code-switch to English less frequently than any other age group might be their negative attitude towards CS (Koban, 2016).

#### 4.4.5.2 Code-switching & Gender

In Graph 36 percentages of CS with respect to gender can be observed. As can be seen from the graph, males provide 66% of the CS found in the data whereas females 34%.



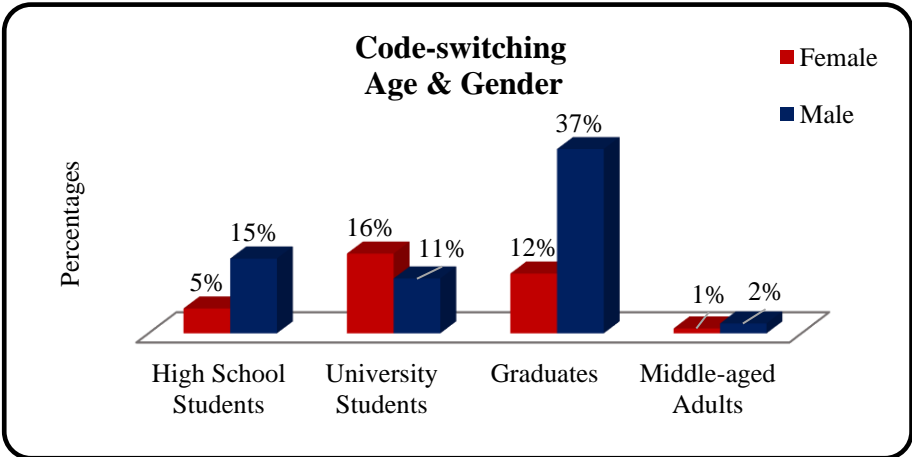
Graph 36: CS and gender



The reason why female participants code-switched to English less than males could be explained with their negative attitude towards CS. The results of this study are in line with the study (Koban, 2016) that investigated the attitudes of Turkish people towards CS with respect to gender. Koban (2016) found that females have more negative attitudes towards CS than males; in her study 65% of the females and 50% of the males think that mixing Turkish and English in the same conversation does not sound pretty and 44% of the males and 59% of the females think that mixing English and Turkish causes degeneration in the Turkish language.

4.4.5.3 Code-switching: Age & Gender

Graph 37 presents the percentages of CS with respect to age and gender. Among high school students, graduates and middle-aged adults, males code-switched to English more than females, whereas among university students, females code-switched more than males.

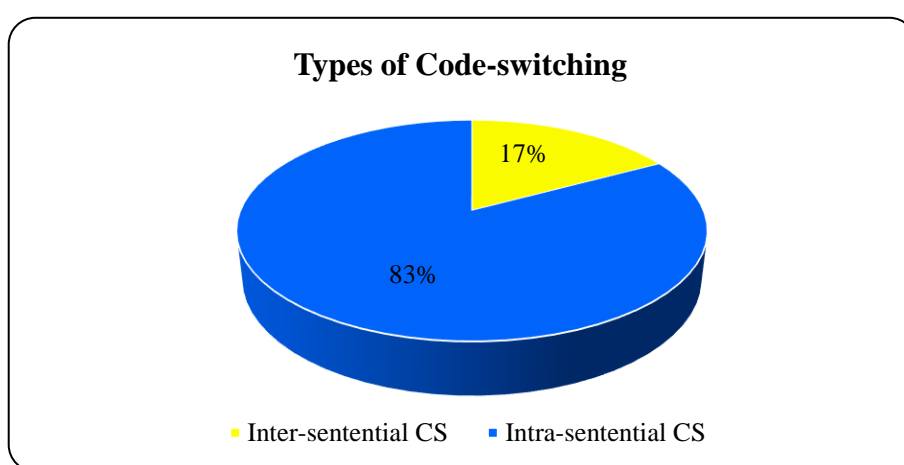


Graph 37: CS: age and gender

A glance at the graphs reveals that there is a significant difference between male and female graduates. Male participants make up 37% of the CS found in the data, much more than females (12%). However, there is a non-significant negative correlation (-0.25) among males between age and CS, whereas among females, there is a negative correlation of -0.53, indicating that as the age of the female participants increases, the amount of CS decreases.

#### 4.4.6 Types of Code-switching

In this section, CS types; intra-sentential CS, a language shift in the middle of a sentence, and inter-sentential CS, the alternation between two languages within the same discourse, will be analysed with respect to age and gender. Graph 38 shows the percentages of CS types by Turkish people communicating online. Of the CS found in the data, 83% is intra-sentential CS in which participants switched from Turkish to English within the same sentence, whereas 17% is inter-sentential CS in which the participants switch between sentences. In other words, Turkish people in the study have more intra-sentential CS than inter-sentential CS in their posts.



Graph 38: Types of CS

Examples (44) and (45) below illustrate inter-sentential CS, where participants start a sentence in Turkish and finish with an English phrase:

(44) Allahim bunun neresi *good morning*

Translation: God which part of this is a *good morning*

(45) kadar dogru ki - *The best thing about winter coming.*

Translation: It's so true - *The best thing about winter coming.*

Examples (46) and (47) below illustrate intra-sentential CS where participants switch from Turkish to English within the same sentence:

(46) *Team workün avantajelerini yazmaya döniyim ben :*((

Translation: I am going back to write advantages of team work

(47) Mühendislikte sadece *present simple tense* var lan

Translation: In engineering, there is only present simple tense

In the following section types of CS will be analysed firstly with respect to age, followed by gender, and finally, with respect to age and gender together.

#### 4.4.6.1 Types of Code-switching & Age

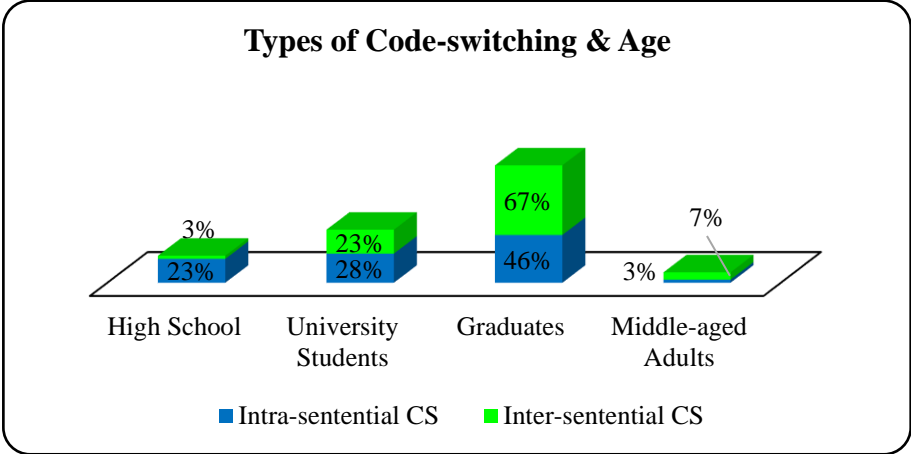
In Table 30, types of CS with respect to age are illustrated. As can be observed from the table, 3% of the CS of the high school students are inter-sentential and 97% are intra-sentential CS, whereas 15% of the CS of the university students are inter-sentential and 85% are intra-sentential CS. The results of this research are in line with the previous study conducted among Turkish university students in 2011 (Tastan, 2012). The previous study showed that 31% of the university students' CS are inter-sentential and 69% are intra-sentential CS. Among graduates, 23% of the CS are inter-sentential and 77% are intra-sentential CS, whereas among middle-aged adults 33% of the CS are inter-sentential and 67% are intra-sentential CS. These findings indicate that each age group have more intra-sentential CS than inter-sentential CS. Thus, the frequency of types of CS for each age group is intra-sentential CS > inter-sentential CS.

Participants	Age	Inter-sentential CS		Intra-sentential CS	
		Number	Percentage	Number	Percentage
High School Students	14-18	1	3%	34	97%
University Students	19-24	7	15%	41	85%
Graduates	25-44	20	23%	66	77%
Middle-aged Adults	25-44	2	33%	4	67%

Table 30: Types of CS and age

Graph 39 presents types of CS with respect to age. Intra-sentential CS reaches a peak with graduates making up 46% of the intra-sentential CS found in the data and reaches the lowest

value with middle-aged adults (3%). Inter-sentential CS reaches a peak with graduates providing 67% of the inter-sentential CS found in the data and reaches the lowest point with high school students (3%). No correlation was found between inter-sentential CS and age. However, when middle-aged adults are not taken into consideration, data indicates that there is a strong positive correlation of +1 between inter-sentential CS and age; percentages of inter-sentential CS increase as the age of the participants increase from high school students to graduates. There is a weak negative correlation (-0.49) between intra-sentential CS and age. However, when middle-aged adults are not taken into consideration, there is a strong positive correlation of 0.99 between age and intra-sentential CS which indicates that percentages of intra-sentential CS increase from high school students to graduates.



Graph 39: Types of CS and age

Lipski (1985) stated that intra-sentential CS requires the most fluency because the speaker switches the syntax rules of the language in the middle of a sentence which can be performed by the fluent bilingual speaker. As from high school students to graduates, intra-sentential CS percentages increase, we could say that English fluency increases as the age of the participants increase from high school to graduates and decreases with middle-aged adults. However, these findings are in contradiction with the EF EPI (2017) report which shows that college-aged young adults aged 18-20 have the highest English score (53.82) and the scores decrease as the age increased.

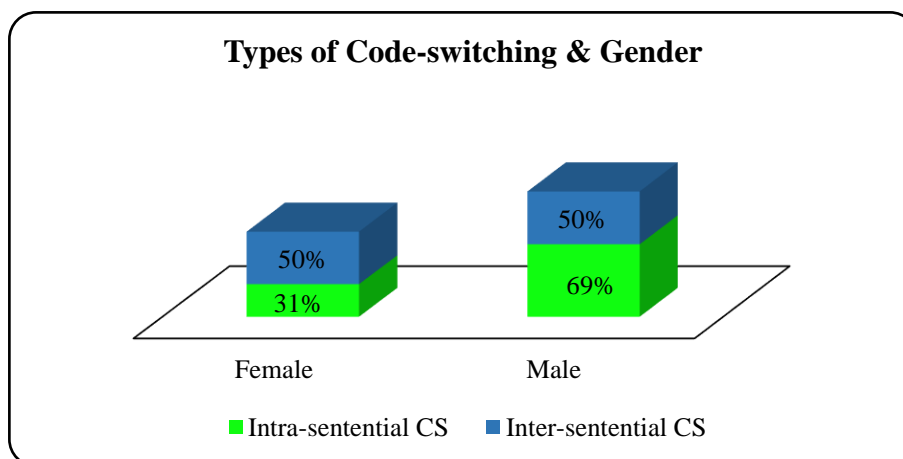
#### 4.4.6.2 Types of Code-switching & Gender

In Table 31, percentages of types of CS with respect to gender are presented. As can be seen from the Table 31, 25% of the female CS are inter-sentential CS and 75% are intra-sentential CS, whereas 13% of the male CS are inter-sentential CS and 87% are intra-sentential CS. In other words, the frequency of types of CS both for females and males is intra-sentential CS > inter-sentential CS.

Participants	Inter-sentential CS	Intra-sentential CS
Female	25%	75%
Male	13%	87%

Table 31: Types of CS and gender

In Graph 40, percentages of the types of CS with respect to gender are presented. Surprisingly, data indicate that exactly half of the inter-sentential CS belongs to females and the other half belongs to males. However, there is a significant difference between females and males in the amount of intra-sentential CS: females make up 31% of the intra-sentential CS found in the data whereas males make up 69%.



Graph 40: Types of CS and gender

According to Lipski (1985), intra-sentential CS requires the most fluency so we could say that male participants are more fluent in English than female participants but this conclusion

conflicts with the EF English Proficiency Index (2017) report for Turkey. According to this report, females in Turkey with 49.94 points have higher English proficiency than males with 46.28 points.

#### 4.4.6.3 Types of Code-switching: Age & Gender

In this section, types of CS will be analysed with respect to age and gender. Table 32 presents the percentages of inter-sentential and intra-sentential CS with respect to age and gender. As can be seen from the table, 11% of the CS of female high school students are inter-sentential CS and 89% are intra-sentential CS. Male high school students and male university students do not have any inter-sentential CS in their posts, whereas 25% of the CS of female university students, 29% of the CS of female graduates, 50% of the CS of female middle-aged adults, 22% of the CS of male graduates and 25% of the CS of male middle-aged adults are inter-sentential CS.

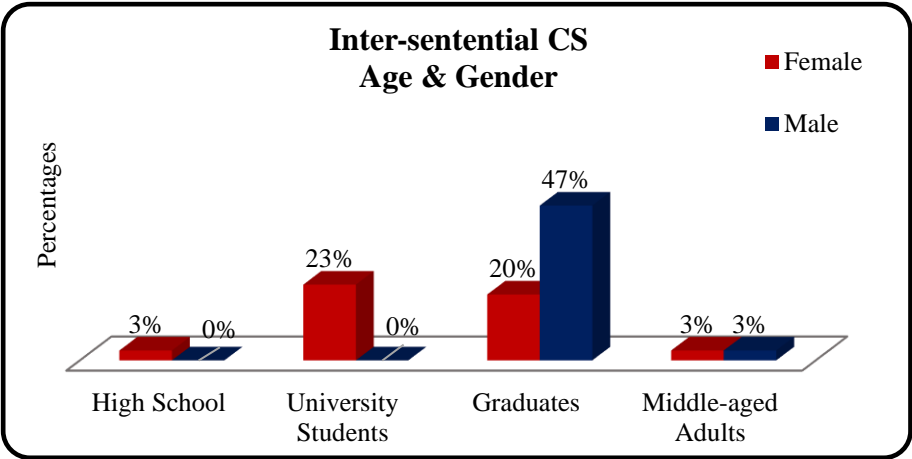
Participants	Inter-sentential CS				Intra-sentential CS			
	Female		Male		Female		Male	
	Number	%	Number	%	Number	%	Number	%
High School Students	1	11%	0	0%	8	89%	26	100%
University Students	7	25%	0	0%	21	75%	20	100%
Graduates	6	29%	14	22%	15	71%	51	78%
Middle-aged Adults	1	50%	1	25%	1	50%	3	75%

Table 32: Inter-sentential and intra-sentential CS: age and gender

The data in Table 32 given above indicate that 89% of the CS of female high school students, 75% of the CS of female university students, 71% of the CS of female graduates, 50% of the CS of female middle-aged adults, 78% of the CS of graduates and 75% of the CS of the male middle-aged adults are intra-sentential CS. Moreover, high school and university male students only have intra-sentential CS in their posts. As can be seen from the table, in each group except

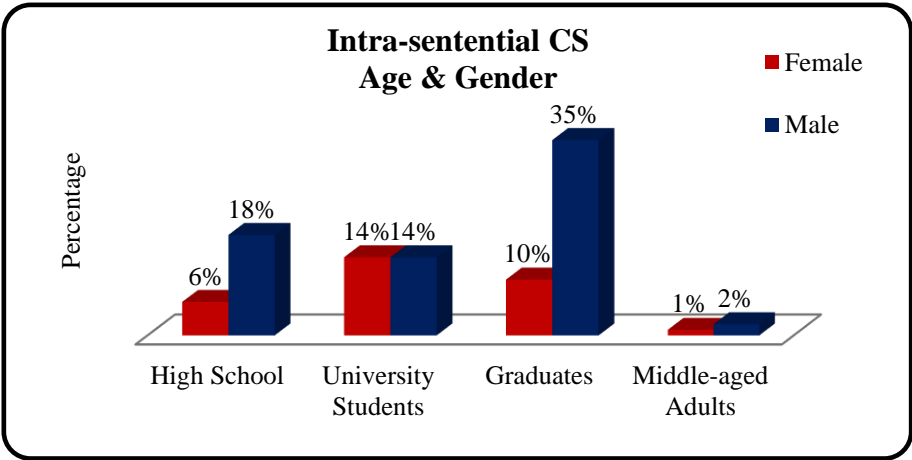
female middle-aged adults, participants have more intra-sentential CS than inter-sentential CS. Only, female middle-aged adults have the same amount of inter-sentential and intra-sentential CS.

In Graph 41, the percentages of inter-sentential CS with respect to age and gender are presented. Inter-sentential CS reaches a peak with male graduates with 47%, followed by female university students (23%) and female graduates (20%). Both among females (-0.27) and males (0.17), there is a weak, non-significant correlation between age and inter-sentential CS.



Graph 41: Inter-sentential CS: age and gender

In Graph 42, intra-sentential CS with respect to age and gender can be seen. Intra-sentential CS reaches a peak with male graduates with 35%, followed by male high school students with 18%.



Graph 42: Intra-sentential CS: age and gender

Besides, there is a negative correlation (-0.64) among females between age and intra-sentential CS and weak, non-significant negative correlation (-0.39) among males. We could say that, as the age of the female participants increases, the percentages of intra-sentential CS decrease.

#### **4.4.7 Summary: Language Contact Phenomena**

In this research, language contact between English and Turkish on Twitter has been analysed firstly with respect to age, followed by gender, and finally, with respect to age and gender together. The global results of language contact phenomena with respect to age are summarized in the Table 33.

<b>Language Contact Global Results: Age</b>				
<b>Participants</b>	<b>English Online Abbreviations</b>	<b>Lexical Borrowing</b>	<b>Code-switching</b>	<b>Posts in English</b>
High School Students	63%	28%	20%	3%
University Students	12%	30%	27%	3%
Graduates	21%	33%	49%	14%
Middle-aged Adults	5%	9%	3%	1%

Table 33: Language contact global results: age

In this section (4.4) firstly, English online abbreviations are analysed with respect to age and from the results, we can conclude that English abbreviations are widely used by high school students and they are mainly related to games, technology and the social networking site Twitter. Secondly, lexical borrowing from English are analysed with respect to age and it is found that lexical borrowing increases from high school students to university students and reaches a peak with graduates, and reaches the lowest value with middle-aged adults. Thus, this study has demonstrated that while communicating online, younger generations borrow more English words than older generations. Moreover, analysing borrowed lexical items (nouns, verbs and other items) has shown that Turkish native speakers' frequency of borrowing items



from English to Turkish is Nouns> Verbs> Others. Each age group borrowed nouns more than any other lexical item, and except high school students (Nouns> Others> Verbs) for each age group the frequency of borrowing items is the same (Nouns> Verbs> Others). Furthermore, the data indicate that as the age of the participants increases, amount of borrowing nouns and other items decreases.

The present study is designed to find out why Turkish people borrow words from English. Analysing lexical borrowing types on Twitter has shown that Turkish native speakers in the study tend to borrow more cultural borrowings than core borrowings while communicating online and most of the cultural borrowings they borrow are Internet- and technology- related words. The data revealed that the reason why Turkish people borrow words from English changes for each group. When the data are analysed with respect to age, it is found that high school students and graduates have more cultural borrowings than core borrowings whereas university students and middle-aged adults have more core borrowings than cultural borrowings. Taken together, these findings suggest that Turkish native high school students and graduates take new concepts that do not exist in the Turkish language – cultural borrowings – from English more than the words that already exist in Turkish language – core borrowings –. Turkish native university students and middle-aged adults in the study seems to borrow more English words that have equivalents in Turkish because of the need of greater prestige or because of their intragroup motivations.

Thirdly, CS and types of CS have been analysed and the data have revealed that half of the CS found in the data belong to graduates. Besides, CS increases from high school students to university students, and reaches a peak with graduates, and finally, reaches the lowest value with middle-aged adults which might indicate their negative attitude towards CS (Koban, 2016). Furthermore, when types of CS are analysed, it is found that frequency of types of CS of Turkish native speakers is intra-sentential CS> inter-sentential CS. Besides, findings in the present study suggest that each age group have more intra-sentential CS than inter-sentential CS. Moreover, number of intra-sentential and inter-sentential CS increase with strong correlations from high school students to graduates as the age of the participants increases.

Finally, analysing posts in English which is previously discussed in section (4.2) has shown that graduates write only in English more often than any other age group (14%), followed by high school and university students. It can be observed from the Table 33 that only 1% of

middle-aged adults' posts are in English. However, when middle-aged adults are not taken into consideration, it is found that the percentage of posts in English increase with a strong correlation (0.94) as the age of the participants increases from high school to university students and finally to graduates. Overall, the data indicate that there is a noticeable generation gap as middle-aged adults use less English online abbreviations (5%) in their tweets, have less lexical borrowings (9%), code-switch to English (3%) with less frequency and have less posts in English (1%) than the other age groups.

In this study, language contact between English and Turkish has been analysed with respect to gender and the global results are summarized in the Table 34.

<b>Language Contact Global Results: Gender</b>				
<b>Participants</b>	<b>English Online Abbreviations</b>	<b>Lexical Borrowing</b>	<b>Code-switching</b>	<b>Posts in English</b>
Male	81%	60%	66%	6%
Female	19%	40%	34%	5%

Table 34: Language contact global results: gender

Firstly, English online abbreviations are analysed with respect to gender and from the results, we can conclude that male participants (81%) use significantly more English abbreviations than females (19%). Thus, further research should be undertaken to find out the reasons. However, among males, as the age of participants increase, the use of English abbreviations while communicating online decrease. Secondly, lexical borrowing from English is analysed with respect to gender and found that males (60%) borrow significantly more English words than females (40%). Moreover, the data reveal that the frequency of borrowing items for females is Nouns> Verbs> Others and for males is Nouns> Others> Verbs which could indicate an improved level of English of female participants as borrowing verbs is more difficult that borrowing other items. On the other hand, among females as the age of the participants increases, the tendency of borrowing nouns and other items decreases, whereas among males the tendency of borrowing verbs increases which might indicate that the level of English among males is improving as the age of the participants increases. Furthermore, when lexical borrowing types are analysed with respect to gender it was seen that both females and males have more cultural borrowings than core borrowings. In other words, both females and males

borrow English word to refer to new concepts that do not exist in the Turkish language more than the words that already exist in Turkish language. Thirdly, analysing the instances of CS between English and Turkish with respect to gender revealed that males code-switch to English (66%) almost as twice as females do (34%) which could be explained with the negative attitude of females towards CS (Koban, 2016). Moreover, both females and males have more intra-sentential CS than inter-sentential CS. Finally, analysing posts only in English has shown that there is no significant difference between females (5%) and males (6%). Overall, the gender gap is noticeable as males use more English online abbreviations (81%), have more lexical borrowings (60%) in their tweets, code-switch to English (66%) more often and have more posts in English (6%) than the female participants.

Finally, language contact between English and Turkish has been analysed with respect to two variables, age and gender together, and the global results are summarized in the Table 35.

<b>Language Contact Global Results: Age &amp; Gender</b>				
<b>Participants</b>	<b>English Online Abbreviations</b>	<b>Lexical Borrowing</b>	<b>Code-switching</b>	<b>Posts in English</b>
Female High School Students	0%	12%	5%	4%
Male High School Students	63%	16%	15%	4%
Female University Students	9%	21%	16%	3%
Male University Students	2%	8%	11%	5%
Female Graduates	7%	6%	12%	25%
Male Graduates	14%	27%	37%	16%
Female Middle-aged Adults	2%	1%	1%	3%
Male Middle-aged Adults	2%	9%	2%	0%

Table 35: Language contact global results: age and gender

Firstly, analysing English online abbreviations with respect to age and gender revealed that male high school students make up 63% of the abbreviations found in the data, which is much more than any other age and gender group. Besides, they mainly use abbreviations related to games, technology and the social networking site Twitter, such as Fps, Mp3, Fav, SMS, Bf4, Ssd. However, it is found that among males, as the age of the participants increases, the percentages of English abbreviations used in tweets decrease. Secondly, analysing lexical

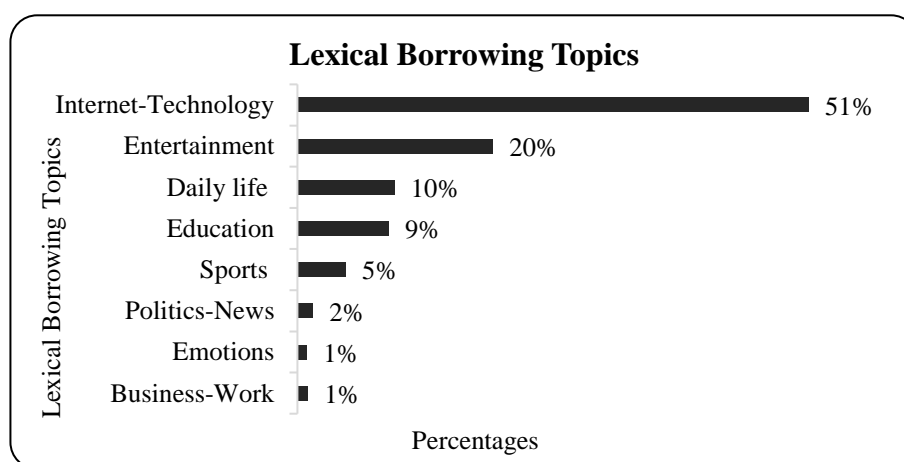
borrowing has shown that male graduates (27%) followed by the female university students (21%) borrow more English words than other groups. Moreover, it is found that among females as the age of the participants increases, the amount of lexical borrowing decreases. Besides, the data indicate that among females, number of borrowing nouns and other items decrease as the age of the participants increases, whereas among males, number of borrowing verbs increases. Furthermore, frequency of borrowing items for university students, female graduates and male middle-aged is Nouns> Verbs> Others whereas for high school students and male graduates is Nouns> Others > Verbs and for female middle-aged adults is Nouns> Verbs= Others= 0. Analysing lexical borrowing types with respect to two variables age and gender together revealed that both female and male participants among university students and middle-aged adults have more core borrowings than cultural borrowings whereas among high school students and graduates both female and male participants have more cultural borrowings than core borrowings. In other words, both female and male high school students and graduates borrow English word to refer to new concepts that do not exist in the Turkish language more than the words that already exist in Turkish language. On the other hand, both female and male university students and middle-aged adults borrow words that already exist in Turkish language more than the words to refer to new concepts that do not exist in the Turkish language. Moreover, both among females and males, negative correlations are found; the percentages of core and cultural borrowings decrease as the age of the participants increases. Thirdly, analysing the instances of CS between English and Turkish with respect to age and gender together has shown that male graduates (37%) code-switch to English more than other age and gender groups and there is a significant difference between male (37%) and female graduates (12%). Furthermore, each group except female middle-aged adults having the same amount of inter-sentential and intra-sentential CS, participants have more intra-sentential CS than inter-sentential CS. Besides, negative correlation (-0.53) among females indicates that as the age of the female participants increases, the amount of CS decreases. Finally, when the posts only English are analysed, it is found that female graduates (25%) have the highest number of tweets in English followed by the male graduates (16%). Besides, the data suggest that the number of posts in English increases from high school students to graduates both among females and males, and goes down with the female and male middle-aged adults.

