



T.C.

BURSA ULUDAG UNIVERSITY

INSTITUTE OF EDUCATIONAL SCIENCES

DEPARTMENT OF ENGLISH LANGUAGE EDUCATION

**WILLINGNESS TO COMMUNICATE IN EFL IN THE CLASSROOM AND
INFORMAL DIGITAL CONTEXT: THEIR ASSOCIATIONS WITH THE BIG-FIVE
PERSONALITY TRAITS**

M.A. THESIS

Nurdan FİDAN

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Assist. Prof. Dr. Çiğdem KARATEPE

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2021

YÖNERGEYE UYGUNLUK ONAYI

“Willingness to Communicate in EFL in the Classroom and Informal Digital Context: Their Associations with the Big-Five Personality Traits” adlı Yüksek Lisans tezi, Bursa Uludağ Üniversitesi Eğitim Bilimleri Enstitüsü tez yazım kurallarına uygun olarak hazırlanmıştır.

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Bu çalışmadaki tüm bilgilerin akademik ve etik kurallara uygun bir şekilde elde edildiğini beyan ederim.

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28.05.2021



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1. Kaynakça hariç
2. Alıntılar hariç
3. 5 kelimeden daha az örtüşme içeren metin kısımları hariç

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Tez: Sınıf İçinde ve İnfomal Dijital Ortamda İngilizce İletişim Kurmaya

İsteklilik ile Bunların Beş Büyük Kişilik Özelliğine Göre Yordanması

Danışmanı: Dr. Öğr. Üyesi Çiğdem KARATEPE

SINIF İÇİNDE VE İNFORMAL DİJİTAL ORTAMDA İNGİLİZCE İLETİŞİM KURMAYA İSTEKLİLİK İLE BUNLARIN BEŞ BÜYÜK KİŞİLİK ÖZELLİĞİNE GÖRE YORDANMASI

Yabancı dil öğrenme süreci farklı belirleyicileri olan çok yönlü bir süreçtir. Yabancı dil öğrenmenin asıl amaçlarından olan iletişim kurmak, iletişim kurmaya isteklilik olgusunun ve etken faktörlerinin incelenmesi ihtiyacını doğurmuştur. Bu amaçla, bu çalışma 170 üniversite mühendislik öğrencisi ile yabancı dil olarak İngilizce öğreniminde sınıf içinde ve infomal dijital ortamda İngilizce iletişim kurmaya isteklilik ile bunların beş büyük kişilik özellikleriyle aralarındaki ilişkinin incelenmesini amaçlamıştır.

Amaca ulaşmak için, kişisel bilgi formu, sınıf içinde İngilizce iletişim kurmaya isteklilik, informal dijital ortamda İngilizce iletişim kurmaya isteklilik ve beş büyük kişilik özelliği olmak üzere dört farklı ölçek uygulanmıştır. Daha sonra, ölçekleri daha önce doldurmuş olan 20 öğrenci ile mülakat yapılmış ve konuyla ilgili daha derin bilgi sahibi olmak amaçlanmıştır. Nicel araştırma verileri SPSS 24 ve AMOS 24 kullanılarak, nitel araştırma verileri de içerik çözümleme metodu kullanılarak analiz edilmiştir.

Sonuçlar araştırmaya katılan öğrencilerin İngilizce iletişim kurma istekliliklerinin hem sınıf içinde hem de informal dijital ortamda kısmen yüksek olduğunu göstermiştir. Bununla birlikte, informal dijital ortamda İngilizce iletişim kurmaya isteklilik seviyesinin sınıf içinde İngilizce iletişim kurmaya isteklilik seviyesine göre daha fazla olduğu görülmüştür. Ayrıca, sınıf içinde ve informal dijital ortamda iletişim kurma istekliliğini etkileyen farklı faktörler ortaya çıkmıştır.