## 4.5 Topics in which English Appears

In this section, the contents of lexical borrowing, CS and posts in English will be analysed with respect to age and gender. In lexical borrowing, borrowed words are categorised in 8 different topics: business and work, daily life, education, emotions, entertainment, internet-technology, politics-news and sports. Code-switches found in the data are categorised in 9 different topics: business and work, daily life, education, emotions, entertainment, internet and technology, location and travelling, politics-news, and sports. Finally posts in English are categorised in 10 different topics: business and work, daily life, education, emotions, entertainment, internet and technology, location and travelling, politics-news, quotations, and sports.

### 4.5.1 Lexical Borrowing Topics

In this section, lexical borrowings will be analysed according to their topics. In Graph 43, the percentages of lexical borrowing topics of Turkish people communicating online can be seen.



Graph 43: Lexical borrowing topics

As can be seen from the graph, Turkish people borrowed words from English related to the internet and technology the most with 51% followed by entertainment with 20%, daily life with 10% and education with 9%. They also borrowed words related to sports with 5%, politics-news with 2%, emotions and business-work with 1%.

Rosenhouse and Kowner (2008) stated that there are three main routes of dissemination of English words: direct communication, mass media and the education system. The results of this study are in line with this statement since words related to the internet and technology make up 51% of the borrowed words, entertainment 20% and education 9%. When a society is more exposed to English by the mass media; newspapers, radio, cinema, TV, and the Internet, its citizens have a greater tendency to learn and borrow English words. These results indicate that Turkish people in the research are exposed to English through the internet and online communication the most, followed by the movies, series and music and finally through the education system.

As most of the technological developments have come from the West over the past three centuries, Turkish people borrow English words, such as new terminology related to technology, in order to fill the lexical gaps in this field. The borrowings related to internet and technology are followed in frequency by the entertainment-related lexical borrowings. The reason for borrowing words related to entertainment from English could be explained with the prestige hypothesis; speakers borrow elements from the language which is socially more dominant in order to gain social status. This would appear to indicate that Turkish speakers find the English language more attractive and borrow words even though these words exist in the Turkish language.

#### *4.5.1.1 Lexical Borrowing Topics & Age*

In this section, the lexical borrowing topics will be analysed with respect to age. Table 36 presents lexical borrowing topics with respect to age. The data reveals that 56% of the borrowings of high school students are words related to the internet and technology, followed by entertainment with 26%, daily life and sports with 8% and finally emotions with 2%. They did not borrow any words related to politics, education or business.

Moreover, 39% of the borrowings of university students are words related to the internet and technology, followed by education with 28%. However, university students participated in this research study at an English language instructed university and these results may well be different for students who receive an education only in Turkish. They borrowed words related to entertainment with 17%, sports with 9%, daily life with 6% and finally politics with 2%.

They did not borrow any words related to emotions or business and work. The results of this research are in line with the previous research (Tastan, 2012) which was conducted among Turkish university students over a period of two months; from August 2011 to September 2011. In that study, it was found that Turkish university students borrowed internet and technology-related words at a rate of 34%, followed by education with 27% and entertainment with 23%.

<b>Lexical Borrowing Topics</b>	<b>High School Students</b>	<b>University Students</b>	<b>Graduates</b>	<b>Middle-Aged Adults</b>
Business-Work	0%	0%	3%	0%
Daily life	8%	6%	12%	24%
Education	0%	28%	2%	6%
Emotions	2%	0%	2%	0%
Entertainment	26%	17%	24%	0%
Internet-Technology	56%	39%	54%	71%
Politics-News	0%	2%	3%	0%
Sports	8%	9%	0%	0%
Total	100%	100%	100%	100%

Table 36: Lexical borrowing topics and age

Table 37 compares the findings of two studies. We can see that the internet and technology- and education- related lexical borrowings have increased whereas entertainment-related lexical borrowings have decreased. Thus, we could say that university students might be dedicating more time to internet and technology and less time to entertainment during the months October, November and December, than August and September. The reason why education-related lexical borrowing percentages are higher in the present study than the previous one could be because of the periods during which the two pieces of research were conducted. The preliminary research was conducted before the courses at the universities started and the present research was conducted during the academic year.

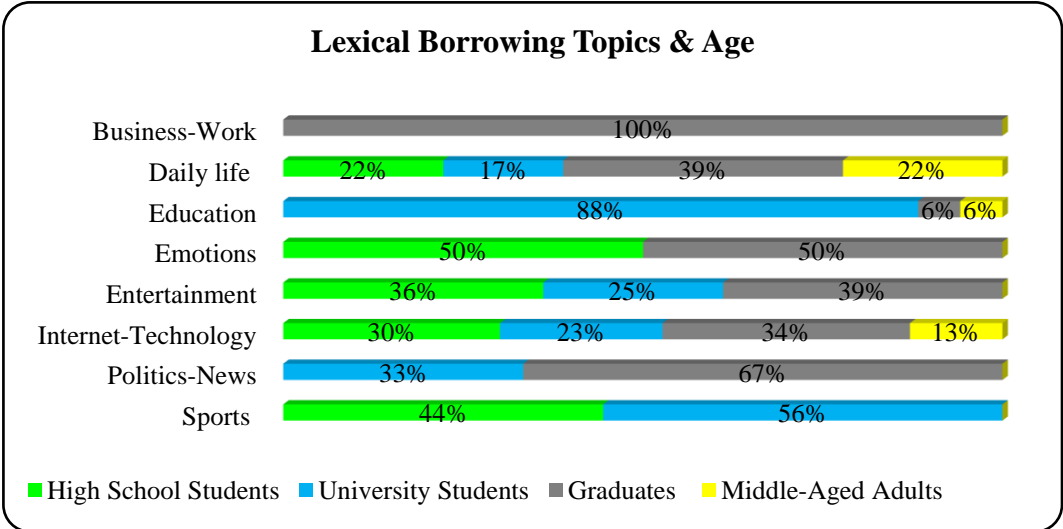
Graduates, like any other age group, borrowed internet and technology-related words the most with 54%, followed by entertainment with 24%, daily life with 12%, politics and business with 3%, and finally emotions and education with 2%. They did not borrow any words related to sports. Middle aged adults borrowed English words related to the internet and technology the

most with 71%, followed by daily life with 24% and finally education with 6%. They did not borrow any words related to sports, politics, entertainment, emotions or business.

University Students Lexical Borrowing Topics	Data Collection Period	
	August 2011 & September 2011	October 2014, November 2014 & December 2014
Internet, Technology ↑	34 %	39 %
Education ↑	27 %	28 %
Entertainment ↓	23 %	17 %

Table 37: Comparison of two studies: lexical borrowing topics

In Graph 44, lexical borrowing topics with respect to age can be seen. As can be observed, high school students make up 50% of the lexical borrowings related to emotions, 44% of the lexical borrowings related to sports, 36% of the lexical borrowings related to entertainment, 30% of the lexical borrowings related to internet-technology, 22% of the lexical borrowings related to daily life found in the data. University students make up 88% of the lexical borrowings related to education, 56% of the lexical borrowings related to sports, 33% of the lexical borrowings related to politics-news, 25% of the lexical borrowings related to entertainment, 23% of the lexical borrowings related to the internet and technology and finally 17% of the lexical borrowings related to daily life.



Graph 44: Lexical borrowing topics and age

Graduates is the only age group that borrowed words related to business and work so they make up 100% of the lexical borrowings related to business-work found in the data. Sixty-seven percent of the lexical borrowings related to politics and news, 50% of the lexical borrowings



related to emotions, 39% of the lexical borrowings related to daily life and entertainment, 34% of the lexical borrowings related to internet-technology, and 6% of the lexical borrowings related to education belong to graduates.

The data in Graph 44 indicate that middle-aged adults make up 22% of the lexical borrowings related to daily life, 13% of the lexical borrowings related to the internet and technology and 6% of the lexical borrowings related to education. In Table 38, the correlations found between each topic and age are given. Relatively weak correlations are found between age and lexical borrowings related to business-work, daily life, education, emotions and politics-news. These correlations suggest that a weak link may exist between age and these lexical borrowing topics.

<b>Lexical Borrowing Topics</b>	<b>Correlations</b>
Business-Work	0.11
Daily life	0.21
Education	-0.34
Emotions	-0.43
Entertainment	-0.77
Internet-Technology	-0.63
Politics-News	-0.08
Sports	-0.83

Table 38: Correlations between lexical borrowing topics and age

It can be seen that quite strong correlations are found between entertainment-, internet-technology- and sports- related lexical borrowings and age. It can therefore be assumed that as the age of the participants increases, the number of lexical borrowings that are related to internet-technology, entertainment and sports decreases.

#### *4.5.1.2 Lexical Borrowing Topics & Gender*

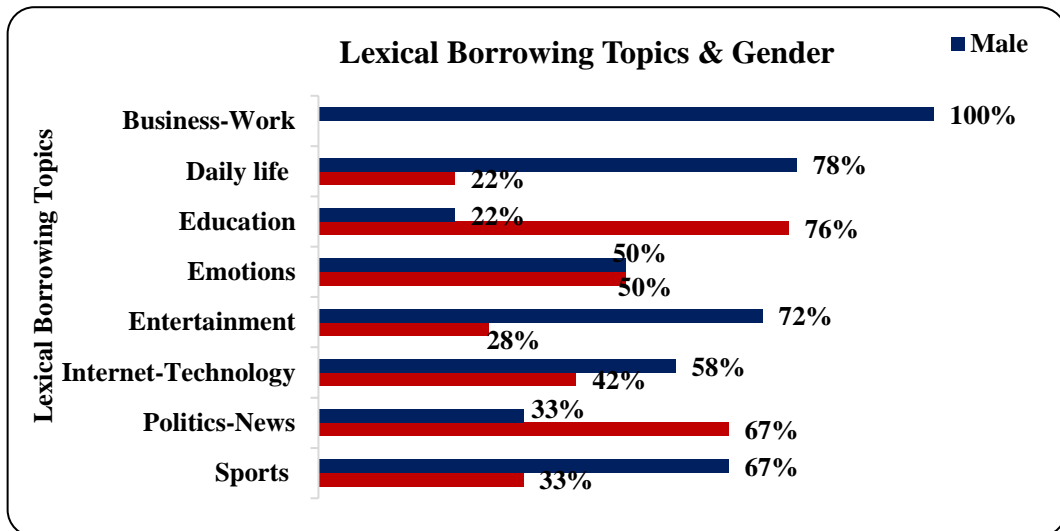
Table 39 presents the percentages of lexical borrowing topics with respect to gender. As can be seen, 54% of the lexical borrowings of females are related to internet and technology whereas

50% of the lexical borrowings of males are related to the internet and technology. Moreover, 18% of the lexical borrowings of female participants are related to education, followed by entertainment with 14% and daily life with 6%. On the other hand, 24% of the lexical borrowings of male participants are related to entertainment, followed by daily life with 13% and sports with 6%.

<b>Lexical Borrowing Topics</b>	<b>Female</b>	<b>Male</b>
Business-Work	0%	2%
Daily life	6%	13%
Education	18%	4%
Emotions	1%	1%
Entertainment	14%	24%
Internet-Technology	54%	50%
Politics-News	3%	1%
Sports	4%	6%
Total	100%	100%

Table 39: Lexical borrowing topics and gender

In Graph 45, lexical borrowing topics with respect to gender can be seen. The graph shows that males borrowed more words related to business-work, daily life, entertainment, internet and technology and sports than females whereas females borrowed more words related to education and politics-news more than males. Female participants did not borrow any words related to business and work. A possible explanation for males borrowing more words from English related to business-work, daily life, entertainment, internet and technology and sports might be because of their connections in Twitter or they might want to show their online glocal identities by borrowing words from English about these topics. Similarly, the reason why females borrowed more words than males related to education and politics-news could be because they want to show their online identities while writing about these topics.



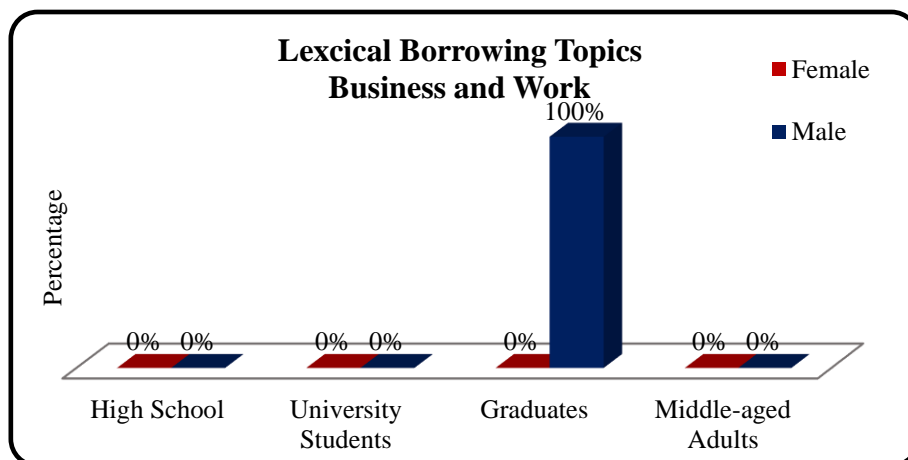
Graph 45: Lexical borrowing topics and gender

#### 4.5.1.3 Lexical Borrowing Topics: Age & Gender

In this section, lexical borrowing topics will be analysed with respect to two variables, age and gender together and results will be presented with the examples gathered from the data.

##### *Business and Work*

As can be seen from the Graph 46 only male graduates borrowed English words while they were posting about business and work.



Graph 46: Lexical borrowing topics: business and work

Turkish graduates borrowed words *creative* and *marketing* while communicating online. Examples (48) and (49) below illustrate lexical borrowing about business and work:

(48) Biri de çıkıp, abi sen *creative* ajanssin dememiş.

Correct form: Biri de çıkıp, abi sen *creative* ajanssin dememiş.

Translation: No one would dare to say that you are a *creative* agency.

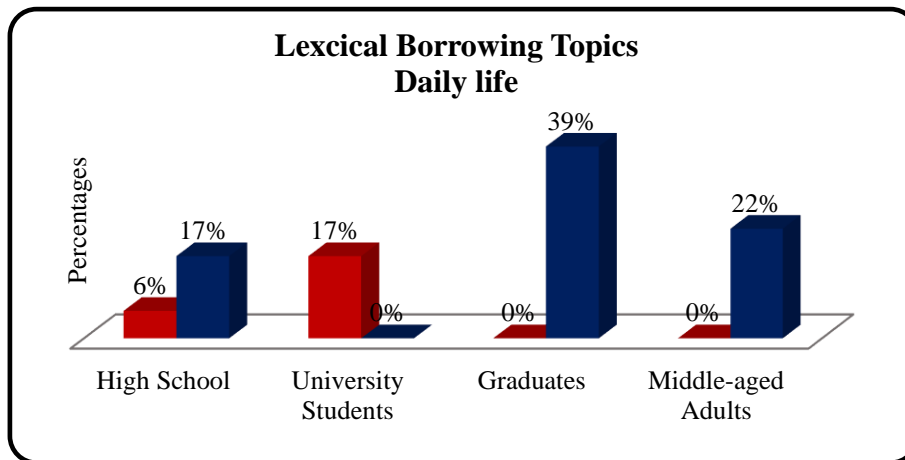
(49) Dijital pazarlama, markalaşma ve *marketing* ile ilgili kitap önerisi olan var mı?

Correct form: Dijital pazarlama, markalaşma ve *marketing* ile ilgili kitap önerisi olan var mı?

Translation: Does anyone have book recommendation about digital *marketing*, branding and marketing?

### Daily Life Activities

The percentages of daily life-related lexical borrowings for each group can be seen in Graph 47. Male graduates make up 39% of the lexical borrowings related to daily life and male middle-aged adults make up 22% whereas female graduates and middle-aged adults did not borrow any words related to daily life. Moreover, among university students, females borrowed words related to daily life with 17% whereas males did not borrow any words. The words borrowed from English in this category are: *bye, café, cousin, hello, hotdog, inside, item, macchiato, max, milkshake, money, out-in, party, piercing, puzzle, shapes, slim, stop, top, tower, ugly, up*.



Graph 47: Lexical borrowing topics: daily life

Examples of lexical borrowing about daily life (50) – (52) are given below:

(50) Açıktıysanız işte size bir *hotdog* :-)

Correct form: Acıktıysanız işte size bir *hotdog*

Translation: If you are hungry, here is a *hotdog*

(51) Özlediğim şeyler *top1*: taharet musluğu.

Correct form: Özlediğim şeyler *top1*: taharet musluğu.

Translation: Things I miss *top 1*: bidet faucet

(52) Sigara olmayınca annemin *slimlerine* dalıyorum

Correct form: Sigara olmayınca annemin *ince sigaralarına* dalıyorum

Translation: When there is no tobacco, I take my mums *slims*

### *Education*

In Graph 48, percentages of lexical borrowing related to education with respect to age and gender are presented. Among university students and graduates, female participants borrowed more words related to education than male participants whereas high school students, male graduates and female middle-aged adults did not borrow any words related to education. Turkish native speakers borrowed the words *analytics, assignment, attendance, chapter, checklist, curve, deadline, edit, essay, final, grammar, humid, micro, mist, moist, ranking, quiz, saturation, shuttle, submit, subliminal and wet* from English in their posts about education. Examples (53) – (55) below illustrate lexical borrowing from English about education:

(53) Sınav sorusu hazırlayacağım, kitap *edit* edeceğim. Görüşmek üzere :-)

Correct form: Sınav sorusu hazırlayacağım, kitap *düzenleyeceğim*. Görüşmek üzere :-)

Translation: I will prepare exam questions, I will *edit* the book. See you.

(54) *Essay* yazmaktan daha doğrusu yazamamaktan ÇOK sıkıldım.

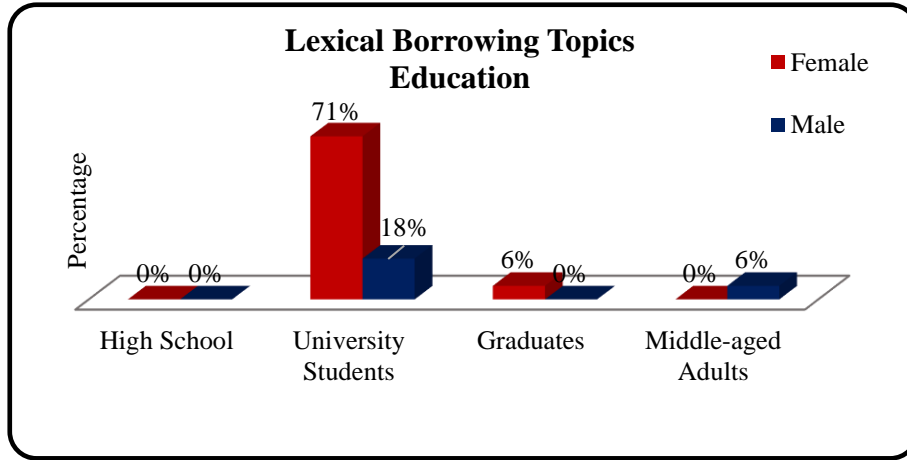
Correct form: *Makale* yazmaktan daha doğrusu yazamamaktan çok sıkıldım.

Translation: I am very bored of writing actually not being able to write an *essay*.

(55) *Curveden* 😊 26 😊 puan 😊 düşük 😊 almak 😊 mı 😊 süper 😊

Correct form: *Çan eğrisinden* 26 puan düşük almak mı süper

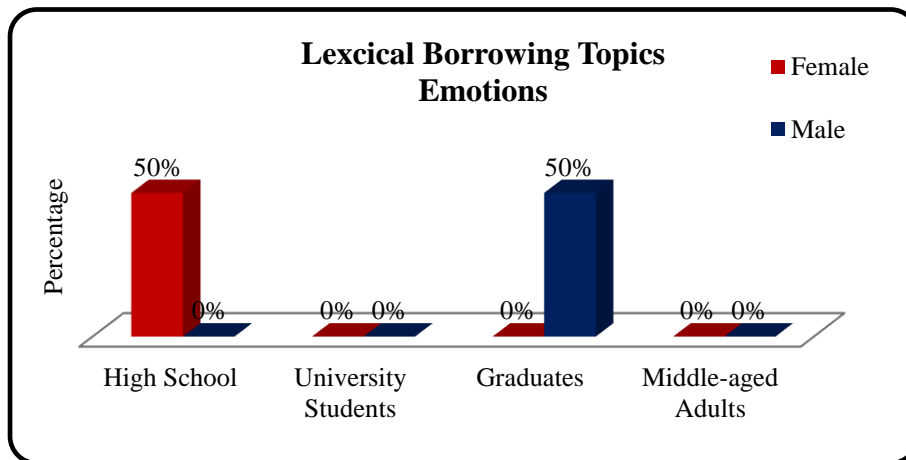
Translation: Getting 26 points less than the *curve*, super.



Graph 48: Lexical borrowing topics: education

### Emotions

In Graph 49, the percentages of borrowed words related to emotions with respect to age and gender can be seen. Surprisingly, only female high school students and male graduates in the study borrowed words from English while expressing their emotions. University students and middle-aged adults did not borrow any emotion words from English words. Nonetheless, further research should be conducted to find out why Turkish people borrow lexical items while expressing their emotions.



Graph 49: Lexical borrowing topics: emotions

In this category, words borrowed from English are: *best, cool, sorry and why*. In the following examples (56), (57) and (58), the lexical borrowing that takes place while expressing emotions can be seen:

(56) Ulan Hindistan'in bile uzaya ciktiği dünyada ben neden Turkiye'de dogdum! Neden allahim neden neden *why*???

Correct form: Ulan Hindistan'in bile uzaya çıktıği dünyada ben neden Türkiye'de doğdum! Neden Allahım neden neden *neden*???

Translation: *Why* why why on earth I was born in Turkey where even India has gone into space?

(57) En *best* kuzen ♥

Correct form: En iyi kuzen

Translation: The *best* cousin

(58) ömer şuan sana eziyet edesim geliyo *bro why* ?

Correct form: Ömer şuan sana eziyet edesim geliyor kardeşim *neden*?

Translation: Ömer now I feel like torturing you *bro why*?