Beş büyük kişilik özelliklerinden dışadönüklük boyutunun öğrencilerin sınıf içinde İngilizce iletişim kurma istekliliklerine doğrudan pozitif bir etkisi olduğu, nevroitiklik boyutunun ise informal dijital ortamda İngilizce iletişim kurmaya doğrudan pozitif bir etkisinin olduğu sonucuna ulaşılmıştır. Algılanan yeterlilik seviyesi ve yurtdışında bulunma faktörlerinin ise sınıf içinde ve informal dijital ortamda iletişim kurma istekliliği üzerine anlamlı pozitif etkilerinin olduğu bulunmuştur. Öte yandan, yaş, cinsiyet, sosyal medya kullanım sıklığı ve çevrimiçi oyun oynama sıklığı ile iki bağlamda da İngilizce iletişim kurma istekliliği arasında anlamlı bir bağ bulunamamıştır.

Bütün bunlar dikkate alındığında, informal dijital ortamın kendine özgü cazip yapısal özellikleri de hesaba katılarak yabancı dil olarak İngilizce öğrenen öğrencilerin kaygı seviyelerinin bu ortamda daha az, özgüvenlerinin ve algılanan iletişim becerisi seviyelerinin ise yüksek olması, onların İngilizce iletişim kurma istekliliğini artırmaktadır. Dolayısıyla, sınıf içinde de öğrencilerin informal dijital ortamda İngilizce öğrenme aktiviteleri (sınıfta teknoloji

kullanımı, örneğin; çevrimiçi oyun oynatmak, mail yoluyla İngilizce yazışmak, paylaşımlara İngilizce yorum yazmak) ile etkileşim içinde olmasını sağlamak, onların sınıf içinde de İngilizce iletişim kurmada daha istekli olmasına fayda sağlayacaktır.

Anahtar kelimeler: beş büyük kişilik özelliği, iletişim kurmaya isteklilik, informal dijital ortam, yabancı dil olarak İngilizce

ABSTRACT

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Thesis: Willingness to Communicate in EFL in the Classroom and Informal
Digital Context: Their Associations with the Big-Five Personality Traits

Supervisor: Assist. Prof. Dr. Çiğdem KARATEPE

WILLINGNESS TO COMMUNICATE IN EFL IN THE CLASSROOM AND INFORMAL DIGITAL CONTEXT: THEIR ASSOCIATIONS WITH THE BIG-FIVE PERSONALITY TRAITS

The foreign language learning process is a sophisticated process with different determinants. Communication, which is the essence of foreign language learning, has led to the need to search the phenomenon of willingness to communicate and its effective components. For this purpose, the study targeted to explore the willingness to communicate in English as a foreign language in the classroom and informal digital context, and their connections with Big-Five personality traits.

To achieve these goals, demographic information form, willingness to communicate in English in the classroom, willingness to communicate in English in the informal digital context, and Big-Five personality traits questionnaires were implemented to 170 university engineering students. Then, twenty students who had filled out the questionnaires before were interviewed and it was aimed to have a deeper knowledge on the subject. Quantitative research data analysis was performed using SPSS 24 and AMOS 24, and qualitative research data analysis was performed using content analysis method.

The results demonstrated that the students participating in the research had relatively high level of willingness to communicate in English both in the classroom and informal digital context. However, it was observed that the level of willingness to communicate in English in the informal digital context was higher than the level of willingness to communicate in English in the classroom. In addition, different factors have emerged that affect the willingness to communicate in the classroom and informal digital context.

It has been concluded that the extroversion dimension, one of the Big-Five personality traits, has an unmediated positive influence on students' willingness to communicate in English, while the neuroticism dimension has an unmediated positive effect on communicating in English in the informal digital context. It was found that the factors of perceived proficiency level and being abroad had significant positive effects on willingness to communicate in the classroom and informal digital context. On the other side, no significant correlation was found between age, gender, frequency of social media use, and frequency of playing online game, and willingness to communicate in both contexts.