### *Entertainment*

Graph 50 presents the percentages of lexical borrowing related to entertainment. It can be seen that middle-aged adults did not borrow any English words related to entertainment whereas male high school students make up 33% of the lexical borrowings related to entertainment. Lexical borrowings related to entertainment are *best, Christmas, club, concert, cool, doggy, Halloween, hobbit, hype, inside, macchiato, media, milkshake, money, night, party, playback, show, star, track, top* and *twerk*. Examples (59) – (61) illustrate lexical borrowing from English about entertainment:

(59) En sevdiğim sarki *Track* 12

Correct form: En sevdiğim şarki 12. *Parka*

Translation: My favourite song is *track* 12

(60) tabikide en *best* filmim Esaretin Bedeli

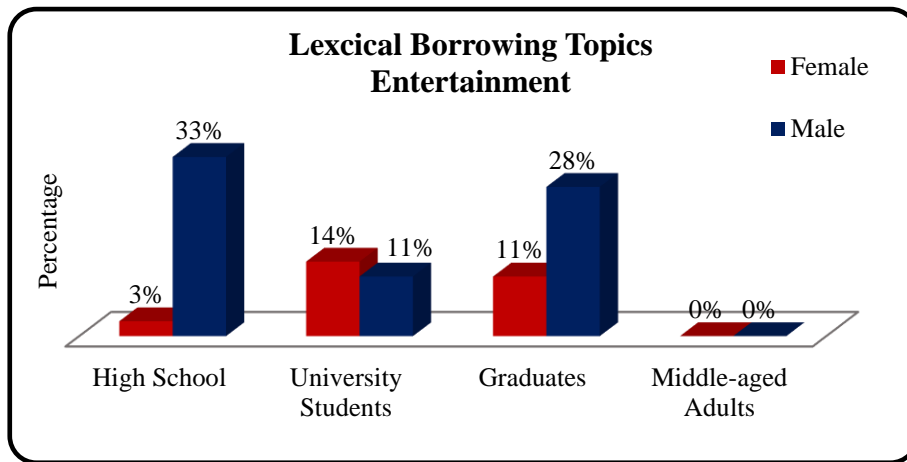
Correct form: Tabiki de *en iyi* film Esaretin Bedeli

Translation: Of course, my *best* movie is Esaretin Bedeli

(61) *Halloween* diye burka giyen kadınları ninja zannetmekten vazgeçmem gerek bence

Correct form: *Cadılar bayramı* diye burka giyen kadınları ninja zannetmekten vazgeçmem gerek bence

Translation: I think I should stop taking woman wearing burka for ninja in *Halloween*

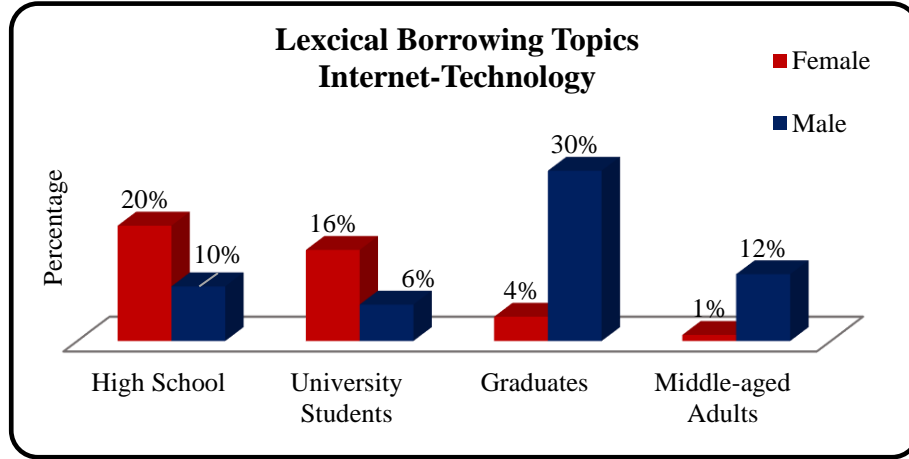


Graph 50: Lexical borrowing topics: entertainment

### *Internet and Technology*

Graph 51 presents the percentages of lexical borrowings related to the internet and technology. As can be observed, among high school and university students, females borrowed more English words related to the internet and technology whereas among graduates and middle-aged adults, males borrowed more English words related to the internet and technology. Words borrowed from English related to the internet and technology are: *affordance, armor, backlink, blog, blogger, caps, domain, email, emoji, enter, forward, follow, hack, hacker, grave, launchpad, level, link, mail, manuel, map, mention, mobile, mute, official, offline, online, post, prototype, recall, retweet, scope, selfie, social, support, spam, snapchat, swarm, timeline, tool, unfollow, web* and *whiteout*. Although some of these words now have Turkish equivalents, participants preferred using English words while communicating online.





Graph 51: Lexical borrowing topics: internet and technology

Below examples (62) – (64) of lexical borrowing related to internet and technology can be seen:

(62) Bu da kordon *selfi*emiz.

Correct form: Bu da kordon *özçekimimiz*.

Translation: This is our *selfie* along the waterfront.

(63) Keşke instagramda da *mute* özelliği olsa :))

Correct form: Keşke instagramda da *sesini kısma* özelliği olsa :))

Translation: I wish instagram had a *mute* feature.

(64) Dünyanın en iyi hesabını *spam*lamışlar :(

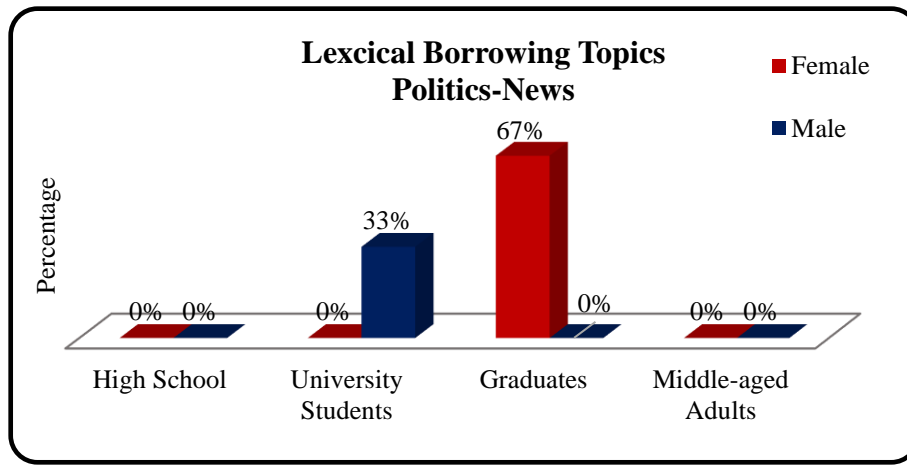
Correct form: Dünyanın en iyi hesabına *istenmeyen e-posta göndermişler*.

Translation: They *spammed* the best account in the world

#### *Politics, News, Religion and Social Events*

In Graph 52, percentages of lexical borrowings related to politics, news, religion and social events with respect to age and gender can be seen. A glance at the graphs reveals that high school students and middle-aged adults did not borrow any English words when they were writing about politics, news and social events. Male university students make up 33% of the lexical borrowings related to politics, news, religion and social events whereas female graduates

make up 67%. Words taken from English related to politics, news, religion and social events are: *gay, fix, homophobic, nigger, okay, point, rape, social* and *stalker*.



Graph 52: Lexical borrowing topics: politics, news, religion and social events

Examples (65) and (66) show lexical borrowing about politics, news, religion and social events:

(65) Taksimde bir kestaneciler birde toma *fix* hep....

Correct form: Taksim’de bir kestaneciler bir de toma *fix* hep....

Translation: In Taksim chestnut sellers and TOMA (Intervention Vehicle against Social Incidents) are *fix*

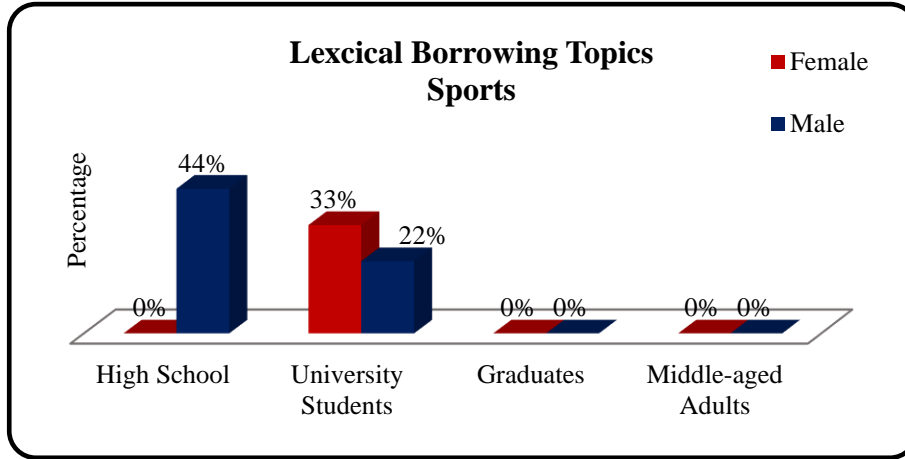
(66) Bizim ulkede *homophobic* cay bile var daha nolsun

Correct form: Bizim ülkede *homofobik* çay bile var daha ne olsun

Translation: There is even *homophobic* tea in our country

### *Sports*

Graph 53 shows the percentages of lexical borrowings related to sports with respect to age and gender. As can be observed, graduates and middle-aged adults did not borrow any English words related to sports. Moreover, among high school and university students, male participants borrowed English words related to sports more than females. Words borrowed from English related to sports are *basketball, block, respect, show, squat, quidditch* and *wingsuit*.



Graph 53: Lexical borrowing topics: sports

Examples (67) – (69) illustrate lexical borrowing from English about sports:

- (67) Çilek bile *squat* yapıyor sen neden yapamayasın tatlı kış  
 Correct form: Çilek bile *squat* yapıyor sen neden yapamayasın tatlı kız  
 Translation: Even Çilek can *squat*, why cannot you sweet girl
- (68) Sandersin *blocklarından* sonra sırplar bunalıma girdi 😊😊😊😊  
 Correct form: Sanders'in *blocklarından* sonra Sırplar bunalıma girdi  
 Translation: After the Sanders' *blocks*, the Serbs were depressed
- (69) *wingsuit* olayı gelinebilecek en iyi nokta eğlencede bence  
 Correct form: *Wingsuit* olayı gelinebilecek en iyi nokta eğlencede bence  
 Translation: I think the *wingsuit* is the best thing for fun

#### 4.5.1.4 Summary: Lexical Borrowing Topics

In this subsection, lexical borrowing topics have been analysed with respect to age and gender. Table 40 presents all the words borrowed from English with respect to topics. The results have shown that Turkish people in the study borrow English words mainly about the internet and technology and daily life, followed by entertainment and education. The internet and

technology is the main provider of English words in Turkey since more than half of the borrowed words from English are related to the internet and technology.

<b>Lexical Borrowing Topics</b>	<b>List of Borrowed Words</b>
Business-Work	Creative, Marketing
Daily life	Bye, Café, Cousin, Hello, Hotdog, Inside, Item, Macchiato, Max, Milkshake, Money, Out-In, Party, Piercing, Puzzle, Shapes, Slim, Stop, Top, Tower, Ugly, Up
Education	Analytics, Assignment, Attendance, Chapter, Checklist, Curve, Deadline, Edit, Essay, Final, Grammar, Humid, Micro, Mist, Moist, Ranking, Quiz, Saturation, Shuttle, Submit, Subliminal, Wet
Emotions	Best, Cool, Sorry, Why
Entertainment	Best, Christmas, Club, Concert, Cool, Doggy, Halloween, Hobbit, Hype, Inside, Macchiato, Media, Milkshake, Money, Night, Party, Playback, Show, Star, Track, Top, Twerk
Internet-Technology	Affordance, Armor, Backlink, Blog, Blogger, Caps, Domain, Email, Emoji, Enter, Forward, Follow, Hack, Hacker, Grave, Launchpad, Level, Link, Mail, Manuel, Map, Mention, Mobile, Mute, Official, Offline, Online, Post, Prototype, Recall, Retweet, Scope, Selfie, Social, Support, Spam, Snapchat, Swarm, Timeline, Tool, Unfollow, Web, Whiteout,
Politics, News, Religion and Social Events	Gay, Fix, Homophobic, Nigger, Okay, Point, Rape, Social, Stalker
Sports	Basketball, Block, Respect, Show, Squat, Quidditch, Wingsuit,

Table 40: List of lexical borrowings with respect to topics

Analysing borrowed English words with respect to age revealed that only middle-aged adults borrowed words related to daily life, internet-technology and education where graduates borrowed words related to all the topics. When the words borrowed from English are analysed with respect to gender, it has been found that males borrow more words related to business-work, daily life, entertainment, the internet and technology and sports than females, whereas females borrow more words related to education and politics-news.

Lexical Borrowing Topics	High School Students		University Students		Graduates		Middle-aged Adults		Total
	Female	Male	Female	Male	Female	Male	Female	Male	
Business-Work	-	-	-	-	-	100%	-	-	100%
Daily life	6%	17%	17%	-	-	39%	-	22%	100%
Education	-	-	71%	18%	6%	-	-	6%	100%
Emotions	50%	-	-	-	-	50%	-	-	100%
Entertainment	3%	33%	14%	11%	11%	28%	-	-	100%
Internet-Technology	20%	10%	16%	6%	4%	30%	1%	12%	100%
Politics-News	-	-	-	33%	67%	-	-	-	100%
Sports	-	44%	33%	22%	-	-	-	-	100%

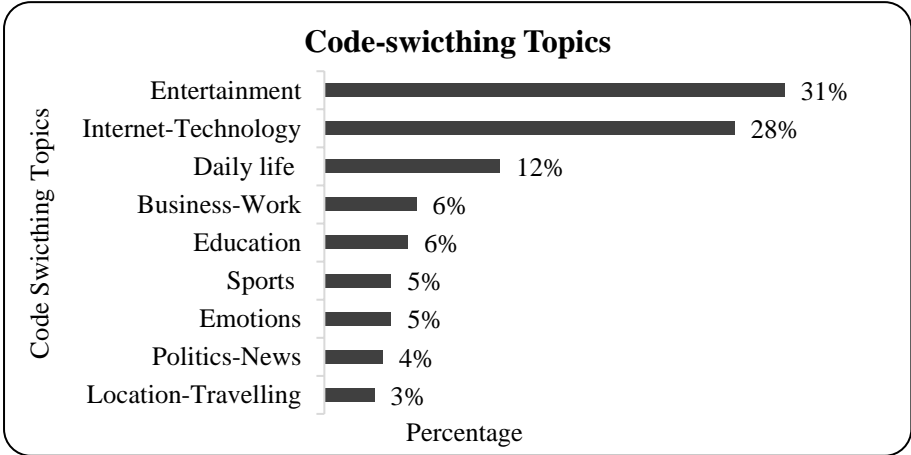
Table 41: Lexical borrowing topics: age and gender

The overall results of lexical borrowing topics with respect to age and gender are summarised in Table 41. The table is revealing in several ways. First, the results show that borrowings related to business-work, daily life, emotions, entertainment and internet-technology reach a peak with male graduates. Second, only internet and technology-related words are borrowed by each group which probably indicates the lexical gap of internet and technology related words in the Turkish language for each group. Finally, entertainment-related words were borrowed by high school students, university students and graduates but middle-aged adults did not borrow any words related to entertainment. It is likely that entertainment is not one of the routes of dissemination of English words among middle-aged adults which might indicate the generation gap. Furthermore, correlations showed that as the age of the participants increases, the amount of lexical borrowings related to internet-technology, entertainment and sports decreases.

#### 4.5.2 Code-switching Topics

In this section, CS topics will be analysed with respect to age and gender, and for each topic examples from the gathered data will be presented. CS found in the data are categorised in 9

different topics; business and work, daily life, education, emotions, entertainment, the internet and technology, location and travelling, politics and news and sports. Graph 54 shows the percentages of CS topics for Turkish people in the research. Turkish people code-switch mostly when they are writing about entertainment with 31%, followed by the internet and technology with 28%, daily life with 12%, business-work and education with 6%, sports and emotions with 5%, politics and news with 4% and finally location and travelling with 3%.



Graph 54: CS topics

Kelly (2009) analysed the topics on Twitter and found that 40% of the tweets were pointless babbles like "I'm eating a sandwich". In this research, daily life-related CS are pointless babbles and participants code-switched to English with 12% when they were writing about daily life activities. Daily life-related CS will be analysed deeply in the following section 4.5.2.3.

It is possible to conclude that Turkish native speakers in this study code-switch to English extensively while they are writing about entertainment and internet-technology. These results indicate that Turkish people participated in this study are exposed to English language by series, movies, songs, and computer-mediated communication. Entertainment-related CS which make up the highest percentage (31%) of the CS found in the data, might indicate the tendency in Turkish society to culturally imitate English speaking countries that are socially more powerful.

#### 4.5.2.1 Code-switching Topics & Age

In this section, CS topics will be analysed with respect to age. The data in Table 42 show the percentages of CS topics for each age group.

<b>Code-switching Topics</b>	<b>High School Students</b>	<b>University Students</b>	<b>Graduates</b>	<b>Middle-Aged Adults</b>
Business-Work	0%	0%	13%	0%
Daily life	23%	10%	8%	20%
Education	0%	13%	1%	60%
Emotions	6%	4%	5%	0%
Entertainment	31%	33%	31%	20%
Internet-Technology	40%	23%	28%	0%
Location-Travelling	0%	6%	3%	0%
Politics-News	0%	0%	8%	0%
Sports	0%	10%	3%	0%
Total	100%	100%	100%	100%

Table 42: CS topics and age

Forty percent of the code-switches found in the high school students' posts are related to the internet and technology, followed by entertainment with 31%, daily life with 23% and finally emotions with 6%. High school students did not code-switch when they were writing about sports, politics, travelling, education or business. These values correlate fairly well with Dewaele's research (2001) that found out that second language learners code-switch more in informal than in formal interviews. In this research, high school students did not code-switch when they were tweeting about formal topics like business, education and politics-news but they code-switched to English when writing about informal topics like entertainment and daily life.

It can be clearly seen from Table 43 that university students code-switched mainly about entertainment with 33% followed by the internet and technology with 23%, education with 13%, sports and daily life with 10%, location and travelling with 6% and emotions with 4%. They did not code-switch when they were writing about politics and business and work. The

results of this research are in line with the previous research conducted in 2011 among Turkish university students (Tastan, 2012). The results of the two studies are compared in Table 43. It can be observed that percentages of CS related to entertainment and education has fallen, whereas percentages of CS related to the internet and technology has increased. The reason for these changes might be the period when the data was gathered.

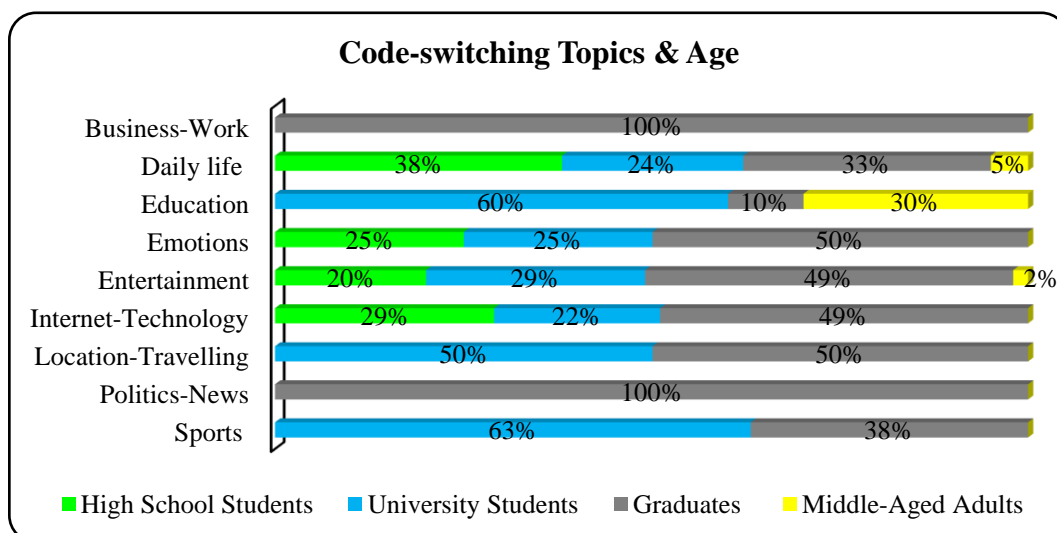
University Students Code-switching Topics	Data Collection Period	
	August 2011 & September 2011	October 2014, November 2014 & December 2014
Entertainment ↓	38 %	33 %
Internet, Technology ↑	20 %	23 %
Education ↓	15 %	13 %

Table 43: Comparison of two studies: CS topics

Graduates mainly code-switched to English when they were writing posts about entertainment with 31% and the internet and technology with 28%. Graduates code-switched when they were writing tweets about business and work with 13%, daily life and politics with 8%, emotions with 5%, location and sports with 3%, and finally education with 1%. As can be seen from the Table 42, graduates are the only age group that code-switched to English for each topic. Middle-aged adults code-switched when they were writing posts about education with 60%, entertainment with 20% and daily life with 20%. However, they did not CS when they were writing tweets about sports, politics, location, the internet and technology, emotions and business. The reason for middle-aged adults to code-switch when they were writing about education could be because some of the participants are teachers at schools where English is used as the medium of instruction.

The data in graph 55 indicate that high school students make up 38% of the CS related to daily life, 29% of the CS related to the internet and technology, 25% of the CS related to emotions and finally 20% of the CS related to entertainment. Moreover, education and sports-related CS reaches a peak with university students.





Graph 55: CS topics and age

All the age groups code-switched to English and had daily life- and entertainment- related CS in their posts whereas graduates are the only age group that code-switched to English when writing posts about business and politics-news. The reason why graduates code-switch while writing about business could be explained with audience design talking. As most of the graduates in the study work in international companies, they might be adjusting their speech to address a different audience to show their online glocal identities and identify themselves with a particular group. Another reason for graduates to code-switch to English could be explained with language facility. When participants first learn an expression related to business in English, they might prefer using the English equivalent instead of Turkish because it is easier.

Table 44 presents the correlations between CS topics and age. As can be observed, relatively weak correlations were found in each topic except daily life-related CS with a strong negative correlation of -0.83. This would appear to indicate that the percentages of CS related to daily life decrease as the age of the participants increases. Moreover, the data in Table 44 demonstrate that there are weak links between age and CS relating to business-work, education, emotions, entertainment, location-travelling, politics-news, and sports.

<b>Code-switching Topics</b>	<b>Correlations</b>
Business-Work	0.11
Daily life	-0.83
Education	0.07
Emotions	-0.47
Entertainment	-0.41
Internet-Technology	-0.51
Location-Travelling	-0.24
Politics-News	0.11
Sports	-0.33

Table 44: Correlations between CS topics and age

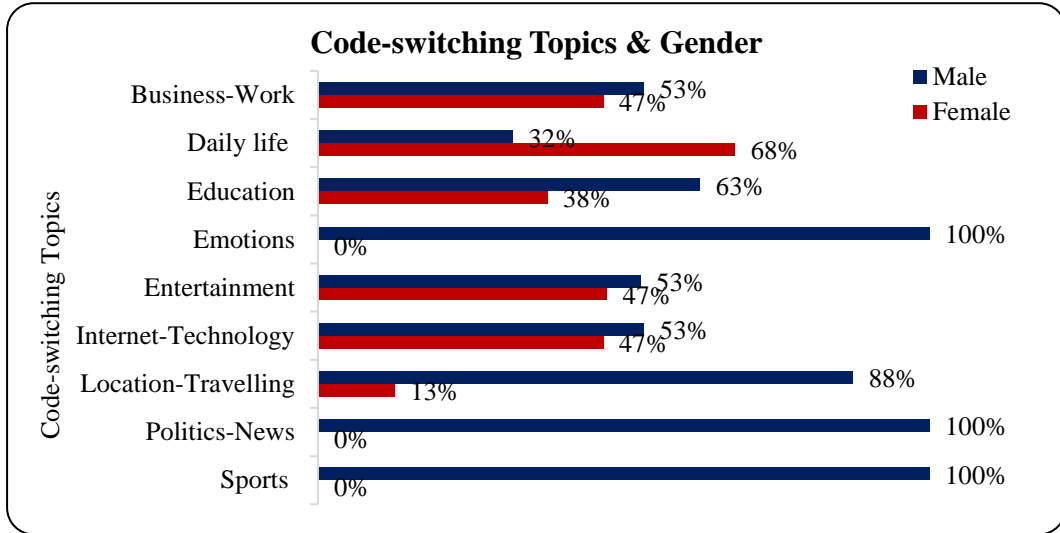
#### 4.5.2.2 Code-switching Topics & Gender

In this section, CS topics will be analysed with respect to gender. Table 45 presents the percentages of CS for female and male participants separately for each topic. Forty four percent of the CS found in the posts of female participants are related to entertainment, followed by daily life with 25%, business-work and internet-technology with 12%, education with 5% and finally location with 2%. Female participants did not code-switch to English when they were writing posts related to emotions, politics-news and sports. In contrast to females, male participants CS to English for each topic. The reason why males code-switch to English for each topic might be because they want to show their online glocal identities when writing about each topic. As can be seen clearly from the table, 36% of the CS of male participants are related to internet-technology, followed by entertainment with 25%, sports and emotions with 7%, politics-news and education with 6%, daily life with 5%, location-travelling with 4%, and finally business-work with 3%.

<b>Code-switching Topics</b>	<b>Female</b>	<b>Male</b>
Business-Work	12%	3%
Daily life	25%	5%
Education	5%	6%
Emotions	0%	7%
Entertainment	44%	25%
Internet-Technology	12%	36%
Location-Travelling	2%	4%
Politics-News	0%	6%
Sports	0%	7%
Total	100%	100%

Table 45: CS topics and gender

In Graph 56, percentages of CS topics for female and male participants are presented. The results, indicate that female participants code-switch more than male participants only when they write about daily life whereas male participants code-switch to English more than female participants when they write about business-work, education, emotions, entertainment, the internet and technology, travelling, politics-news and sports. Unexpectedly, in contradiction with earlier findings, in this research it is found that only male participants code-switch to English while expressing their emotions. Males code-switched to English when they were expressing their emotions with 7%, which makes up 100% of the CS related to emotions in the data. Previous results reported in the literature show that females say ‘I love you’ more than men in SMS (Barnett, 2012). Even though these results are in contradiction with previous studies, the reason why males express their emotions in English rather than in Turkish might be because they want to get attention and/or show their online glocal identities when they are expressing themselves.



Graph 56: CS topics and gender

#### 4.5.2.3 Code-switching Topics: Age & Gender

In this section, CS topics will be analysed with respect to age and gender. Results for each topic will be presented in percentages with bar graphs and examples will be given from the gathered data.

##### *Business and Work*

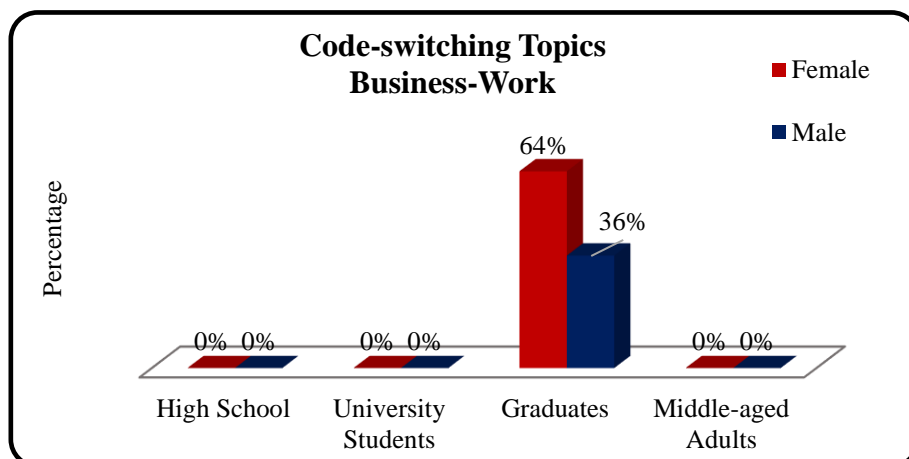
As can be seen from Graph 57, only graduates code-switched while writing about business and work. Female graduates make up 64% of the CS related to business and work whereas male graduates make up 36%. Examples (70) and (71) below illustrate CS about business and work:

(70) *Investor Meetup* yine dolu dolu ve keyifliydi. Tebrikler

Translation: The *Investor Meetup* was full and enjoyable again. Congratulations.

(71) Dünyaca ünlü bir *trend forecaster*la *interview* yaptıktan sonra ki mutluluk! <3

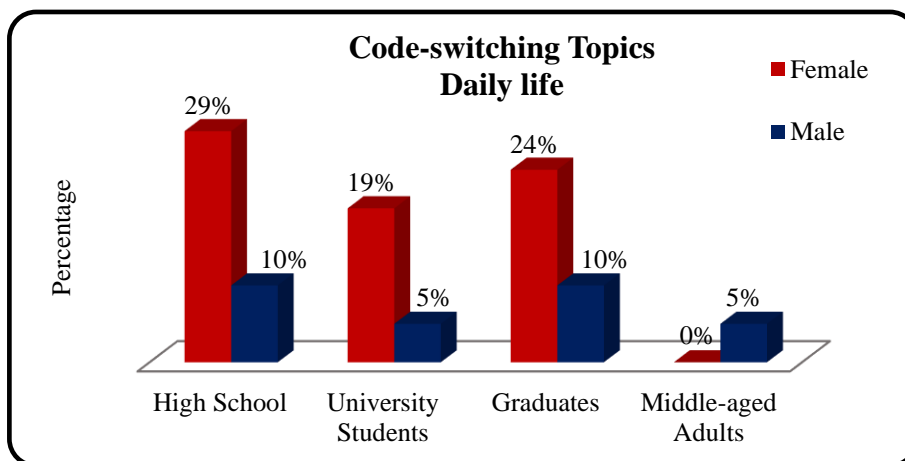
Translation: Happiness after *interviewing a world-famous trend forecaster!*



Graph 57: CS topics: business and work

*Daily Life Activities*

In Graph 58, CS related to daily life for each age group and gender can be seen. Females aged between 14 and 44 – high school students, university students and graduates – code-switched more about daily life than males aged between 14 and 44. Middle-aged female participants did not code-switch about daily life whereas middle aged male adults make up 5% of the daily life related CS.



Graph 58: CS topics: daily life

Peer Analytics (Kelly, 2009) analysed topics on Twitter and found that 40% of the tweets were pointless babbles like "I'm eating a sandwich". In the present research, daily life related tweets can also be categorised as pointless babbles. In the following examples (72) – (75), daily life-related CS can be seen:

(72) Elbisem yuzunden topuklu giycegime gore gokdelen *is coming*

Translation: I am wearing high heels because of my dress so skyscraper *is coming*.

(73) Anneanneme *your ego is my lego baby* dedim ne diyon sen be dedi 😊😊😊

Translation: I told my granny *your ego is my lego baby* and she said what are you talking about.

(74) Güzel, modern ürünler yapamıyoruz bari reklamımız "*dress normal*" olsun nasıl fikir?

Translation: We cannot make beautiful, modern products, at least our advertisement is "*dress normal*" what about that?

(75) Nası *good morning* olayım ben ??

Translation: How can I have a *good morning*?

### *Education*

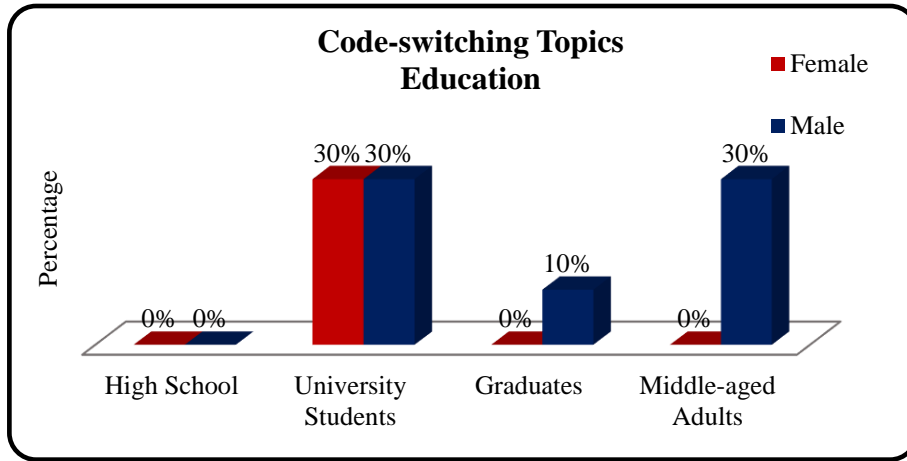
The data in Graph 59 indicates CS percentages related to education for each group. High school students did not code-switch when they were writing about education which might indicate that second language learners code-switch less in formal topics (Dewaele J. M., 2001). However, female and male university students code-switched to English with 30% each when they wrote about education. In graduates, only male participants code-switched to English with 10%, whereas female graduates did not have any CS related to education. Moreover, among middle-aged adults, only male participants code-switched about education with 30%. The reason for male middle-aged participants to code-switch about education might be because some of the participants are teachers at universities where English is the medium of instruction. Examples (76) and (77) illustrate CS about education:

(76) tamam canım bölümün hukuk degil *faculty of law* kimse hukuk demedi sakın ol *faculty of law ow yeah that's cool*

Translation: Ok my dear your department is *faculty of law* not law, nobody said law.  
*faculty of law ow yeah that's cool*

(77) *university math* dersi vermek için gerekli şartlar; thomas calculus kitabı ve kitaptan not çıkartabilecek düzeyde zeka

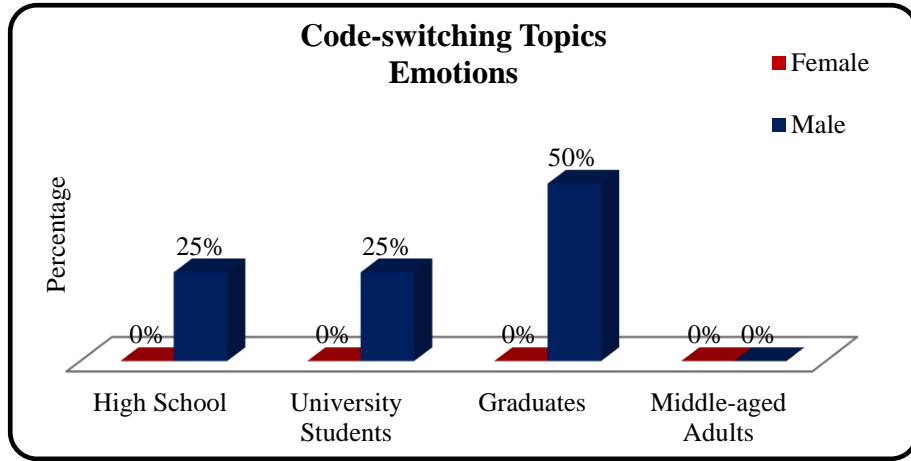
Translation: Conditions for giving *university math* lessons; Thomas calculus book and intelligence to prepare notes from the book



Graph 59: CS topics: education

### *Emotions*

Graph 60 shows the percentages of CS related to emotions with respect to age and gender. Surprisingly, as can be seen from the following graph, only males code-switched to English when they were expressing their feelings whereas females did not code-switch. Male high school and university students code-switched to English with 25%, and male graduates with 50%. However, middle-aged adults did not code-switch to English to express their feelings. In other words, from the data presented in the graph 60, it is possible to say that only males aged between 14 and 44 code-switch to English to express their emotions. More research needs to be undertaken to find out why Turkish people code-switch to English while they are expressing their emotions.



Graph 60: CS topics: emotions

Examples (78) – (82) illustrate CS when participants are expressing their emotions online:

(78) Kendini *giga pudding* gibi hissetmek  
Translation: Feeling like *giga pudding*

(79) Vallahi *true love* be kardeşim  
Translation: Really *true love* bro

(80) Ay burclarına inanmıyorum ama "Yaban Kazı" tam olarak ben. *I love* kızıldertililer.  
Translation: I do not believe in moon horoscope, but "Wild Digger" is exactly me. *I love* Indians.

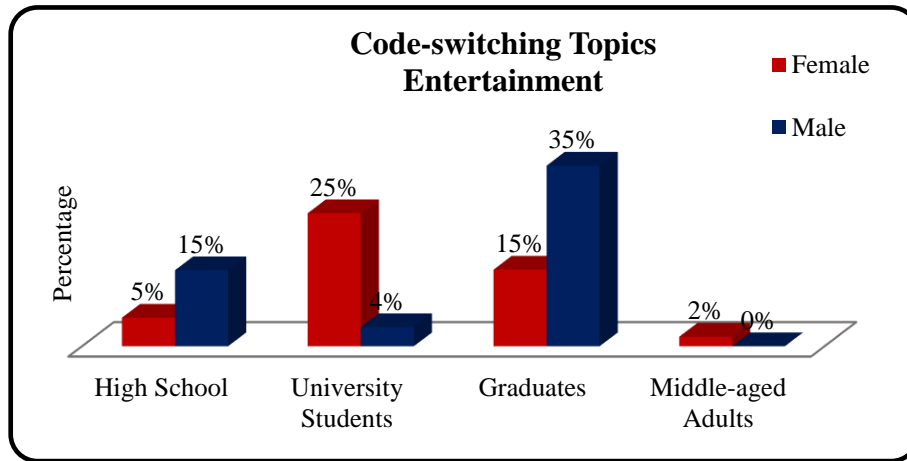
(81) Teraslı Fransız mimarisi bizim yalılarımızı da boğaz manzaramızı da donunda sallar, *im sorry*.  
Translation: French architecture with terrace beats our waterfront houses and Bosphorus sights, *I'm sorry*.

(82) Bayram *after party rocks!* Tabii ben göt yine tavan çünkü burası Saray and *i feel like a star*. *Thanx all my fans adgjssjkl*  
Translation: *Party after* festival *rocks!* Of course, I'm showing off, because it is a palace and *I feel like a star*. *Thanx all my fans adgjssjkl*



## Entertainment

In Graph 61, CS related to entertainment for each age group and gender can be seen. In this research, all the participants except middle-aged male adults code-switched to English when they were writing about entertainment. Furthermore, female middle-aged adults make up 2% of the code-switches about entertainment whereas middle-aged male adults did not code-switch when they were writing about entertainment.



Graph 61: CS topics: entertainment

As can be seen from the examples (83) – (86) below, most of the CS about entertainment are related to songs, American series, movies and American culture.

(83) *Unchain my heart* diyen efsanevi Joe Cocker hayatını kaybetti. İyi bir ses ve müzisyendi

Translation: The legendary Joe Cocker who said *Unchain my heart* passed away. A good voice and musician.

(84) 2015 yılının sevgi mutluluk ve huzur getirmesini dilerim :) ;) *Happy happy happy new year :)*

Translation: I wish that 2015 will bring love, happiness and peace :) ;) *Happy happy happy new year :)*

(85) *Nat king cole-autumn leaves*, her gece yatmadan bir doz dinleyin...

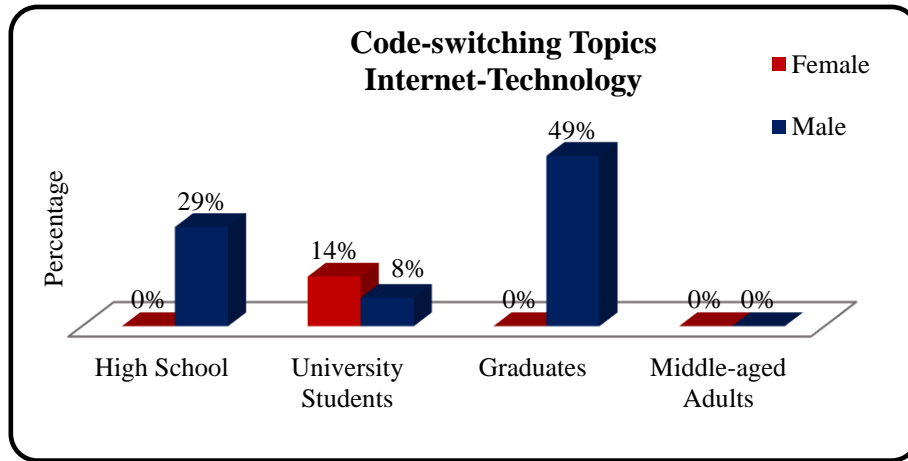
Translation: *Nat king cole-autumn leaves*, every night before bedtime listen to a dose ...

(86) *Get Lucky* dansimi gorseniz, benimle tanismamis olmayi dilerdiniz.

Translation: If you see my *Get Lucky* dance, you would wish that you had not met with me.

### *Internet and Technology*

Graph 62 shows the percentages of CS related to internet and technology with respect to age and gender. As can be seen from the graph, middle-aged adults did not code-switch to English when they were writing about the internet and technology. Moreover, male high school participants make up 29% of the CS related to the internet and technology whereas female high school students did not code-switch. Among university students, female participants code-switched about the internet and technology (14%) more than male participants (8%). There is significant difference between male and female graduates: as male graduates make up almost half of the CS related to the internet and technology (49%) whereas female participants never code-switched about the internet and technology.



Graph 62: CS topics: Internet and technology

Examples (87) – (89) of CS about internet and technology can be seen below:

(87) önceki tweet'teki @setr'nin yeni site linki 12 click almış. *big brothers are tracking your browsing behavior, you, cookie monster you*

Translation: The new site link in the previous tweet got 12 clicks, *Big brothers are tracking your browsing behaviour, you, cookie monster you*

(88) Favori Facebook Graph Search aramam: *"Photos of female friends of my female friends who are single, nearby me and have low self esteem"*

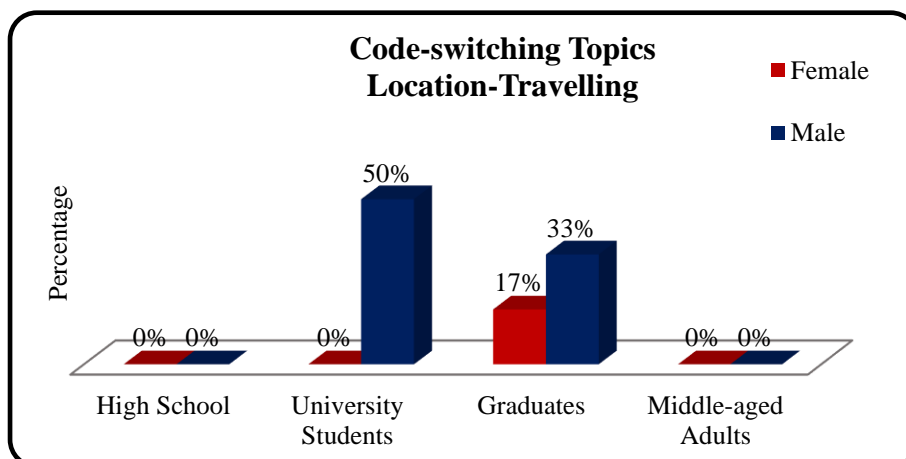
Translation: My favourite Facebook graph search: *"Photos of female friends of my female friends who are single, nearby me and have low self-esteem"*

(89) Her gelistirici *timezone support* belasini tadacaktir.

Translation: Every developer will experience the *time zone support* issue

### *Location and Travelling*

In Graph 63, CS about location and travelling for each age group and gender are presented. As can be observed, high school students and middle-aged adults did not CS when they wrote about their location and travelling. Although male university students make up half of the CS related to location and travelling, female university students never code-switched about their location or travelling. Among graduates, male participants code-switched to English with 33% more than female participants with 17%.



Graph 63: CS topics: location and travelling

CS examples (90) – (92) about location and travelling can be seen below:

(90) Okulun ismi Yıldırım olmadığı için *check in* yapamıyoruz maalesef .s

Translation: We cannot *check in* because the name of the school is not Yıldırım.

(91) İnsanlar düğün için hollandaya gidiyor bizde en fazla Ünalın *is the interchange station to the metrobus line*

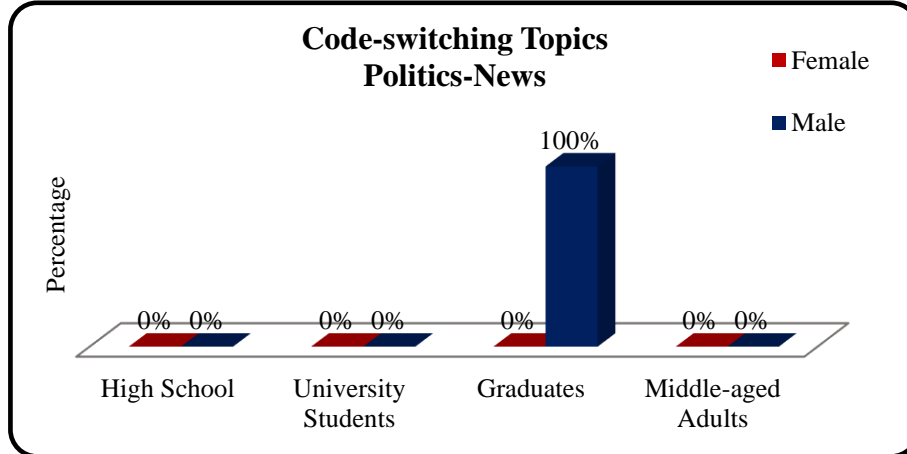
Translation: People go to Holland for a wedding, and for us the most Ünalın *is the interchange station to the metrobus line*

(92) Umut *going to London* gençler. 🙌

Translation: Umut *going to London* guys. 🙌

### *Politics, News, Religion and Social Events*

Graph 64 shows percentages of CS related to politics, news, religion and social events for each age group and gender. As can be seen from the graph, only male graduates code-switched to English when they were writing about politics, news, religion and social events.



Graph 64: CS topics: politics, news, religion and social events

Examples (93) and (94) of CS about politics, news and social events are illustrated below:

(93) *Shameless self-promotion*: Hurriyet'te haber olmusuz!

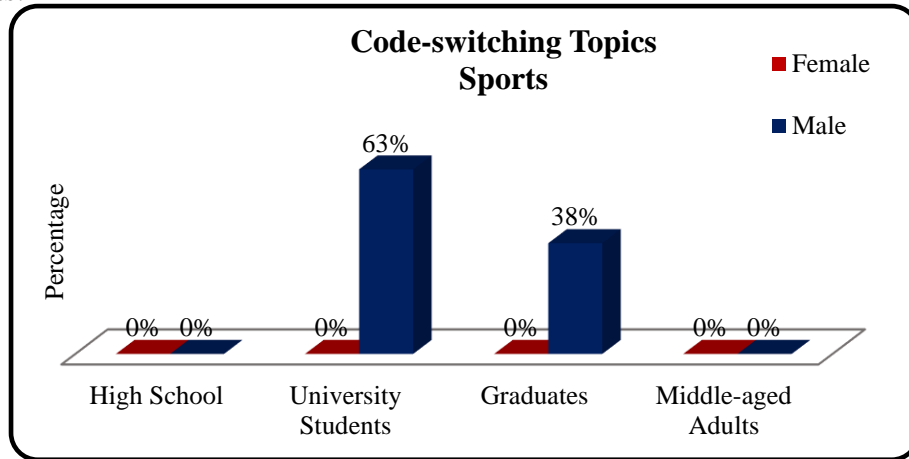
Translation: *Shameless self-promotion*: We are in the news, in Hurriyet!

(94) *Politically incorrect* olup gelcem bekleyin

Translation: I will be *politically incorrect* and come back, wait

## Sports

Graph 65 details the data on CS related to sports for each age group and gender. As can be seen, only male university students and male graduates code-switched when they were posting tweets about sports.



Graph 65: CS topics: sports

In examples (95) – (96) below, CS about sports are illustrated:

(95) Delirt bizi çıldırt bizi *czech republicim* bu stadı başlarına yıkalım

Translation: Make us go crazy and insane *Czech Republic*. Let's break down this stadium

(96) Fener de, Efes de baskette iyi kadro kurdu biri *final four* yapsa bari. # *You know nothing SERBIA*

Translation: Both Fener and Efes set up good squads in basketball. Hope one plays in *final four*. You know nothing *SERBIA*

### 4.5.2.4 Summary: Code-switching Topics

In this subsection, CS topics have been analysed with respect to age and gender. The data showed that Turkish native speakers code-switch to English mainly in tweets related to entertainment, followed by the internet and technology, daily life, business-work and education. The results indicate that entertainment; series, movies, songs, and so forth in English have an important effect on Turkish society followed by the internet and technology, and education.

Analysing the data with respect to age showed that graduates are the only age group that code-switch to English when writing posts about business and politics-news. Middle-aged adults only code-switch to English in tweets related to daily life, entertainment and education. These data might indicate the generation gap, a low English level or negative attitude of middle-aged adults towards CS. There is no previous study on attitudes towards CS between Turkish and English among Turkish people with respect to age. Further data collection by surveys or interviews would be needed to determine exactly why middle-aged adults CS less than any other age group. Furthermore, analysing the data with respect to gender revealed that females in the study do not code-switch in their posts related to emotions, politics-news and sports whereas males code-switch for each of these topics.

Code-switching Topics	High School Students		University Students		Graduates		Middle-aged Adults		Total
	Female	Male	Female	Male	Female	Male	Female	Male	
Business-Work	-	-	-	-	64%	36%	-	-	100%
Daily life	29%	10%	19%	5%	24%	10%	-	5%	100%
Education	-	-	30%	30%	-	10%	-	30%	100%
Emotions	-	25%	-	25%	-	50%	-	-	100%
Entertainment	5%	15%	25%	4%	15%	35%	2%	-	100%
Internet-Technology	-	29%	14%	8%	-	49%	-	-	100%
Location-Travelling	-	-	-	50%	17%	33%	-	-	100%
Politics-News	-	-	-	-	-	100%	-	-	100%
Sports	-	-	-	63%	-	38%	-	-	100%

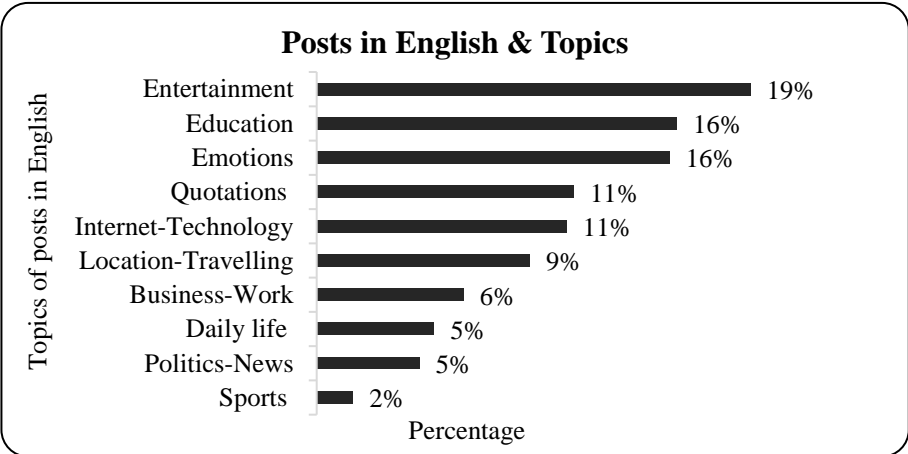
Table 46: CS topics: age and gender

The results of CS topics with respect to age and gender are summarised in Table 46 and it can be observed that CS about emotion, entertainment and internet-technology reach a peak with male graduates whereas CS about location-travelling and sports reach a peak with male university students. Moreover, female graduates have more code-switches related to business-

work and female high school students have more code-switches about daily life than other groups. The reason why each group code-switch to English with different topics might be because each group want to show their online glocal identities related to different topics.