Considering all these, taking into account the concrete structural characteristics of the informal digital context, the students learning English as a foreign language have less anxiety levels in this context, and that, their self-confidence and perceived communication competence level are higher, increasing their willingness to communicate in English. Therefore, enabling

students to interact with informal digital learning of English activities (using technology in the classroom, e.g., playing online games, chatting in English via e-mail, writing comments on posts in English) in the language classrooms will also benefit the learners to be more willing to communicate in English in the classroom.

Keywords: big-five personality traits, English as a foreign language, informal digital learning of English (IDLE), informal digital context, willingness to communicate

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List of Abbreviations

- CA: Communication Apprehension
- CMC: Computer Mediated Communication
- EFL: English as a Foreign Language
- ESL: English as a Second Language
- FFM: Five Factor Model
- FL: Foreign Language
- FLA: Foreign Language Anxiety
- ICT: Information and Communication Technologies
- IDLE: Informal Digital Learning of English
- L1: Mother/Native Language
- L2: Foreign/Second Language
- MALL: Mobile-Assisted Language Learning
- MMORPGs: Massively Multiplayer Online Role-Playing Games
- PIA: Productive IDLE Activities
- PVB: Predispositions toward Verbal Behavior
- RIA: Receptive IDLE Activities
- SM: Social Media
- TELL: Technology-Enhanced Language Learning
- UTC: Unwillingness to Communicate
- WTC: Willingness to Communicate

CHAPTER 1

Introduction

Today, English is used as a common language on a global scale, either as a mother tongue or as a second language (L2). For this reason, it is clear that non-native English speakers need English primarily to communicate. However, the foreign language learning process is not easy, and numerous methods and techniques for foreign language learning have been tried so far. While some of these approaches have emphasized structure, others have emphasized communication.

Along with the significant value of communication in English, willingness to communicate (WTC) has also come to the fore. WTC can be defined as individuals' eagerness to initiate and continue communication in situations they encounter or will encounter (MacIntyre, Dornyei, Clement, & Noels, 1998). However, many factors, such as *anxiety, motivation, perceived communication competence, self-confidence, gender, and personality* affect learners' WTC (MacIntyre *et al.*, 1998; Peng, 2007). These factors may produce different results at different times in different situations. For example, one's willingness to communicate with people whom they do not know may differ from their willingness to communicate with their acquaintances on the same topic. The same person may be willing to speak on one subject and unwilling to speak on another subject, and so on. In the context of teaching English as a Foreign Language (EFL), the initial encounter with a foreign language usually begins and continues in the classroom. Hence, the classroom environment is another crucial factor. Nevertheless, improving an individual's ability to communicate in English and connect with others and different cultures is no longer an activity limited only to the classroom environment. Thanks to information and communication technology, it is possible to come into contact with English on

many online platforms where people are subconsciously exposed to English without the assistance of a teacher.

Regarding all these factors, the primary goal of this study is to analyze the WTC of university students in EFL both in the classroom and in the informal digital context alongside the effects of personality traits on this concept. In addition, other factors that may affect WTC (gender, age, perceived proficiency level, frequency of playing an online game and using social media, being abroad) will also be examined. Within this framework, the WTC construct, the informal digital learning of English (IDLE) context, and personality traits will be explained in detail in Chapter 2. Subsequently, the research methodology will be presented in Chapter 3, and the findings of the quantitative and qualitative data analysis will be presented in Chapter 4. Lastly, the results will be discussed by comparing them to the results of other studies in Chapter 5.

Problem Statement

When the source of exposure to English is accessed via the Internet, would some learners feel more willing to communicate in English? It is possible that this digital computer mediated communication (CMC), may motivate some learners to communicate more. As they communicate more, they improve their interaction skills in English, which in turn increases their willingness. Other learners might be more prepared to communicate in English in face-to-face communication simply because they have a more relaxed character. Therefore, what are the factors which motivate some learners to communicate more, and what factors inhibit other learners, meaning they prefer to remain silent? According to McCroskey and Richmond (1990), these differences can be seen in the light of the WTC construct. Therefore, if learners are willing to communicate, they fulfil the primary purpose of language learning.