**4.5.3 Topics of posts in English**

In this section posts only in English will be analysed for each topic with respect to age and gender. The data in Graph 66 indicate the percentages of topics of posts in English of Turkish people participated in this study. Turkish people write in English mainly (19%) when they are posting tweets about entertainment, followed by education and emotions (16%), quotations and internet-technology (11%), location and travelling (9%), business and work (6%), daily life and politics-news (5%), and finally sports (2%).



Graph 66: Posts in English and topics

According to these data, it can be inferred that Turkish native people mainly prefer writing in English when they are tweeting about entertainment. Posts related to entertainment make up 19% of all the posts in English found in the data which probably indicate that Turkish people in the research are exposed to English by American movies, series, songs and culture more than the education system and technological developments.

#### 4.5.3.1 Topics of posts in English & Age

In this section, posts in English will be analysed with respect to age. Table 47 indicates the percentages of topics of posts in English for each age group. As can be seen from the table, 37% of the English posts of high school students are related to entertainment, followed by emotions with 20%, internet-technology with 14%, daily life with 11%, education with 5%, quotations with 3% and finally with sports and politics-news with 2%. However, they do not have posts in English about business.

Topics of posts in English	High School Students	University Students	Graduates	Middle-Aged Adults
Business-Work	0%	3%	10%	0%
Daily life	11%	3%	4%	0%
Education	5%	6%	22%	0%
Emotions	20%	14%	15%	11%
Entertainment	37%	34%	12%	0%
Internet-Technology	14%	9%	11%	0%
Location-Travelling	8%	14%	10%	0%
Politics-News	2%	0%	3%	78%
Quotations	3%	14%	14%	11%
Sports	2%	3%	2%	0%
Total	100%	100%	100%	100%

Table 47: Topics of posts in English and age

University students mostly wrote about entertainment with 34%, followed by emotions, quotations and location-travelling with 14%, internet and technology with 9%, education with 6%, business-work, daily life and sports with 3%. In Table 48, results of this research are compared with the previous research which was conducted in 2011 (Tastan, 2012). As can be seen in the table below, percentages of posts in English related to entertainment, internet-technology and location-travelling has increased whereas quotations and daily life activities have decreased, and emotions has remained the same. The success of the American film industry, movies and series, and the impact of American popular music on Turkey might be the



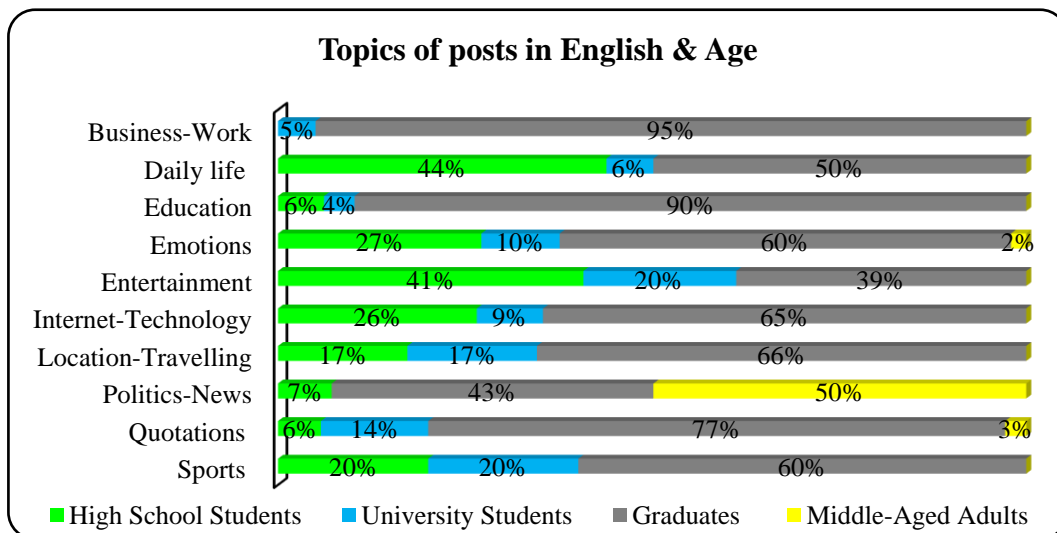
reason for the 4% increase in posts in English related to entertainment among university students.

<b>University Students - Topics of posts in English</b>		
<b>Topics of posts in English</b>	<b>Data Collection Period</b>	
	August 2011 & September 2011	October 2014, November 2014 & December 2014
Entertainment	30 %	34%
Quotations	22 %	14%
Emotions	14 %	14%
Daily life activities	9%	3%
Internet-Technology	8%	9%
Location/ Travelling	5%	14%

Table 48: Comparison of two studies: Topics of posts in English

It is apparent from Table 47 that graduates had posts in English about all the topics. Their posts reach a peak with education-related tweets at 22%, followed by emotions with 15% and quotations with 14%. The reason for graduates to write about education in English might be because some of the participants are teachers at schools where they instruct in English. Moreover, as some of the graduates in the study work in international companies, they might be writing in English because of their international followers; 10% of their posts in English are about business and work. Furthermore, 78% of the middle-aged adults' posts are about politics-news, 11% quotations and emotions. They do not have any posts in English about sports, location and travelling, the internet and technology, education, daily life and business and work.

In the bar chart 67, the percentages of topics of posts in English can be seen with respect to age. The graph shows that 95% of the posts in English about business and work belong to graduates and 5% to university students. Moreover, business-work, daily life, education, emotions, internet-technology, location-travelling, quotations and sports -related posts reach a peak with graduates. As can be observed from the graph 67, high school students make up 41% of the entertainment-related English posts whereas university students make up 20% and graduates make up 39%.



Graph 67: Topics of posts in English and age

Table 49 shows the correlations between topics of posts in English and age. As can be observed, weak correlations are found between age and topics of posts in English except politics and news. Only one relatively strong correlation of 0.89 is found between age and politics-news-related posts.

Topics of posts in English	Correlations
Business-Work	0.09
Daily life	-0.46
Education	0.05
Emotions	-0.23
Entertainment	-0.74
Internet-Technology	-0.21
Location-Travelling	-0.17
Politics-News	0.89
Quotations	0.02
Sports	-0.26

Table 49: Correlations between Topics of posts in English and age

Weak correlations between age and business-work, education, emotions, internet-technology, location-travelling, quotations and sports suggest that a weak link may exist between age and topics of posts in English. Although relatively weak correlations are found, negative correlations between age and entertainment-related English posts indicate that there is a tendency of writing fewer posts in English about entertainment as the age of the participants increases. Positive correlation between age and politics-news-related posts indicates that there is a tendency of writing more posts in English about politics-news as the age of the participants increases.

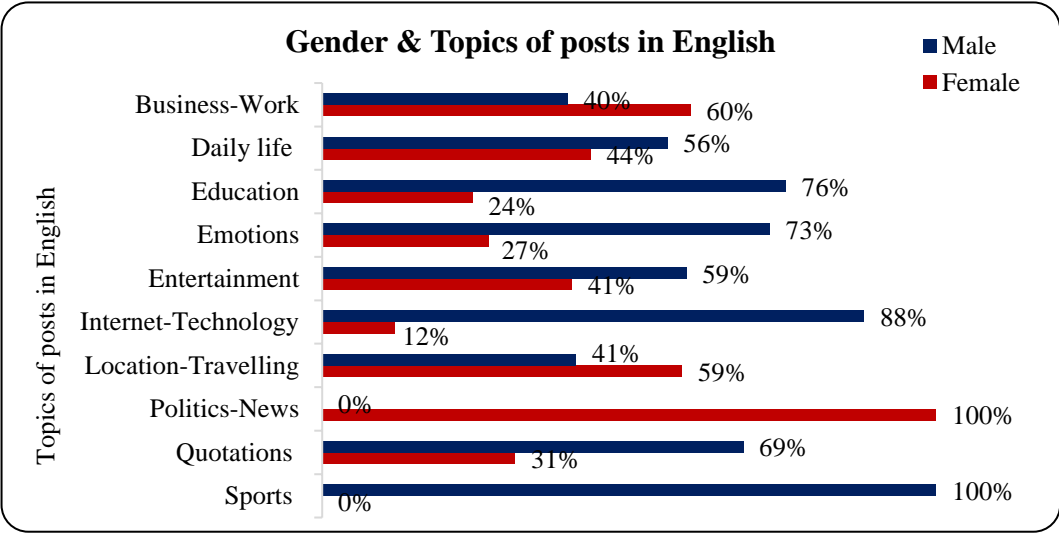
#### 4.5.3.2 Topics of posts in English & Gender

Table 50, presents the percentages of topics of posts in English for males and females. As can be seen from the table below 21% of the posts of female participants are related to entertainment, followed by location-travelling (15%), politics-news (12%), business-work education and emotion (11%), quotations (10%), daily life (6%) and finally internet-technology with (4%). On the other hand, 19% of the posts of males are related to education, followed by emotions, entertainment (18%), internet-technology (15%), quotations (12%), location-travelling (6%), daily-life (5%), business-work (4%), and finally sports (3%).

<b>Topics of posts in English</b>	<b>Female</b>	<b>Male</b>
Business-Work	11%	4%
Daily life	6%	5%
Education	11%	19%
Emotions	11%	18%
Entertainment	21%	18%
Internet-Technology	4%	15%
Location-Travelling	15%	6%
Politics-News	12%	0%
Quotations	10%	12%
Sports	0%	3%
Total	100%	100%

Table 50: Topics of posts in English and gender

Graph 68 shows the percentages of the topics of posts only in English with respect to gender. As can be seen from the graph, female participants have posts in English more than male participants about business-work, location-travelling and politics-news whereas male participants have posts about business and work, daily life, education, emotions, entertainment, internet-technology, quotations and sports more than do female participants.



Graph 68: Topics of posts in English and gender

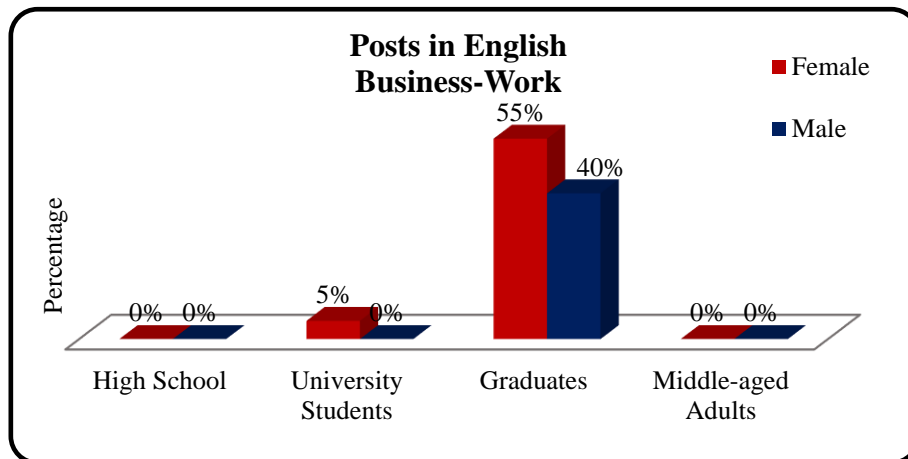
Interestingly, only female participants have posts in English related to politics and news. This finding is unexpected and suggests that female participants want to show their online global identities when writing about politics whereas male participants do not. On the contrary only male participants have posts in English related to sports whereas females do not have any which might indicate male participants’ will to show their online identities related to sports.

4.5.3.3 Topics of posts in English: Age & Gender

In this section topics of posts in English will be analysed with respect to age and gender and examples for each topic will be given from the gathered data.

### *Business-Work*

In Graph 69, the percentages for each group regarding their business-work related English posts can be seen. Male graduates make up 40% of the business and work related English posts where female graduates make up 55% and female university students 5%.



Graph 69: Posts in English: business and work

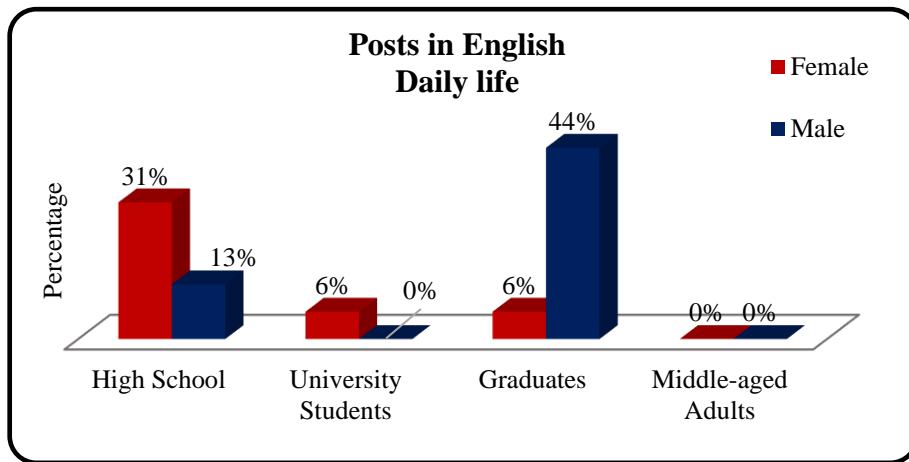
Examples (97) – (102) below illustrate posts in English about business and work:

- (97) Getting to know MAPFRE...
- (98) Evaluating startups
- (99) Yes. there is a painting of Ellen's Oscar selfie at @twitter's Headquarters :)
- (100) The meeting rooms of @Airbnb HQ in SF are all replicas of actual homes that can be rented through
- (101) PILOTT teams visited @Stanford. He gave a special talk on Silicon Valley & European #Entrepreneurship
- (102) If you are working as a freelancer, then you may appreciate

### *Daily life*

Bar chart 70 below presents the percentages of posts in English about daily life for each group. As can be seen from the graph, female university students and female graduates make up 6% ; female high school students make up 31% of the English posts about daily life whereas female middle-aged adults do not have any posts. Male high school students make up 13% of the posts

in English related to daily life activities and male graduates 44%; whereas male university students and middle-aged adults do not have any posts related to daily life activities.



Graph 70: Posts in English: daily life

Examples (103) – (107) below show posts in English about daily life:

(103) “@X: Does running late count as exercise?” @X.

(104) happy to announce that I start to work out again. otherwise I would lose my mind! We all need to do just for ourselves.

(105) Took this yesterday in #nisantasi #istanbul

(106) Winter is Coming! #storm

(107) Friends in Istanbul, I need help!

### *Education*

Graph 71 illustrates the percentages of posts in English about education with respect to age and gender. The percentages are highest among male graduates with 71%, followed by the female graduates with 18%. Female high school students make up 6% of English posts about education whereas male university students make up 4%. Middle-aged adults do not have any posts in English related to education. Examples (108) – (113) below illustrate posts in English about education:

(108) If only class walls could talk II #elt #classwalls

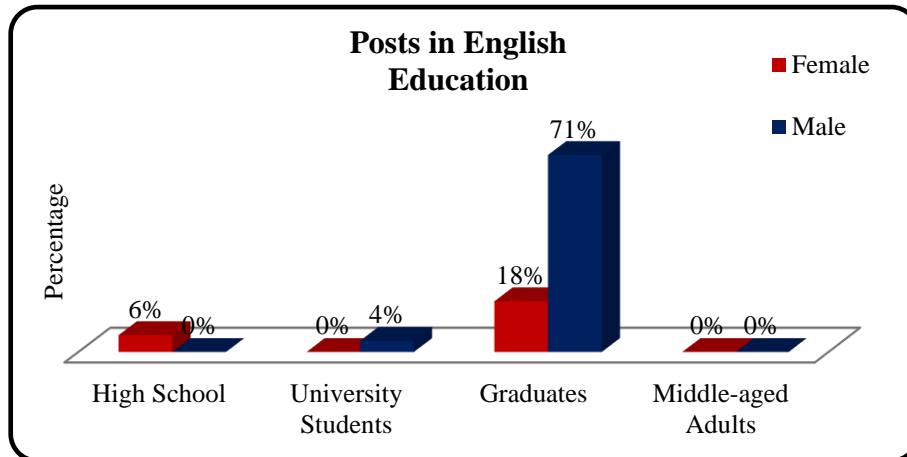
(109) School time 🎒 @ Doğa Koleji

(110) Nominating my favorite teacher blog

(111) Teachers at room and it is time to start to minicourse of Robert College #minicourserc

(112) Technology transforming education or education transforming technology ?

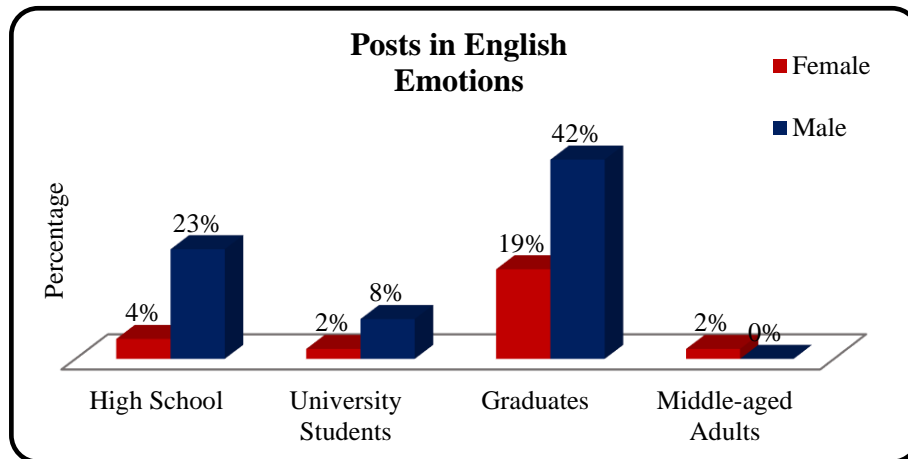
(113) Teachers in action for evaluation , analysis , get to know more #minicourserc



Graph 71: Posts in English: education

### *Emotions*

Graph 72 shows the percentages of posts in English related to emotions. As can be observed, male graduates have the highest percentage (42%), followed by the male high school students with 23% and male university students 8%. Moreover, male middle-age adults do not have any posts in English while whereas female participants have 2%. From high school students to graduates, in each age group male participants have more posts in English related to emotions than female participants. More research needs to be undertaken to find out why Turkish people prefer expressing their emotions in English rather than Turkish.



Graph 72: Posts in English: emotions

Examples (114) – (121) below illustrates posts in English about emotions:

(114) Cant afford to lose you..

(115) But I love you so much it hurts

(116) Some people really inspire . Thanks a lot to you . felt it today again...

(117) as a dependent variable: my mood

(118) Floating to the edge of the world

(119) All these talks are getting me down

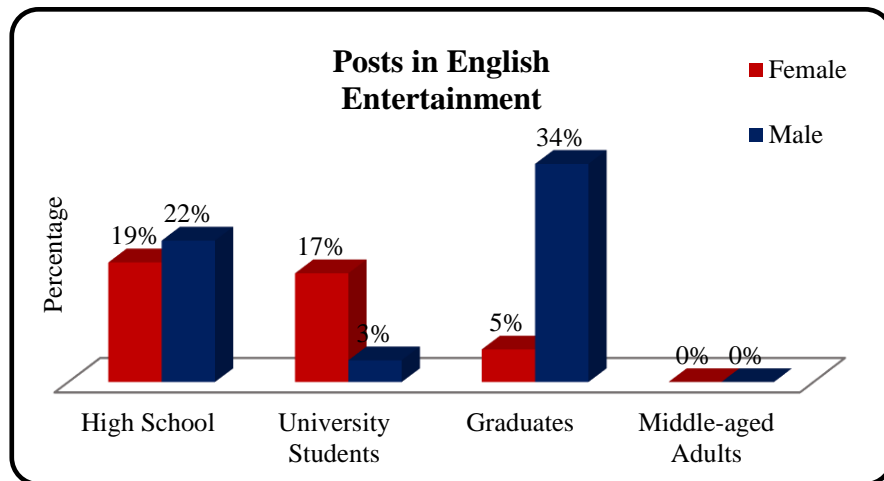
(120) “@X: I don't miss him. I miss us.”

(121) Double happiness

### *Entertainment*

Graph 73 shows the percentages of posts in English about entertainment with respect to age and gender. Results are highest among graduates with 34%, whereas female graduates make up only 5% of the posts in English about entertainment. Among graduates and university students, significant differences can be seen between female and male participants. However, among high school students, there is an insignificant difference between female and male participants. Middle-aged adults do not have any posts in English related to entertainment.





Graph 73: Posts in English: entertainment

Examples (122) – (127) of posts in English about entertainment can be seen below:

(122) Hear the music

(123) Make love, listen to the music

(124) French house music.

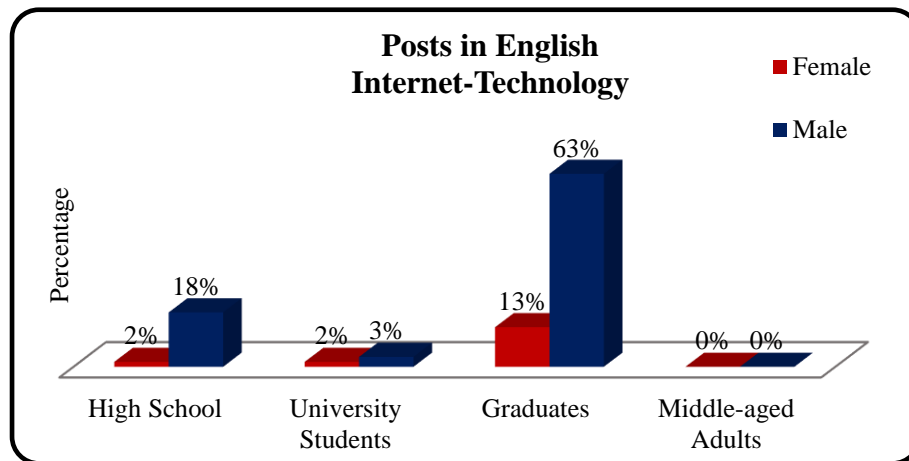
(125) And the beat goes on

(126) Dedicated to constantly wired friends. #electronicmusic #getworkdone #betterthancoffee

(127) The sound I need..

### *Internet-Technology*

Graph 74 presents the percentages of posts in English related to the internet and technology. The data indicates that, male graduates make up 63% of the posts in English related to the internet and technology. Moreover, among high school students, university students and graduates, male participants have more posts in English related to the internet and technology than female participants whereas both female and male middle-aged adults do not have any posts in English related to the internet and technology.



Graph 74: Posts in English: Internet and technology

Examples of posts in English about the internet and technology (128) – (132) are illustrated below:

(128) Nominated my favorite blog

(129) Say hello to my 5S Gold♥

(130) I wonder if tough video games strengthen kids' willpower.

(131) apparently @instagram's own account also lost 18 million followers overnight

(132) Font Awesome now has TRY icon, sweet.

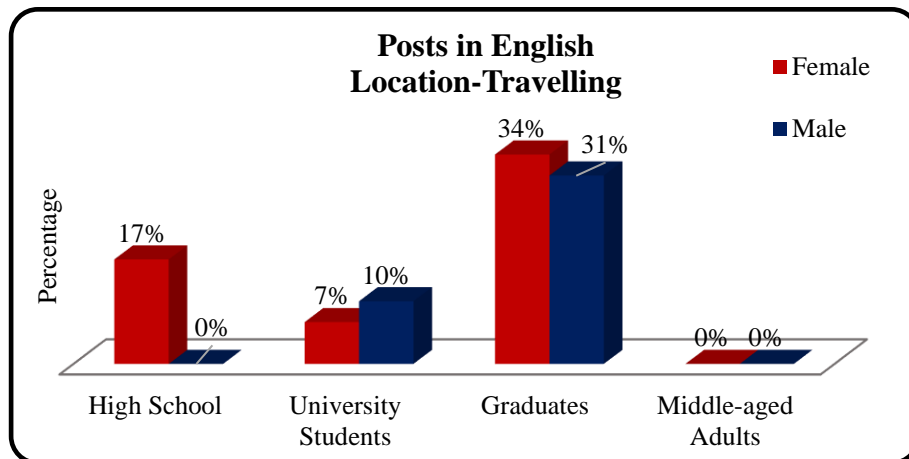
### *Location-Travelling*

Percentages of the English posts related to location and travelling for each group are illustrated in Graph 75. Middle-aged adults do not have any English posts related to travelling and location whereas male graduates make up 31% and female graduates make up 34% of the posts in English related to travelling and location. There is a significant difference in high school students between females and males: female high school students make up 17% of the posts related to travelling and location whereas male high school students do not have any posts. Examples of posts in English about location and travelling (133) – (135) can be seen below:

(133) Landed! (@ Aeropuerto Adolfo Suárez Madrid-Barajas (MAD))

(134) Back in town for a week! (@ İstanbul Atatürk Airport (IST))

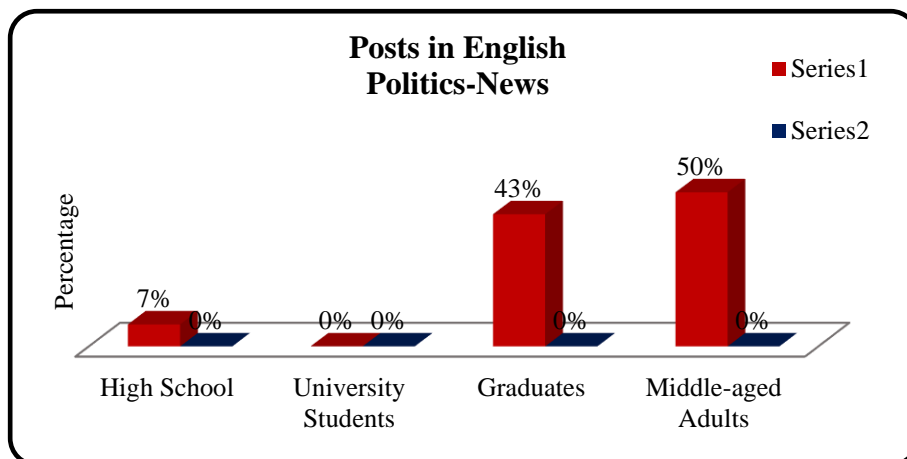
(135) Having fun in Alacati🚤🌊



Graph 75: Posts in English: location and travelling

*Politics-News*

Graph 76 provides the percentages of posts in English about politics, news and social events with respect to age and gender. Surprisingly it has been found that only female participants have posts only in English about politics, news and social events. Moreover, middle-aged adults make up half of the posts, followed by graduates with 43% and finally by high school students with 7%.



Graph 76: Posts in English: politics, news, religion and social events

The given examples (136) – (139) below illustrate the posts in English about politics, news and social events:

(136) Extremely sad news

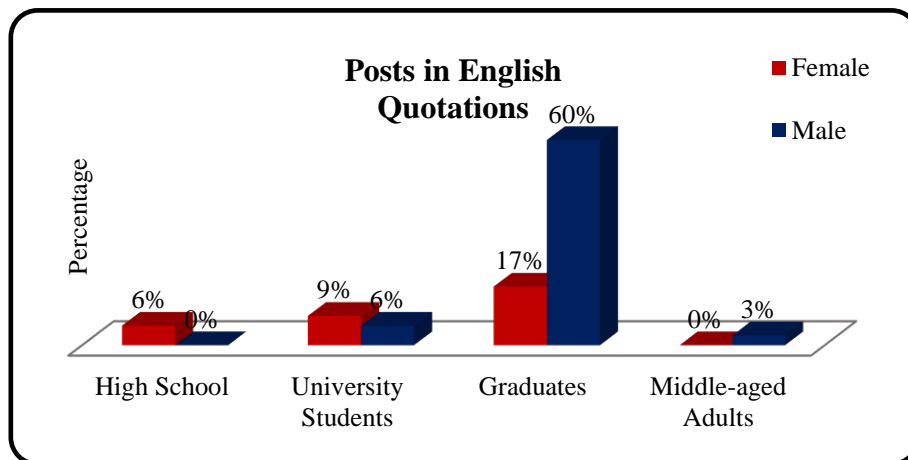
(137) Wear pink tomorrow for #BreastCancerAwareness and post your own photos on FB, Twitter & Instagram using #uftgopink.

(138) Against #bullying 🖤

(139) It's debate time, and the topic is 'How to save the environment?' #ydyo #anadoluhazirlik

### Quotations

Bar chart 77 provided below illustrates the percentages of quotation in English with respect to age and gender. As can be seen, there is a noticeable difference between females and males among graduates: male graduates make up 60% of the quotations in English whereas females make up 17%. Furthermore, male high school students and female middle-aged adults do not have any quotations in English whereas female high school students make up 6%, female university students make up 9% and male university students make up 6% of the quotations in English found in the data.



Graph 77: Posts in English: quotations

Examples (140) – (146) show quotations in English:

(140) You can't start the next chapter of your life if you keep re-reading the last one

(141) Less worries, more smiles.

(142) be the best fuck the rest

(143) If it doesn't challenge you, it doesn't change you

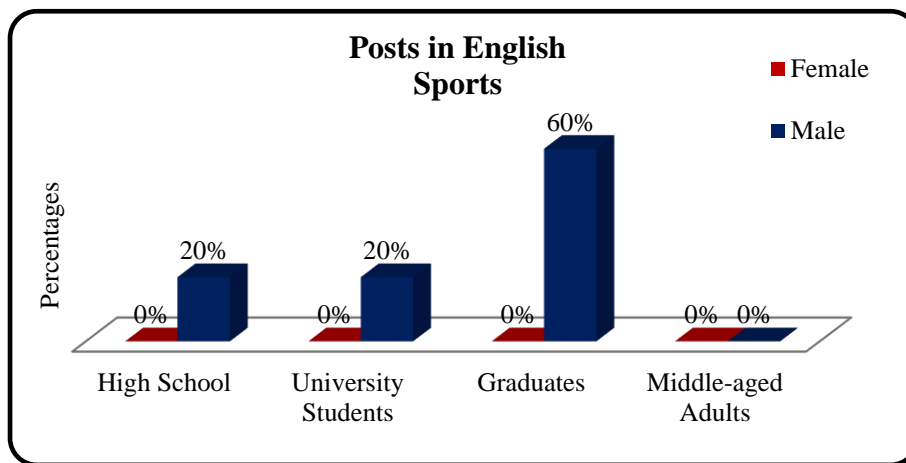
(144) Faster better stronger

(145) "I've done no wrong, sweet Jesus hear my pray. Look down, look down sweet Jesus doesn't care" - Le Miserables

(146) A river cuts through rock not because of its power but because of its persistence

### *Sports*

The percentages of posts in English about sports are presented in Graph 78. As can be seen from the bar chart, only male high school students, university students and graduates have posts in English related to sports. Female participants do not write any posts in English related to sports.



Graph 78: Posts in English: sports

Examples (147) – (150) of posts in English about sports are presented below:

(147) A true true champion works like a champion

(148) Leave BJK alone !

(149) Best workout

(150) My name is Kewell Kewell from GALATASARAY

#### *4.5.3.4 Summary: Topics of posts in English*

In this subsection, topics of posts in English have been analysed with respect to age and gender. It has been found that Turkish native people write tweets in English mainly about entertainment,

followed by education, emotions, quotations and internet-technology. As the age of the participants increase, there is a tendency of writing more posts in English about politics-news and less about entertainment.

Table 51 summarises Topics of posts in English with respect to age and gender. All the topics except politics-news are highest among graduates; only in politics-news-related posts do middle-aged adults have the highest percentage. Moreover, when middle-aged adults are not taken into consideration, it can be seen from the table that all the groups have posts in English related to emotions and entertainment. Middle-aged adults only have tweets in English related to emotions, politics-news and quotations which might be explained by the generation gap.

Posts in English Topics	High School Students		University Students		Graduates		Middle-aged Adults		Total
	Female	Male	Female	Male	Female	Male	Female	Male	
Business-Work	-	-	5%	-	55%	40%	-	-	100%
Daily life	31%	13%	6%	-	6%	44%	-	-	100%
Education	6%	-	-	4%	18%	71%	-	-	100%
Emotions	4%	23%	2%	8%	19%	42%	2%	-	100%
Entertainment	19%	22%	17%	3%	5%	34%	-	-	100%
Internet-Technology	-	26%	3%	6%	9%	56%	-	-	100%
Location-Travelling	17%	-	7%	10%	34%	31%	-	-	100%
Politics-News	7%	-	-	-	43%	-	50%	-	100%
Quotations	6%	-	9%	6%	17%	60%	-	3%	100%
Sports	-	20%	-	20%	-	60%	-	-	100%

Table 51: Topics of posts in English: age and gender

Furthermore, only female high school students, graduates and middle-aged adults have posts in English about politics-news where only male high school students, university students and graduates have posts in English about sports.

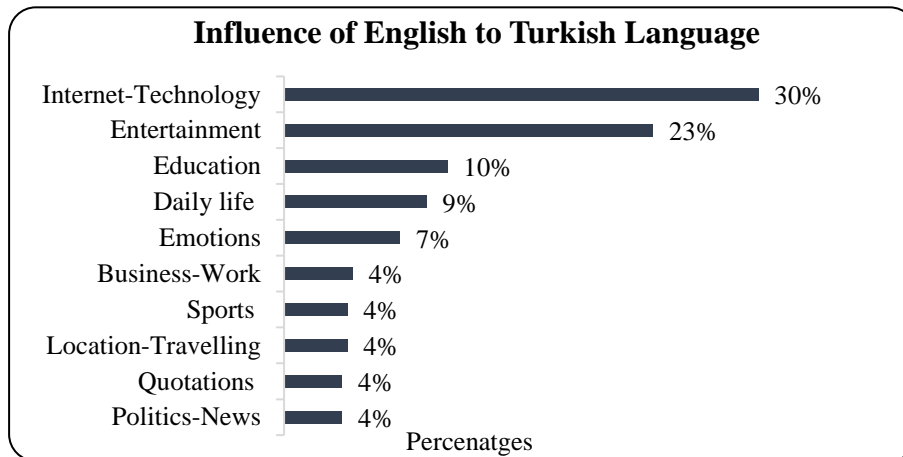
#### 4.5.4 Summary: Influence of English

In this research, topics in which English appears have been analysed at 3 levels; lexical borrowing topics, code-switching topics and topics of posts in English. Table 52 shows the percentages of the topics on 3 levels; lexical borrowing, CS and posts only in English for Turkish native people communicating online.

<b>Content</b>	<b>Lexical Borrowing</b>	<b>Code-switching</b>	<b>Posts in English</b>
Business-Work	1%	6%	6%
Daily life	10%	12%	5%
Education	9%	6%	16%
Emotions	1%	5%	16%
Entertainment	20%	31%	19%
Internet-Technology	51%	28%	11%
Location-Travelling	-	3%	9%
Politics-News	2%	4%	5%
Quotations	-	-	11%
Sports	5%	5%	2%
Total	100%	100%	100%

Table 52: Lexical borrowing, CS and posts in English with respect to content

When lexical borrowing, CS and posts only in English are taken together and analysed with respect to each topic, the data provides insights for the influence of English upon the Turkish language. Bar chart 79, shows the influence of English upon the Turkish language in percentages for each topic. It can be clearly seen from Graph 79 that Turkish people in the study borrow English words, code-switch to English or write only in English mainly when posting about the internet and technology with 30%, followed by entertainment with 23% and education with 10%.

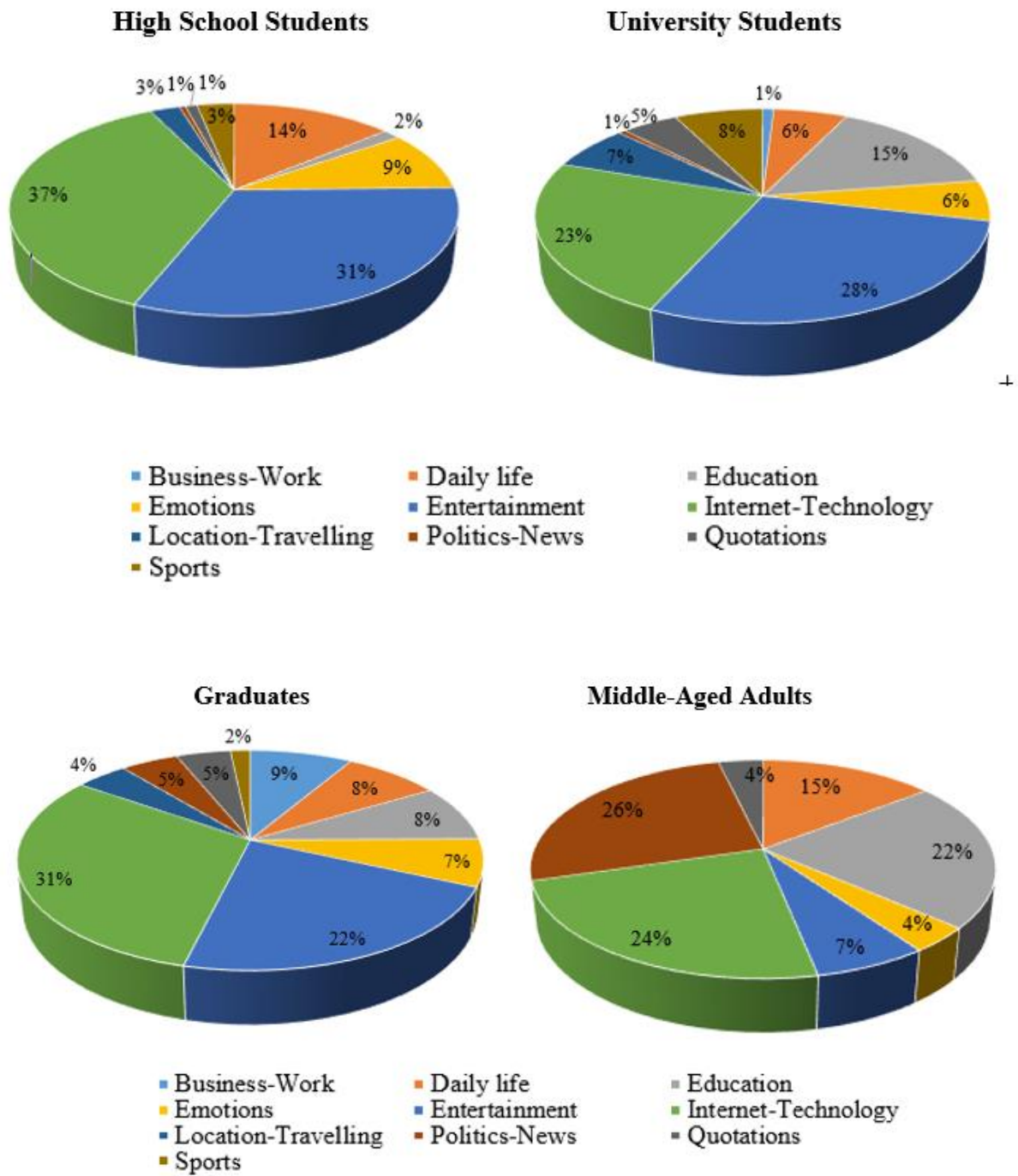


Graph 79: Influence of English to Turkish language

#### 4.5.4.1 Influence of English & Age

When the influence of English upon the Turkish language is analysed with respect to age, it has been found that each age group borrow English words, code-switch to English or write in English with different frequencies. Graph 80 presents the influence of English to Turkish with respect to topics for each age group. It can be seen that Turkish high school students mainly use English in internet-technology-related posts with 37%, followed by entertainment related posts with 31% and daily life related posts with 14%. It is interesting to see that, among high school students the influence of English through education is the lowest with 2%. This is probably as a result of the low English level of high school students. Moreover, university students with 28% use English in the posts related to entertainment, followed by internet-technology with 23% and education with 15%. Data in Graph 80 indicates that graduates use English in the internet-technology-related posts with 31%, entertainment-related posts with 22%, and business-work related posts with 9%. Furthermore, 26% of the middle-aged adults' posts have English words or phrases related to politics, followed by internet-technology-related posts with 24%, and education with 22%. The first 3 topics with the highest frequencies, in which English appears for each age group are listed in Table 53.





Graph 80: Influence of English and age

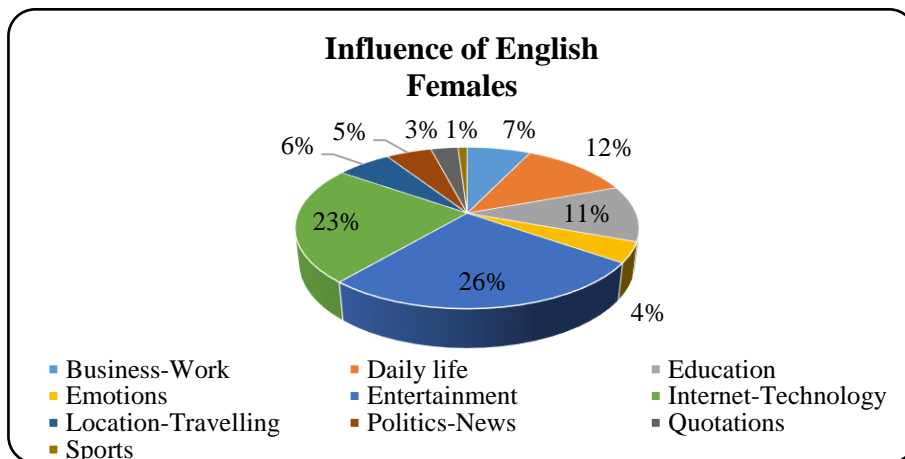
Participants	Influence of English to Turkish Language
	Frequency of Topics
High School Students	Internet-Technology>Entertainment>Daily Life
University Students	Entertainment> Internet-Technology>Education
Graduates	Internet-Technology>Entertainment>Business-work
Middle-aged Adults	Politics-News> Internet-Technology>Education

Table 53: Influence of English: frequency of topics and age

Table 53 highlights that for high school students and graduates the influence of English through the internet and technology is the highest. Among high school students and graduates, there is an influence of English through internet and technology more than the influence through movies, series and music, whereas among university students it is the opposite. University students are influenced through entertainment more than the internet and technology. Graduates are the only group influenced by English through business and work. However, this is not particularly surprising given the fact that some of the graduates are working in international companies where the company language is English. Moreover, among university students and middle-aged adults, high influence of English through education can be seen. If we consider that some of the middle-aged adults are teaching at universities where English is used as the medium of instruction, these results were expected. Middle-aged adults write in English mainly related to politics, news and social events, probably because of their connections on Twitter, as well as in order to show their online glocal identities.

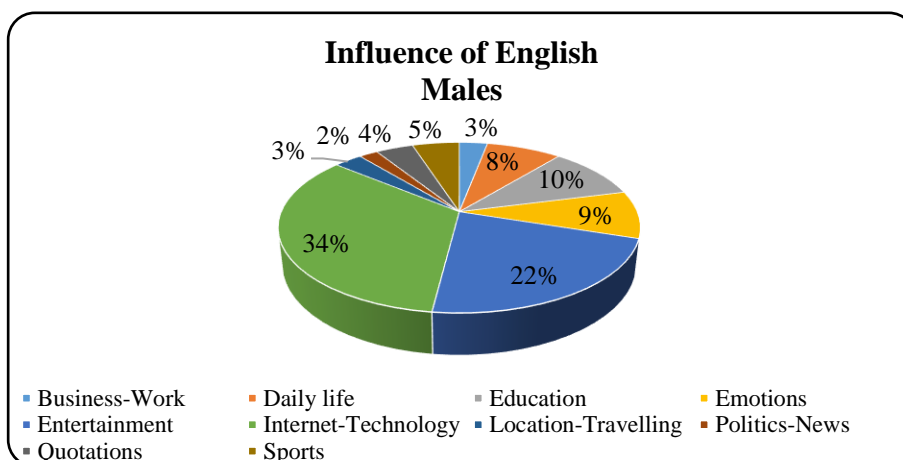
#### 4.5.4.2 Influence of English & Gender

In this section, the influence of English upon the Turkish language will be analysed with respect to gender. When lexical borrowing, CS and posts only in English are taken together, it is found that the influence of English on females and males are different for each topic. Graph 81 presents the percentages for each topic for females.



Graph 81: Influence of English and females

It can be clearly seen from the pie chart above that females used English mainly in posts related to entertainment with 26%, followed by internet-technology with 23%, daily life with 12% and education with 11%. Pie chart 82 shows the percentages of influence of English for males for each topic. Males use mainly English in their posts related to the internet and technology with 34%, followed by entertainment with 22% and education with 10%.



Graph 82: Influence of English and males

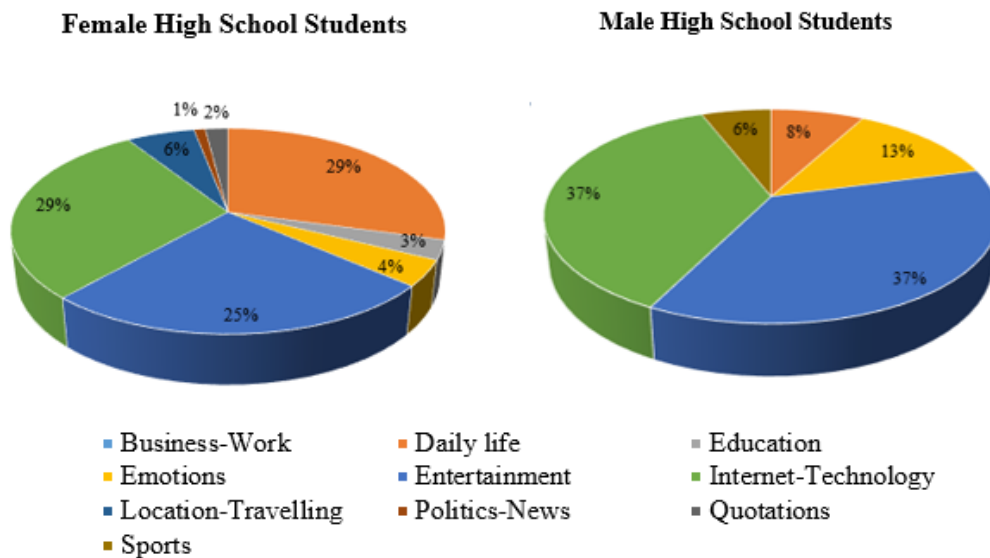
Taken together, the first three topics with the highest frequencies, in which English appears with respect to gender are listed in Table 54. As can be seen from Table 54, the influence of English through entertainment is the highest for females, whereas for males the influence of English through internet and technology is the highest.

Participants	Influence of English to Turkish Language Frequency of Topics
Female	Entertainment >Internet-technology>Daily life
Male	Internet-technology> Entertainment>Education

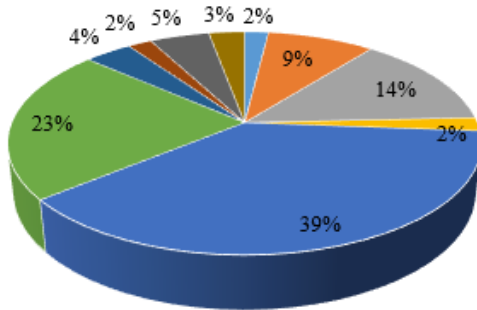
Table 54: Influence of English: frequency of topics and gender

#### 4.5.4.3 Influence of English: Age & Gender

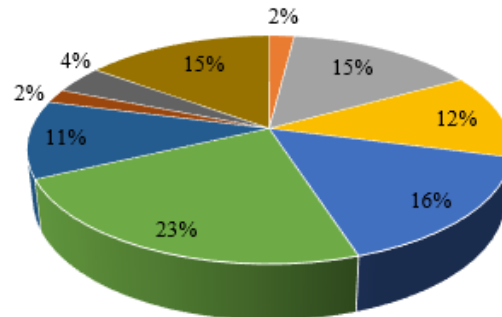
In this section, lexical borrowing, CS and posts only in English are taken together and the influence of English upon the Turkish language with respect to age and gender will be presented. Pie charts 83 for each group provides the percentages for each topic with respect to age and gender.