Studies led by two main theories of WTC (MacIntyre *et al*, 1998; McCroskey & Baer, 1985; McCroskey & Richmond, 1987), have investigated the relationships between language learning and WTC in different situations to find out which affective factors influence WTC, and consequently improve learners' communication skills. The information these studies provide would be valuable for enabling learners to improve their communication skills. While these studies have mostly been carried out with learners who were learning English as a Second Language (ESL), a small number of studies have studied the EFL context. Yashima's study (2002) with Japanese learners, Wen and Clement's study (2003) on Chinese learners' WTC, Baghaei and Dourakhsan's research (2012) with 148 Iranian learners, and Yousef, Jamil and Razak's study (2013) with 377 undergraduate students of ESL are the examples of these studies. The findings of these studies revealed some of the affective factors which play a role in facilitating learners' WTC.

The number of studies on WTC of Turkish EFL learners is very limited in Turkey. Those studies that have investigated WTC of Turkish learners, mainly focused on the factors affecting WTC. For example, Çetinkaya (2005) investigated the relationships between WTC and variants such as personality, motivation, and communication competence of 356 university students. The results demonstrated that learners' WTC was directly linked with their attitude toward the community and their communication competence. Moreover, motivation and personality were found as important indirect factors.

Öz, Demirezen, and Pourfeiz (2015) investigated the WTC of 134 Turkish EFL learners and its relationship with affective factors. According to the results, communication competence and anxiety had a direct effect on WTC of students, while motivation had no direct effect. In terms of gender, the results showed that women have a higher WTC than men. In addition, motivation, ideal L2 self, integrativeness, and attitudes toward language learning were found related.

Kartal and Balçıkanlı (2018) conducted an experimental study with 65 university EFL students (30 experimental, 35 control). They investigated the students' WTC and anxiety levels in the virtual world across ten real-life tasks which had been chosen for the study. The results indicated a positive relationship with the virtual world and students' WTC. The virtual world was also found helpful for decreasing students' anxiety levels. Additionally, virtual worlds were recognized as environments with more authentic communication.

Sak (2020) studied WTC in and out of the classroom and the ideal L2 self. Ninety EFL students took part in this research. The results demonstrated that the students were more willing to speak in English out of the classroom than they were inside the classroom. Also, ideal L2 self and WTC were found related.

Two studies examined the influence of gender on WTC. For instance, Altınar (2018) carried out a study with 711 foundation year university students on their WTC in the context of EFL in the classroom. She found differences between genders: male students appeared less willing to communicate than female students, a finding similar to that of Öz *et al.* (2015). She also found that students who had high proficiency levels were more willing to communicate. In addition, Zerey and Cephe (2020) carried out another study with 296 EFL students to determine their WTC levels and attitudes toward the classroom environment. The effects of gender differences on these two measures were also examined. The results showed that the participants were moderately eager to communicate, and the ones who had positive attitudes towards the classroom were also more willing to communicate. The results also indicated a slight difference between genders: female students were more willing to communicate. However, the difference was not statistically significant.

All these studies provide insight into learners' WTC in the Turkish EFL context and highlight the influence of some crucial affective factors. That is, motivation, anxiety, gender, competence level, age, attitudes toward the foreign language, and community have all been

examined and found to be directly or indirectly related to WTC. Personality factors have also been included in some studies. However, the effects of personality have mostly been studied in the ESL context, and since this has not been investigated much in the EFL environment, there is a gap in the literature.

The majority of studies in this field have been based upon the classroom context. With the help of CMC, learners have begun to communicate in English outside of the school context more. Therefore, schools are not the only place for people to communicate in English. Especially today, with the development of technology, English appears in many different environments. The Internet opens many other channels through which people can be exposed to English and connect with foreigners. Today, most people, especially the younger generation, spend almost all of their time on social media or online games, giving them the opportunity to easily communicate with many English-speaking foreign people whenever and wherever they want. What is more, they spend more time on the Web than inside the classroom. However, studies in this field are scarce and almost non-existent in Turkey. For this reason, this topic is a worthwhile one to study in the Turkish EFL context at the university level.