**Female University Students**

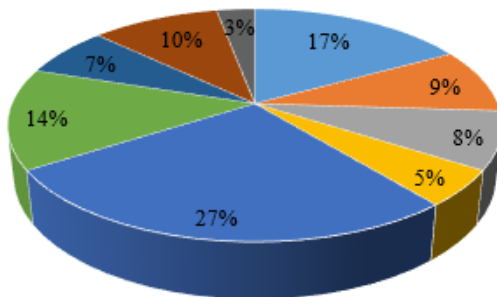


**Male University Students**

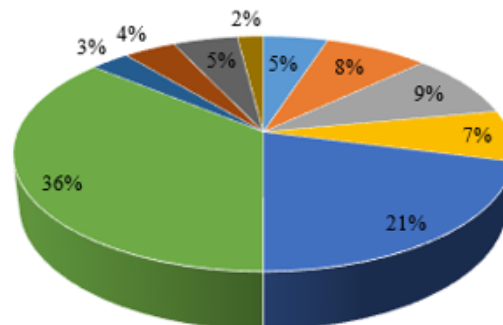


- Business-Work
- Emotions
- Location-Travelling
- Sports
- Daily life
- Entertainment
- Politics-News
- Education
- Internet-Technology
- Quotations

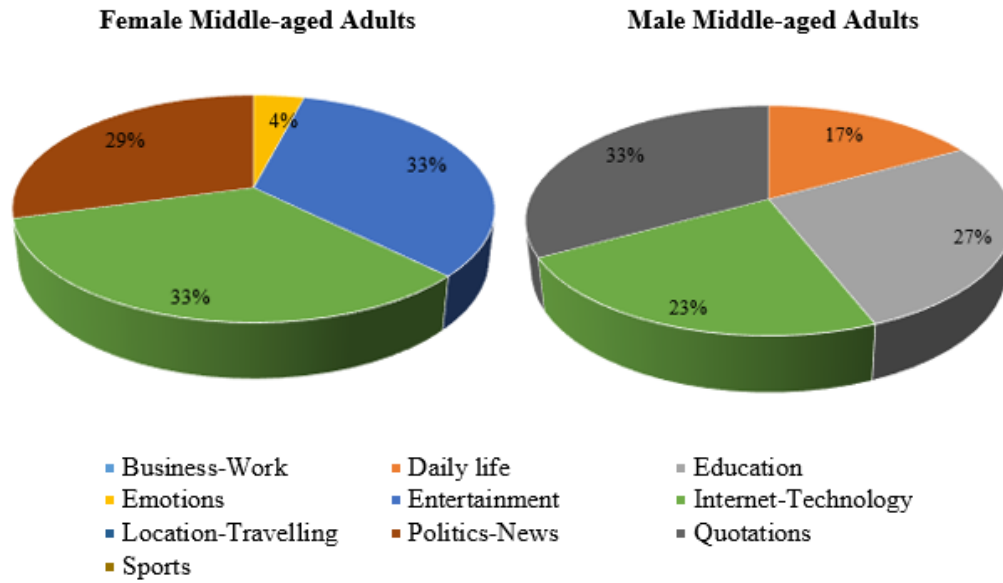
**Female Graduates**



**Male Graduates**



- Business-Work
- Emotions
- Location-Travelling
- Sports
- Daily life
- Entertainment
- Politics-News
- Education
- Internet-Technology
- Quotations



Graph 83: Influence of English: age and gender

As can be seen from the pie charts above, for each group the influence of English varies. Table 55 summarises the first 3 topics with the highest frequencies, in which English appears with respect to age and gender.

Participants	Influence of English to Turkish Language Frequency of Topics
Female High School Students	Internet-Technology=Daily life >Entertainment
Male High School Students	Internet-Technology=Entertainment>Emotions
Female University Students	Entertainment>Internet-Technology>Education
Male University Students	Internet-Technology>Entertainment>Education
Female Graduates	Entertainment>Business-work>Politics-News
Male Graduates	Internet-Technology>Entertainment>Education
Female Middle-aged Adults	Internet-Technology=Entertainment>Politics-News
Male Middle-aged Adults	Quotations>Education>Internet-Technology

Table 55: Influence of English: frequency of topics: age and gender

Among male university students and male graduates, the influence of English through the internet and technology is the highest whereas among female university students and female graduates, influence through entertainment has the highest rate. Interestingly, among male high

school students and female middle-aged adults, internet-technology and entertainment has the same rates. Moreover, middle-aged adults use English in quotations the most, followed by education and internet-technology.

## **CHAPTER 5: CONCLUSIONS**

The present research has attempted to analyse how Turkish native speakers use Turkish Netspeak and English on Twitter, with respect to age and gender, in the construction of their online glocal identities. In this chapter, main findings and contributions will be summarised and the limitations of the study and directions for future research will be presented. Conclusions of the study will be presented in 3 subsections: Netspeak, language contact phenomena and topics in which English appears. In this study, the data have been analysed with respect to age, gender and finally with respect to two variables: age and gender together. In each subsection, findings for Turkish people participated in the study will be summarised, followed by the findings gathered by analysing the data with respect to age, gender and finally with respect age and gender together. As stated in the introduction, in order to analyse how Turkish native speakers use Netspeak and English on Twitter, three main research questions were addressed. In each subsection, one of the research questions will be answered.

### **5.1 Netspeak**

The first research question was concerned with the use of Netspeak and the effects of CMC on the written Turkish language with respect to age and gender. In order to determine the use of Turkish Netspeak, the effects of CMC on the Turkish language, non-standard features of written language, and Turkish online abbreviations have been analysed. The study has confirmed the findings of Temur and Vurus (2009) and Tastan (2012) that CMC has affected written Turkish, and several non-standard features of the written language are used by Turkish people communicating online. Firstly, non-standard spelling is analysed and it has been revealed that 50% of the posts in Turkish in the data have non-standard spellings: meaning that repeated characters are used, Turkish characters are substituted with English characters, vowels and consonants are omitted. The reason why the Turkish people in the study substitute Turkish characters with English characters might be simply that they have an English keyboard. They might also be omitting vowels and constants to save time, effort and/or space as each tweet has 140-character limitation. However, it has been observed that participants omitted characters even though there is no character limitation. Omitting characters, substituting Turkish characters with English characters and using abbreviations extensively are considered as



Turkish Netspeak, rather than mistakes and indicates online identity. Further data collection with surveys or interviews would be needed to determine exactly why the participants omit characters and substitute Turkish characters with English characters. Secondly, repeating characters for emphasis is analysed. This is the first study to investigate the frequency of repeating characters for emphasis in Turkish speakers' tweets, and this phenomenon is found in every 18 tweets. Finally, Turkish online abbreviations found in the data are analysed and it is found that the abbreviations in the data are mainly related to politics, education and swear words.

Firstly, analysing the data with respect to age revealed that middle-aged adults have fewer spelling mistakes than other age groups whereas high school students have the highest number of spelling mistakes in their tweets. Similarly, it is found that, among high school teenagers, repeating characters is a widespread phenomenon and, as the age of the participants increases, the number of repeating characters decreases. However, the data have revealed that middle-aged adults use Turkish online abbreviations more than other age groups and the use of Turkish online abbreviations increases from high school students to university students, graduates and, finally, to middle-aged adults. Besides, middle-aged adults in the study use Turkish abbreviations mainly related to politics whereas the high school students, university students and graduates mostly use Turkish online abbreviations of swear words. Taken all together, the evidence from this study suggests that the use of Turkish Netspeak reaches a peak with high school students having the highest amount of spelling mistakes and repeated characters in their posts, and decreases as the age of the participants increase from high school students to middle-aged adults. In other words, the study has shown that the effect of CMC on the Turkish language among high school students is very strong. The hypothesis of this paper as stated in the introduction, that younger people will use Netspeak more often than older people, has thus been verified.

Secondly, analysing the data with respect to gender has revealed that although the females in the study have slightly more posts in Turkish than males, they have far fewer spelling mistakes. Forty-four percent of the female posts have spelling mistakes, whereas 56% of the male posts do. These results confirm previous findings in the literature that females use more standard language and score better than males in writing tests (Baron, 2008). Surprisingly it has been found that there is no difference between females and males in repeating characters for emphasis. On the other hand, male participants use significantly more Turkish online

abbreviations in their posts than females: seventy four percent of the Turkish online abbreviations belong to males. The hypotheses elaborated at the beginning of the research about gender and the use of Netspeak have thus been verified, and the evidence from this study suggests that males seem to use Turkish Netspeak more often than females.

Finally, analysing the data with respect to age and gender separately has revealed relatively consistent results whereas weak relations are found when the data are analysed with respect to the two variables of age and gender taken together. The research shows that male high school students have the highest rate of non-standard spelling and repeating characters in their posts, whereas female middle-aged adults have the lowest. However, it is found that both among female and male participants, as age increases, the number of spelling mistakes and repeating characters decrease. Moreover, it has been found that male middle-aged adults use Turkish online abbreviations more than other groups. Overall, evidence from this study suggests that male high school students use Turkish Netspeak more often than other age and gender groups.

## **5.2 Language Contact Phenomena**

The second research question related to the use of English and language choice focused on the language contact phenomena; lexical borrowing and CS with respect to age and gender. It has been found that the language choice of Turkish people in the study is mainly Turkish, with 87% of their tweets. The rest, 13% of the tweets, have English words, phrases or are in English. This research shows that Turkish people use English extensively while communicating online. In language contact phenomena, firstly lexical borrowings are analysed and found that Turkish people participated in the study borrow lexical items from English with 3.4% in their posts on Twitter and most of the items borrowed are nouns, followed by verbs and other items. This study provides further evidence that within the borrowed items nouns are borrowed more frequently than any other item (Tastan, 2012; Rendon, 2008). Cultural borrowings – new concepts that do not exist in Turkish language – are taken from English with 52%, more than the equivalent words that already exist in Turkish, core borrowings with 48%. Cultural borrowings are gap-fillers that enrich the lexicon of poorly equipped languages and can be explained with the gap hypothesis (Myers-Scotton, 1993b). Most of the cultural borrowings found in the data are Internet- and technology- related words. An implication of these findings

is that Turkish people in the research use English words such as the new terminology related to technology to fill the lexical gap in this field in the Turkish language. Most of the core borrowings Turkish people borrowed are related to entertainment, education and daily life activities. Although these words exist in the Turkish language, participants use the English equivalents. The tendency of borrowing words from another language although they exist in the recipient language is explained by the prestige hypothesis (Mertz, 1989, p. 112; Matras, 2009). Participants borrow words to have more prestige, gain approval and social status by imitating a more dominant society. These results would appear to indicate that Turkish people in the study borrow 48% of the words from English to have more prestige in society and 52% of the words to fill in the lexical gap in the Turkish language with words related to new technologies. This paper has investigated CS from Turkish to English and found that 3.32% of the tweets had CS. Of these code-switches, 83% were intra-sentential CS in which participants switched from Turkish to English within the same sentence, whereas 17% were inter-sentential CS in which the participants switched between sentences. The results of this study are in line with the previous study (Tastan, 2012) and indicate that the frequency of CS for Turkish native people is intra-sentential CS > inter-sentential CS.

The present study, for the first time, has attempted to analyse differences between age groups – high school students, university students, graduates and middle-aged adults – in their use of English in CMC. In this research, generation gap between middle-aged adults, and younger age groups, in the language choice has been noticed. When middle-aged adults are not taken into account, strong correlations are found between the number of tweets and age. The number of tweets in Turkish decrease whereas number of tweets in Turkish and English, and only in English increase as the age of the participants increase from high school students to university students and finally to graduates. The hypothesis of this paper as stated in the introduction, that younger Turkish native speakers will use English more than the older speakers has proven to be wrong. This study has shown that the use of English increase from high school students to university students and to graduates but reaches the lowest point with the middle-aged adults. Furthermore, when English online abbreviations are analysed it is found that high school students use English abbreviations more than other age groups, and they are mainly related to technology, games, Twitter and swear words. Moreover, the frequency of borrowing items for university students, graduates and middle-aged adults is nouns > verbs > others whereas for high school students is nouns > others > verbs. The reason why high school students borrow more

other items than verbs could be the low English level of high school students, as verbs are not easily borrowed from one language to another (Myers-Scotton, 2006). Furthermore, the data revealed that as the age of the participants increase, there is a tendency of having less core and cultural borrowings in tweets. It has been observed that the frequency of types of lexical borrowing varies for age groups. University students and middle-aged adults have more core borrowings than cultural borrowings whereas high school students and graduates have more cultural borrowings than core borrowings. These results indicate that university students and middle-aged adults borrow more English words with direct Turkish equivalents, whereas high school students and graduates borrow more words from English to fill in the lexical gap in the Turkish language. Secondly, when CS is analysed with respect to age, it is found that each age group have more intra-sentential CS than inter-sentential CS. The data indicates that when middle-aged adults are not taken into consideration, from high school students to graduates, as the age of the participants increase, the percentages of intra-sentential CS and inter-sentential CS increase. Overall, this study indicates that the amount of lexical borrowing and CS increase from high school students to university students and finally to graduates but reaches the lowest value with middle-aged adults. It is found that when middle-aged adults are not taken into account, from high school students to graduates the amount of lexical borrowing and CS increase with strong correlations.

When language choice on Twitter is analysed with respect to gender it is found that Turkish males in the study use English more than females. It is found that male participants have posts in Turkish and English (7%) and posts in English (6%) more than females. These results proved the hypothesis which stated that the women will use English more than men to be wrong. When English online abbreviations are analysed with respect to gender it is found that male participants (81%) use significantly more English abbreviations than females (19%). However, findings demonstrate that among males, as the age of the participants increase, there is a tendency to use fewer English online abbreviations. Moreover, when language contact phenomena are analysed with respect to gender it is found that males had more lexical borrowings (60%) than females (40%) and the frequency of borrowed lexical items for female participants is nouns> verbs> others and for male participants it is nouns> others> verbs. Both females and males borrowed nouns the most but females borrowed verbs more than males which probably indicates the improved level of English of female participants as borrowing verbs is more difficult than borrowing other items (Myers-Scotton, 2006). Analysing CS with

respect to gender showed that male participants have more CS (66%) in their posts than females (34%) and both females and males have more intra-sentential CS than inter-sentential CS.

Analysing the use of English with respect to age and gender separately revealed relatively consistent results whereas weak relations are found when the data is analysed with respect to age and gender together. However, analysing English online abbreviations with respect to age and gender revealed that male high school students make up 63% of the abbreviations found in the data, which is much more than any other age and gender group. In lexical borrowing, it is found that among females as the age of the participants increase, there is a tendency of borrowing less words from English. It is found that male graduates have more lexical borrowings in their tweets than the other groups. Moreover, the amount of borrowing nouns and other items both for females and males decreased as the age of the participants increased. Borrowing verbs is more difficult than borrowing other items and this research showed that percentages of borrowing verbs increased among males and decreased among females as the age of the participants increased. These findings suggest that the level of English among male participants increase whereas among females it decreases as the age of the participants increases. Moreover, analysing the types of lexical borrowings revealed that among females, as the age of the participants increased, percentages of cultural borrowing decreased. It has been found that female university students have the highest amount of core borrowings in their tweets whereas male graduates have the highest amount of cultural borrowings. An implication of these findings is that female university students borrow more English words that exist in the Turkish language which is explained by the prestige hypothesis. Thus, female university students might be trying to have more prestige, gain approval and social status more than the other age and gender groups in Turkey. Male graduates by having more cultural borrowings in their tweets seems to be the group that borrows English words the most to fill in the lexical gap in the Turkish language. Finally, analysing code-switches found in the data with respect to age and gender has shown that among females, as the age of the participants increase, the amount of CS decrease. Also, it is found that male graduates used CS in their posts more than other groups. Similarly, when the types of CS are analysed, it is found that male graduates have the highest amount of inter-sentential and intra-sentential CS. The research has shown that male graduates borrow words from English and code-switch to English in their posts more than other groups in Turkey.

### 5.3 Topics in which English Appears

The third research question focused on the topics in which Turkish people in the study resort to English with respect to age and gender. In order to answer this question, topics of lexical borrowing, CS and posts in English have been analysed with respect to age and gender. The research has demonstrated that each group use English that is related to different topics to show their online glocal identities. When the contents of the borrowed lexical items from English are analysed, it is found that half of the words borrowed are related to internet and technology, followed by entertainment with 20%, daily life with 10% and education with 9%. When the contents of the tweets with CS are analysed, it was found that Turkish people in the study code-switch to English while posting about entertainment with 31%, followed by internet and technology with 28% and daily life with 12%. When the posts only in English are analysed it is found that 19% of the posts are about entertainment, followed by education and emotions with 16%, quotations and internet-technology with 11%. These results indicate that the contents of the tweets in which English appears vary in lexical and phrase and sentence level. On a lexical level, Turkish people in the research borrow words from English that are related to the internet and technology the most. On a phrase and sentence level they switch to English mainly about entertainment. In general, therefore, it seems that on a lexical level the effect of English on Turkish through internet and technology is the highest, and on a phrase and sentence level this changes to entertainment.

In this paper, lexical borrowing, CS and posts only in English are taken together and analysed with respect to each topic to find the influence of English upon the Turkish language. It is found that Turkish people in the study borrow English words, code-switched to English or write only in English mainly when they are posting about internet and technology with 30%, followed by entertainment with 23% and education with 10%. The evidence from this study suggests that Turkish society is affected the most through mass media including newspapers, radio, cinema, TV, computer and the Internet, more than the education system and direct communication. Most of the tweets about entertainment found in the data are related to movies, series and music which probably indicates the effect of popular culture of the USA upon Turkish society. Interestingly, it is observed that Turkish people participated in the research expressed their emotions in English with 16% which might indicate that expressing feelings in another

language is easier for Turkish people. Nonetheless, further research should be conducted to find out why Turkish people prefer expressing their emotions in English rather than Turkish.

Firstly, when the contents of the tweets in which English appears are analysed with respect to age, it is found that results varied for each group. All the age groups borrowed words related to the internet and technology the most, and as the age of the participants increased, the amount of lexical borrowings about entertainment, internet-technology and sports decreased with high correlations. Moreover, it is found that high school students code-switch to English about the internet and technology the most; meanwhile university students, graduates and middle-aged adults do so about entertainment. When posts only in English are analysed it is found that high school and university students have posts in English the most about entertainment, graduates about education and middle-aged adults about politics and news. Correlations indicate that as the age of the participants increase, the amount of CS about daily life and internet-technology decrease and the posts in English related to politics-news increase.

When lexical borrowing, CS and posts in English are analysed together it was seen that the influence of English on high school students has been observed mainly through internet-technology-, followed by entertainment- and finally daily life- related tweets. The influence of English on university students is mainly observed in the tweets about entertainment, followed by internet-technology and finally education. Among graduates the influence of English is seen mainly in their tweets about internet-technology, followed by entertainment and finally about business-work. Middle-aged adults use English the most in their posts about politics-news, followed by internet-technology and finally about education. Taken together, we could conclude that all the age groups in Turkey are affected by English mainly through internet-technology and there is a considerable effect through entertainment among high school students, university student and graduates.

Secondly, analysing the contents of the tweets in which English appears with respect to gender revealed that females have lexical borrowings related to internet and technology with 54%, followed by education 18% and entertainment with 14% whereas males have lexical borrowings related to internet and technology with 50%, followed by entertainment with 24% and daily life with 13%. When CS topics are analysed with respect to gender it is found that females have entertainment-related CS in their posts with 44%, followed by daily life with 25% and internet-technology and business with 12% whereas males had CS in their posts related to

internet-technology with 36%, followed by entertainment with 25% and emotions and sports with 7%. Finally, when posts in English are analysed, the data indicate that females have posts in English related to entertainment the most with 21%, followed by location and travelling with 15% and politics-news with 12% whereas males have more posts in English related to education with 19%, followed by entertainment with 18%, emotions with 18% and internet-technology with 15%. The reason why tweets in English about education to have the highest percentage could be because some of the participants are teachers at schools where the medium of instruction is English. In this research, participants' occupations are not taken into account. That is why it is important to mention that further research could be conducted to find the effect of participants' occupations on their use of English.

When lexical borrowing, CS and posts in English are taken together, findings indicate that the influence of English among females is entertainment> internet-technology> daily life whereas among males it is internet-technology> entertainment> education. These findings contribute to our understanding of differences between males and females participated in the study communicating online. The results of this study indicate that the influence of English is different among females and males. Females are more influenced by English through entertainment whereas males are influenced through internet-technology. The reason why females and males resort to English in their tweets about different topics, might be because they probably want to show their online glocal identities related to different topics.

Finally, in this study, the content of lexical borrowings, CS and posts in English are analysed with respect to age and gender together. In lexical borrowing, it is seen that male graduates borrow more words related to business-work, daily life, entertainment and internet-technology than other groups whereas female graduates have more lexical borrowings related to politics-news. Female university students have more lexical borrowings related to education and male high school students about sports. Interestingly, only male graduates and female high school students borrowed words while expressing their feelings. The reasons for these results are not yet completely understood but we could say that each group borrowed English words related to different topics to show their online glocal identities in a different way. When CS contents are analysed with respect to age and gender the data revealed that male graduates code-switch to English the most while they are writing about their emotions, entertainment, internet-technology and politics-news whereas female graduates code-switch to English in their posts related to business-work more than the other groups. Male university students code-switch to



English while writing about location-travelling and sports and female high school students about daily life activities than the other groups. Interestingly, female and male university students and male middle-aged adults code-switch to English in their posts related to education with the same amount (30%). Moreover, analysing posts in English topics with respect to age and gender revealed that male graduates write tweets in English related to daily life, education, emotions, entertainment, internet-technology, quotations and sports more than other groups whereas female graduates write in English related to business-work and location-travelling more. Interestingly it is found that female middle-aged adults have more posts in English about politics whereas male middle-aged adults have none.

When lexical borrowing, CS and posts in English are analysed all together to see the influence of English with respect to age and gender, it is observed that for each group the influence varied. Among male university students and male graduates, English has more influence through internet-technology whereas among female university students and female graduates, entertainment has more influence. The influence through internet-technology and entertainment is equal among male high school students and female middle-aged adults. Moreover, the influence of English through education is observed more among female university students and male-middle aged adults. The influence through politics, news and social events are more among female graduates and female middle-aged adults whereas business-work related influence is seen the highest among female graduates followed by the male graduates.

Thus, this study has found the above-mentioned results, several limitations need to be acknowledged. For instance, in this research socioeconomic statuses, occupations and educational backgrounds of the participants are not considered. A replication of this research using a much larger testing pool with participants from different socioeconomic statuses, occupations and educational backgrounds could give us more insight how these variables affect the use of Netspeak and English in CMC. Moreover, Turkish people's motivations, what they want to achieve by using Netspeak and English could directly be asked to the participants by questionnaires or interviews. Furthermore, research to find out the extent to which participants are conscious of borrowing English words or code-switching to English could be done as choosing the less complex language systems is usually an unconscious activity (Clyne, 1991b, p. 167). Finally, this study has shown that Turkish people express their emotions in English which might indicate that expressing feelings in another language is easier for Turkish people.

However, more research on this topic needs to be undertaken to find out why Turkish people prefer expressing their emotions in English rather than Turkish.

#### **5.4 Summing Up**

The research has revealed quite remarkable findings on the differences in the ways social groups in Turkey project an online identity on Twitter. The most significant ones are connected to the frequency in the use of Turkish Netspeak, use of English and the choice of topics over which native speakers of Turkish resort to English with respect to identity construction through the use of Turkish Netspeak, the younger generations show a stronger concern with projecting an international identity, as knowledgeable in CMC and rightful members of the community of global social site users. They socialize through social sites, by adapting the language to their needs by creating new variations as youngsters from any Western country do.

Significantly, the research indicates that each social group in Turkey have adopted the new terminology from English to refer to technology and Internet activity. The use of English related to the Internet and technology projects an identity of 21<sup>st</sup> century citizens; international and updated in technology, and, thus, membership of technologically advanced communities. Moreover, the choice of topics over which the native speakers of Turkish in the study resort to English indicates that exposure to English via entertainment (English movies, series, songs, and so forth) is as powerful as via the Internet and technology. The Turks in the study, especially those from the younger generations, resort to English in their posts related to entertainment, and seem to project an identity that is culturally updated and international, showing bids for memberships of international, global, and glocal cultures.

Remarkably, the use of English for identity construction is stronger among the graduates in the study, probably because they are working for international companies. They seem to exclude an exclusively monolingual Turkish audience, and project both personal and corporate international identities while communicating online. Furthermore, especially the female graduates and middle-aged female adults in the study, post tweets exclusively in English when they post about politics, news and social events, seemingly projecting an identity of international, politically and socially active modern 21<sup>st</sup> century women, which seems to exclude monolingual speakers of Turkish from their intended audience

In conclusion, the Turkish people in the study use English as a primary means of showing their global presence. In this way, they translate their local cultures and identities to an international, modern and updated community of `practice, using English to identify themselves as rightful members of a global 21<sup>st</sup> century, technologically and culturally updated, community. In other words, the findings reported above suggest that Turkish people in the research use both English and computer-mediated communication as crucial means of interaction and socialization, in this way constructing for themselves an identity of members of a borderless, glocal community.

## SUMMARY

### 1. INTRODUCTION

Today, there are 3.77 billion internet users, 2.80 billion social media users, 4.92 billion mobile users and 2.56 billion mobile social media users worldwide (Kemp, 2017). How can someone differentiate oneself from this huge pack and stand out or do the opposite, show that they belong to a specific community? Without a doubt, the use of language in computer mediated communication (CMC) has an important effect on online self-presentation. When people speak, they do not only exchange information but also give information about themselves and how they relate to the world (Northrup, 2013). Is the way teenagers and middle-aged adults, and women and men use language in social networking sites to project their online global and local identities same or different? This research has attempted to answer these questions for native speakers of Turkish.

It is evident that language plays an essential role in online identity presentation in CMC. Prior studies have noted the importance of language in CMC and the electronic revolution (Crystal, 2006) with the information and communication technologies but little importance has been given to the Turkish language in CMC. This study attempts to fill in this gap in literature by analysing Turkish people's posts in Twitter.

English is used as an international and global language and it has become the preferred language of online communication (Rosenhouse & Kowner, 2008). Currently, English is the most commonly taught second language in Turkey (Bayyurt, 2006; 2012) and connects Turkey to the outside world. In this research, the use of English by Turkish native people in CMC explored, with a focus on language contact phenomena. Words taken from English and used in Turkish language are taken as lexical borrowings and English phrases used in Turkish posts are analysed as code-switches. Until now, little importance has been given to the use of English by Turkish people. To our knowledge, this is the first study to examine Turkish people lexical borrowing from English, types of lexical borrowings; cultural and core borrowings, borrowing lexical items; nouns, verbs and other items, code-switching to English, types of code-switching: inter-sentential code-switching and intra-sentential code-switching, and the contents of the posts in which Turkish people prefer using English instead of Turkish with respect to two variables: age and gender.

Netspeak is a term introduced by David Crystal (2006) to refer to the digital form of any language. This research for the first time aims to explore whether the variables of age and gender affect the use of Turkish Netspeak: non-standard spelling, repeating characters to make emphasis, and Turkish online abbreviations. The language patterns of individuals, such as borrowing words from other languages or switching between languages are ways of demonstrating online identities (Myers-Scotton, 2006). The use of Netspeak shows group membership and identity, as the use of Netspeak changes from group to group (Crystal, 2004). This paper argues that Turkish people use non-standard forms of the Turkish language to show group membership with local groups, and borrow lexical items from English and code-switch to English to show their global identities. In this research, the term “online glocal identity” is used as online identity is not only local but also global.

In order to analyse how Turkish native speakers use Netspeak and English on Twitter with respect to age and gender to show their online glocal identities, several research questions are addressed.

1. Do the variables of age and gender affect the use of Netspeak by native speakers of Turkish in their tweets in Turkish?, If so, can this be connected to different online glocal identity construction concerns?

What are the effects of CMC on the written Turkish language with respect to age and gender?

2. Do age and gender have a bearing on the use English by native speakers of Turkish as a strategy to project a certain desired online glocal identity on Twitter?

If so, in which ways is this reflected in language contact phenomena such as lexical borrowing and code-switching?

3. Do the variables of age and gender also affect the type of topics over which native speakers of Turkish resort to English in their tweets?

What are the routes of dissemination of English in Turkey with respect to age and gender?

In order to ascertain the answers to these research questions, the following hypotheses were elaborated at the beginning of this research project:

1. Turkish people use English and Netspeak as a strategy to project a certain desired online glocal identity on Twitter. There is a correlation between age and the use of English and Netspeak by native speakers of Turkish on Twitter: Younger Turkish native speakers will use English and Netspeak more frequently than older Turkish people.
2. There is also a correlation between gender and the use of English and Netspeak by native speakers of Turkish in their tweets: females are expected to use English more frequently than males, while males are expected to use Netspeak more often than females.
3. Turkish native speakers are expected to use English more frequently in their tweets related to internet and technology. In this research Turkish people are expected to use English terms related to technology more often than related to other topics because of the need for the new terminology due to technological changes.

## 2. METHODOLOGY

In this research, there are 80 participants; 40 men and 40 women. All the tweets by the 80 participants for three months, from October 2014 to December 2014, were taken from their home page. Although around 10,000 tweets were gathered from participants' homepages, only around 5,500 tweets were analysed, as only the tweets written by the participants were taken in to consideration, disregarding those consisting exclusively in re-tweets of messages from other participants. These posts were then divided into three groups: a) tweets in Turkish only, b) tweets in Turkish including English words and phrases, and c) tweets only in English. In the data, there are 4,614 tweets in Turkish only, 355 tweets in Turkish and English, and 309 tweets in English only. In each section, results are presented in percentages with graphs and are analysed in depth according to the variables of age and gender, with examples taken from the data.

### 3. ANALYSIS, RESULTS, AND DISCUSSION

The evidence from this study suggests that the use of Turkish Netspeak is more common among younger users than among elder ones. High school students have the highest amount of non-standard spelling and repeated characters for emphasis in their posts, and these amounts decrease as the age of the participants increases from high school students to university students, and finally to graduates. However, middle-aged adults are the ones with the smallest number of spelling mistakes and repeated characters, and thus seem to use more standard language than any other age group. This suggests that there is a generation gap in the use of Turkish Netspeak, since using Turkish Netspeak to show online glocal identity might be a fashion among the younger generations. The hypothesis of this paper as stated in the introduction, that younger people will use Netspeak more often than older people, has thus been verified. Regarding Turkish online abbreviations, the findings suggest that middle-aged adults use Turkish abbreviations more than any other age group (59%) and these are mainly related to politics. Abbreviations of political party names such as AKP, CHP or HDP are used extensively by middle-aged adults, whereas abbreviations or swear words such as *amk* (fuck), or *bsg* (go fuck yourself) are used extensively by the younger generations, especially by the male high school students.

Additionally, analysing Turkish Netspeak with respect to gender has revealed that 44% of the female posts have non-standard spelling, whereas 56% of the male posts do. A reasonable explanation for females' fewer spelling mistakes might be that they want to gain approval and social status or because they are socialized to speak more correctly. However, interestingly, it is found that there is no difference in repeating characters between females (50%) and males (50%). Moreover, it is found that males (74%) use significantly more Turkish abbreviations than females (26%). Thus, the hypotheses about gender and use of Netspeak have been verified. As the evidence suggests that the males in the study, especially male high school students, use more Netspeak than females.

In the research, language contact between English and Turkish on Twitter has also been analysed, and it has been found that the use of English increases from high school students to university students and to graduates, but reaches its lowest point with the middle-aged adults. These results suggest that the hypothesis that younger Turkish native speakers will use English is wrong. Moreover, it is found that the males in the study have posts in Turkish and English

(7%) and posts only in English (6%) more than females. Similarly, these results also suggest that the hypothesis women will use English more than men is wrong, too. Furthermore, the evidence from this study suggests that English online abbreviations are widely used by high school students. These abbreviations are mainly related to games, technology and the social networking site Twitter.

A further aim of the present study was to find out why Turkish people borrow words from English with respect to age and gender. Analysing lexical borrowing types on Twitter has shown that cultural borrowings – new concepts that do not exist in Turkish language – are taken from English with 52%, more than the equivalent words that already exist in Turkish, core borrowings with 48%. Most of the cultural borrowings found in the data are Internet- and technology- related words. Moreover, it is found that high school students and graduates take new concepts that do not exist in the Turkish language – cultural borrowings – from English more than the words that already exist in Turkish language– core borrowings. On the other hand, the Turkish native university students and middle-aged adults in the study seem to borrow more English words that have equivalents in Turkish, probably because of the need of show greater prestige or because of their intragroup motivations.

The third research question focused on the topics in which Turkish people resort to English. The results indicate that the Turks in the study borrow English words, code-switch to English, or write only in English mainly when they are posting about the Internet and technology (30%), followed by entertainment (23%) and education (10%). These results suggest that the Internet and technology are the main routes of dissemination of English in Turkey, followed by entertainment and, finally, education. Aon the other hand, anaalysing lexical borrowing and code-swithing topics has revealed that, on a lexical level, the effect of English on Turkish through the Internet and technology is the highest, while on a phrase and sentence level this changes to entertainment. Furthermore, the research suggests that each age and gender group use English to post about different topics. The findings indicate that the influence of English among females is most noticeable on topics dealing with entertainment> internet-technology> daily life, whereas among males it is internet-technology> entertainment> education. In other words, the females in the study seem to be more influenced by English through entertainment, whereas males seem to be more strongly influenced through internet and technology. The reasons for the results no doubt deserve further investigation, but we might say that each group



resort to English for posts on different topics, a fact which can be connected to the projection of their online glocal identities in different ways.

#### 4. CONCLUSION

The research has revealed quite remarkable findings on the differences in the ways social groups in Turkey project an online identity on Twitter. The most significant ones are connected to the frequency in the use of Turkish Netspeak, use of English and the choice of topics over which native speakers of Turkish resort to English with respect to identity construction through the use of Turkish Netspeak, the younger generations show a stronger concern with projecting an international identity, as knowledgeable in computer-mediated communication and rightful members of the community of global social site users. They socialize through social sites, by adapting the language to their needs by creating new variations as youngsters from any Western country do.

Significantly, the research indicates that each social group in Turkey have adopted the new terminology from English to refer to technology and Internet activity. The use of English related to the Internet and technology projects an identity of 21<sup>st</sup> century citizens; international and updated in technology, and, thus, membership of technologically advanced communities. Moreover, the choice of topics over which the native speakers of Turkish in the study resort to English indicates that exposure to English via entertainment (English movies, series, songs, and so forth) is as powerful as via the Internet and technology. The Turks in the study, especially those from the younger generations, resort to English in their posts related to entertainment, and seem to project an identity that is culturally updated and international, showing bids for memberships of international, global, and glocal cultures.

Remarkably, the use of English for identity construction is stronger among the graduates in the study, probably because they are working for international companies. They seem to exclude an exclusively monolingual Turkish audience, and project both personal and corporate international identities while communicating online. Furthermore, especially the female graduates and middle-aged female adults in the study, post tweets exclusively in English when they post about politics, news and social events, seemingly projecting an identity of

international, politically and socially active modern 21<sup>st</sup> century women, which seems to exclude monolingual speakers of Turkish from their intended audience

In conclusion, the Turkish people in the study use English as a primary means of showing their global presence. In this way, they translate their local cultures and identities to an international, modern and updated community of `practice, using English to identify themselves as rightful members of a global 21<sup>st</sup> century, technologically and culturally updated, community. In other words, the findings reported above suggest that Turkish people in the research use both English and computer-mediated communication as crucial means of interaction and socialization, in this way constructing for themselves an identity of members of a borderless, glocal community.

## RESUMEN EN ESPAÑOL

### 1. INTRODUCCIÓN

Hoy en día, hay 3,770 millones de usuarios de Internet, 2,80 millones de usuarios de redes sociales, 4,92 millones de usuarios de móviles y 2,56 millones de usuarios de redes sociales móviles en todo el mundo (Kemp, 2017). ¿Cómo puede alguien diferenciarse de este enorme grupo y destacarse? ¿O hacer lo contrario, demostrar que pertenecen a una comunidad específica? Sin lugar a dudas, el uso del lenguaje en la comunicación mediada por ordenador (en inglés *Computer Mediated Communication, CMC*) tiene un efecto importante en la auto presentación en línea. Cuando la gente habla, no sólo intercambia información, sino que también da información sobre sí misma y cómo se relaciona con el mundo (Northrup, 2013). ¿Utilizan de la misma manera el lenguaje los adolescentes y los adultos de mediana edad y las mujeres y los hombres el lenguaje en las redes sociales para proyectar sus identidades globales y locales en línea? Esta investigación ha intentado responder a estas preguntas respecto a los hablantes nativos del idioma turco.

Es evidente que el lenguaje desempeña un papel esencial en la presentación de la identidad en línea en la comunicación mediada por ordenador. Estudios previos han señalado la importancia del lenguaje en la comunicación mediada por ordenador y la revolución electrónica (Crystal, 2006) con las tecnologías de la información y la comunicación, pero apenas existen estudios de este tipo relativos al idioma turco. Este estudio intenta comenzar a superar esa laguna en la literatura analizando los mensajes (tweets) de los hablantes nativos de turco en Twitter.

El inglés se utiliza como un lenguaje internacional y global y se ha convertido en el idioma preferido en la comunicación en línea (Rosenhouse&Kowner, 2008). Actualmente, el inglés es el segundo idioma más utilizado en Turquía (Bayyurt, 2006; 2012) y conecta a Turquía con el mundo exterior. En esta investigación, se explica el uso del inglés en la comunicación mediada por ordenador por los nativos turcos en tanto que un fenómeno de contacto. Las palabras tomadas del inglés y utilizadas en el idioma turco en la interacción mediada por ordenador se toman como préstamos léxicos, y las frases en inglés que se utilizan en los mensajes turcos se analizan como cambio de código (*code-switching, CS*). Hasta ahora, se ha dado poca importancia al uso del inglés por los turcos. Este estudio examina los préstamos léxicos del turco al inglés, los tipos de préstamos léxicos; préstamos culturales (en inglés *cultural borrowing*) y básicos (en inglés *core borrowing*), es decir, préstamos de elementos léxicos (sustantivos y verbos) al

inglés, tipos de cambios de código: – *inter- e intra-oracional* –, y contenidos de los mensajes en los que los turcos prefieren usar el inglés en lugar del turco con respecto a dos variables: la edad y el género.

*Netspeak* es un término introducido por David Crystal (2006) que se refiere a la forma digital de cualquier idioma. Esta investigación tiene también como objetivo explorar por primera vez si las variables de edad y género afectan el uso del *Netspeak* en turco: ortografía no estándar, caracteres repetidos para hacer énfasis y uso de abreviaturas de palabras turcas. Los patrones lingüísticos de los individuos, como tomar prestado palabras de otros idiomas o cambiar entre lenguas, son formas de proyectar identidades en línea (Myers-Scotton, 2006). En este sentido, el uso de *Netspeak* es un indicador de pertenencia a grupos y de identidad, porque el uso de *Netspeak* cambia de grupo a grupo (Crystal, 2004). En este artículo se argumenta que los turcos usan formas no estándar del idioma turco para mostrar la pertenencia a grupos locales, y toman elementos léxicos del inglés y cambian el código al inglés para mostrar sus identidades globales. En esta investigación, el término "identidad glocal en línea" se utiliza para hacer referencia a la identidad en línea no sólo local sino también global.

Con el fin de analizar cómo los hablantes nativos turcos utilizan la *Netspeak* y el inglés en Twitter con respecto a la edad y el género para proyectar identidades glocales en línea, se plantean las siguientes preguntas de investigación.

1. ¿Las variables de edad y género afectan el uso de *Netspeak* por parte de los hablantes nativos de turco en sus tweets en turco?, Si es así, ¿puede estar esto conectado a diferentes problemas de construcción de la identidad glocal en línea? ¿Cuáles son los efectos de comunicación mediada por ordenador en la lengua escrita turca con respecto a la edad y el género?

2. ¿La edad y el género influyen en el uso del inglés de los hablantes nativos de turco como estrategia para proyectar una cierta identidad glocal en línea en Twitter? En caso afirmativo, ¿de qué manera se refleja esto en fenómenos de contacto lingüístico como el préstamo lexical y el cambio de código?

3. ¿Las variables de edad y género también afectan al rango de temas sobre los cuales los hablantes nativos de turco recurren al inglés en sus tweets?

¿Cuáles son las rutas de difusión del inglés en Turquía con respecto a la edad y el género?

Para determinar las respuestas a estas preguntas de investigación, se elaboraron las siguientes hipótesis al inicio de este proyecto de investigación:

1. Los turcos usan inglés y *Netspeak* como una estrategia para proyectar una determinada identidad glocal en línea en Twitter. Hay una correlación entre la edad y el uso de inglés y la *Netspeak* por hablantes nativos de turco en Twitter: Los hablantes nativos turcos más jóvenes utilizarán inglés y *Netspeak* con más frecuencia que los turcos de mayor edad.
2. Existe también una correlación entre el género y el uso del inglés y *Netspeak* por hablantes nativos de turco en sus tweets: se espera que las mujeres usen el inglés con más frecuencia que los varones, y que los varones utilicen *Netspeak* más a menudo que las mujeres.
3. Se anticipa que los hablantes nativos turcos usen el inglés con más frecuencia en sus tweets relacionados con Internet y la tecnología. En esta investigación se espera que los turcos usen más términos ingleses cuando hablen de temas relacionados con la tecnología que cuando aborden otros temas, debido a la necesidad que los cambios tecnológicos imponen sobre la nueva terminología.

## 2. METODOLOGÍA

En esta investigación, hay 80 participantes; 40 hombres y 40 mujeres. Para el estudio, se recogieron todos los tweets de 80 participantes durante tres meses, de octubre de 2014 a diciembre de 2014, de su página de inicio. Aunque se recogieron alrededor de 10.000 tweets, sólo se han analizado unos 5.500 tweets, ya que sólo fueron tomados en consideración los tweets escritos por los participantes, y no aquellos que consistían tan solo en el reenvío de mensajes emitidos por otros usuarios de la plataforma (*re-tweets*). Los posts se dividieron en tres grupos: a) tweets en turco, b) tweets combinando el turco con palabras y frases en inglés, y c) tweets sólo en inglés. Los datos incluyen 4.614 tweets en turco, 355 tweets en turco e inglés y 309 tweets escritos únicamente en inglés. En cada sección, los resultados se presentan en porcentajes con gráficos y se analizan en profundidad de acuerdo con la edad y el género de los emisores, con ejemplos recogidos de los datos.

### 3. ANÁLISIS, RESULTADOS Y DISCUSIÓN

La evidencia de este estudio sugiere que el uso de *Netspeak* en turco es más común entre los usuarios más jóvenes que entre los de mayor edad. Los estudiantes de secundaria participantes en el estudio son los que usan ortografía no estándar con mayor frecuencia y los caracteres repetidos para el énfasis en sus mensajes, mientras que esta frecuencia disminuye a medida que aumenta la edad de los participantes - de estudiantes de secundaria a universitarios y finalmente a los graduados. Los adultos de mediana edad, con la menor cantidad de errores ortográficos y caracteres repetidos, parecen usar un lenguaje más estándar que cualquier otro grupo de edad. Esto sugiere que hay una brecha generacional en el uso de *Netspeak* en turco, y que su uso en la proyección de una identidad glocal en línea podría ser una tendencia más afianzada entre las generaciones más jóvenes. La hipótesis de este estudio, como se indica en la introducción, de que los jóvenes utilizarán *Netspeak* más a menudo que las personas mayores, se ha, pues, verificado. En cuanto a las abreviaturas turcas en línea, los hallazgos sugieren que los adultos de mediana edad (45-64) usan las abreviaturas turcas más que cualquier otro grupo de edad (59%) y están relacionados principalmente con la política, pues a menudo se trata de abreviaturas de nombres de partidos políticos como AKP, CHP o HDP, utilizados extensamente por adultos de mediana edad, mientras que las abreviaturas o palabras de juramento como *amk* (“joder!”), *bsg* (“ir a la mierda”) son utilizados ampliamente por las generaciones más jóvenes, especialmente por estudiantes varones de secundaria.

Por otro lado, el análisis del *Netspeak* turco con respecto al género ha revelado que el 44% de los posts femeninos se escriben usando ortografía no estándar, mientras que el 56% de los masculinos usan ortografía no estándar. Una explicación razonable para el hecho de que las mujeres participantes en el estudio escriban con menos errores ortográficos puede ser porque quieren obtener aprobación y estatus social o porque están socializadas para hablar más correctamente. Sin embargo, curiosamente, se encuentra que no hay diferencia en el uso de caracteres repetidos entre las mujeres (50%) y los hombres (50%). Además, se observa que los varones (74%) utilizan significativamente más abreviaturas turcas que las mujeres (26%). Por lo tanto, las hipótesis sobre el género y el uso de *Netspeak* se han verificado, es decir la evidencia presentada en este estudio sugiere que los hombres, especialmente los estudiantes varones de secundaria, utilizan *Netspeak* más que las mujeres.

En esta investigación se ha analizado también el contacto de los idiomas inglés y turco en Twitter, y se ha comprobado que el uso del inglés aumenta desde los estudiantes de secundaria hasta los estudiantes universitarios y graduados, pero alcanza su punto más bajo entre los adultos de mediana edad. Estos resultados demuestran por tanto que la hipótesis de que los hablantes nativos turcos más jóvenes utilizarán el inglés es incorrecta, pues son los recién graduados universitarios quienes lo hacen con mayor frecuencia. Por otra parte, se observa que los varones turcos en el estudio tienen publicaciones en turco e inglés (7%) y publican mensajes sólo en inglés (6%) más frecuentemente que las mujeres. Del mismo modo, estos resultados sugieren que la hipótesis de que estadísticamente las mujeres utilizarán más inglés que los hombres, es incorrecta. Además, la evidencia de este estudio sugiere que las abreviaturas en línea en inglés en Twitter son ampliamente utilizadas por estudiantes de secundaria y están principalmente relacionadas con juegos, entretenimiento, tecnología.

La tercera pregunta de investigación se centra en los temas para los cuales los turcos recurren al inglés. Los resultados indican que los turcos toman prestadas palabras inglesas, cambian el código al inglés o escriben sólo en inglés en Twitter, principalmente cuando publican sobre Internet y tecnología (30%), seguido de entretenimiento (23%) y educación (10%). Estos resultados sugieren que Internet y la tecnología es la principal vía de difusión del inglés en Turquía, seguidos por el entretenimiento y finalmente la educación. Sin embargo, el análisis de los temas de endeudamiento léxico y de codificación ha revelado que, en un nivel léxico, la influencia del inglés sobre el turco a través de Internet y la tecnología es el más alto, mientras que, a nivel de nivel de frase y frase, esto cambia al tema del entretenimiento. Además, la investigación ha demostrado que cada grupo de edad y género utiliza el inglés en relación a distintos temas. Los hallazgos indican que la influencia del inglés entre las mujeres participantes en el estudio se da en este orden: entretenimiento > internet-tecnología > vida cotidiana, mientras que entre los hombres es: tecnología /Internet > entretenimiento > educación. En otras palabras, las mujeres reciben más influencia del inglés a través del entretenimiento mientras que los hombres son influenciados a través de la tecnología /Internet. Las razones de los resultados pueden ser variadas y sin duda merecen ser investigadas en mayor profundidad, pero podríamos decir que cada grupo recurre al inglés en relación con diferentes temas para proyectar identidades locales en línea de una manera diferente.

#### 4. CONCLUSIÓN

La investigación ha revelado descubrimientos bastante notables sobre las diferencias en las formas en que los grupos sociales en Turquía proyectan su identidad online en Twitter. Los más significativos están relacionados con la frecuencia en el uso del Netspeak turco, el uso del inglés y la elección de temas sobre los cuales los hablantes nativos de turco utilizan el inglés. Con respecto a la construcción de la identidad a través del uso del Netspeak turco, las generaciones más jóvenes muestran una mayor preocupación por proyectar una identidad internacional, como conocedor en la comunicación mediada por ordenador y como parte de la comunidad de usuarios de websites globales. Se relacionan a través de websites sociales, adaptando el lenguaje a sus necesidades, creando nuevas variaciones como lo hacen los jóvenes de cualquier país occidental.

Significativamente, la investigación indica que cada grupo social en Turquía ha adoptado una nueva terminología del inglés para referirse a la tecnología y a la actividad en Internet. El uso del inglés relacionado con Internet y la tecnología proyecta una identidad de ciudadanos del siglo XXI, una identidad internacional y actualizada en tecnología y, por lo tanto, perteneciente a las comunidades avanzadas tecnológicamente. Por otra parte, la elección de temas sobre los cuales los hablantes nativos de turco en el estudio recurren al inglés, indica que la exposición al idioma a través del entretenimiento (películas, series, canciones en inglés, etc.) es tan poderosa como a través de Internet y la tecnología. Los turcos en el estudio, especialmente los de las generaciones más jóvenes, recurren al inglés en sus mensajes relacionados con el entretenimiento, y parecen proyectar una identidad culturalmente actualizada e internacional, mostrando interés por pertenecer a culturas internacionales, globales y glocales.

Sorprendentemente, el uso del inglés para la construcción de una identidad es más fuerte entre los licenciados, probablemente porque estén trabajando para compañías internacionales. Excluyen a un público turco exclusivamente monolingüe, y proyectan tanto las identidades internacionales personales como corporativas mientras se comunican en línea. Además, especialmente las mujeres licenciadas y adultas de mediana edad en el estudio, publican tweets exclusivamente en inglés cuando escriben sobre política, noticias y eventos sociales. Aparentemente proyectan una identidad de mujeres modernas y política y socialmente activas del siglo XXI, lo que parece excluir a los hablantes monolingües de turco de su público objetivo.



En conclusión, los turcos en el estudio usan el inglés como un medio primario de mostrar su presencia global. De esta manera, traducen su cultura e identidades locales en una comunidad internacional, moderna y actualizada, usando el inglés para identificarse como miembros legítimos de una comunidad global del siglo XXI, tecnológica y culturalmente actualizada. En otras palabras, los hallazgos mostrados anteriormente sugieren que los turcos participantes en el estudio usan la comunicación online y la informática como medios cruciales de interacción y socialización, construyendo así una identidad como miembros de una comunidad glocal sin fronteras.

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