Therefore, the current study investigates learners' WTC in EFL in the classroom and the informal digital context. Along with other components, personality traits will also be taken into consideration to reveal their impact on WTC both in the classroom and in the informal digital context.

Research Questions

To investigate the issues mentioned above, the aim of this study is to seek answers to the questions below:

1. What are the reasons for the differences between students' WTC in the English class and in the informal digital context, if any?

2. How do students' personalities affect their WTC in English in the classroom and informal digital context?
3. Are there significant relationships between students' gender, age, having travelled to an English-speaking country, personality, and their WTC in the English class and informal digital context?
4. Is there a significant relationship between online game playing, social media usage, perceived proficiency levels of students and WTC in English in the classroom and informal digital context?

Significance of the Study

The significance of this study can be presented from four different perspectives. When looking at the studies from the past to the present, it is seen that the WTC construct is generally applied in the ESL context. Unlike in the ESL environment, there is limited exposure to English in daily life in the EFL context. Accordingly, the factors effecting WTC in EFL may differ, but not much research has been conducted on this subject in Turkey. Therefore, this study will provide a more in-depth perspective to Turkish university students' WTC and its related affective factors.

Secondly, the influence of personality factors has seldom been included in previous studies. However, the influence of personality traits on WTC is emerging as an essential factor, particularly in the ESL context (Freiermuth & Ito, 2020; Kelsen & Flowers, 2017; MacIntyre & Charos, 1996; Pozega, 2010). The effect of personality traits may lead to different results in different contexts as these traits are also related to the individuals' cultural background.

With the aim of filling this gap, this study will examine how Turkish students' personality traits affect their WTC in the EFL context. Most of the research conducted into WTC has focused on the classroom context. While the EFL classroom is a critical environment

for exposing students to English, other environments where one may interact with English more have been ignored. Social media and online games, which are frequently used today, are at the top of the list of these environments.

Lastly, a mixed method that incorporates quantitative and qualitative data analysis has been applied to gather rich data on learners. The interview data has supplied in-depth information on the factors affecting WTC.

CHAPTER 2

Literature Review

Willingness to Communicate

Communication has always been a crucial requirement for all of humankind to accurately express their thoughts and feelings. While this is valid for all areas of life and in every culture and every language, foreign language (FL) teaching did not initially take communication into account. Achieving linguistic competence (grammar rules, language structures, etc.) was the main aim in teaching an FL (Chang, 2011), but over the course of time, communicative competence has replaced linguistic competence (Richards & Rodgers, 2001). Communicative competence is defined as using the proper language in a real-life context and communicating efficiently, while negotiating the meaning with an interlocutor (Adam, Stan, Moanga, Oroian, Mihai & Ciubancan, 2010). The main aim of FL teaching has become communication in the target language, in its spoken or written form, in or outside of the classroom, with authentic texts (Richards & Rodgers, 2001; Wesche & Skehan, 2002). Relatedly, the latest approaches to communication emphasize that people cannot professionalize without using the language, so it is not possible to learn the language properly without speaking (MacIntyre & Charos, 1996).

However, Rubin (1975) described certain features of a good language learner that emphasize the importance of communication in FL study. According to Rubin, a good language learner is willing to talk and pays attention to communication; is not always timid; has a powerful desire for communication; focuses on language patterns; practices the language; observes own speech and others and concentrates on meaning.

With this level of importance of communication in teaching FL, language learning has become prominent, and communication has become privileged in FL teaching and learning.

Consequently, some have considered that FL learners cannot absorb the target language in all aspects and become skilled in that language without communication (Khajavi, Ghonsooly, Fatemi & Choi, 2016). Therefore, it is anticipated that learners should seek out opportunities where they can use the language communicatively. Nevertheless, while some learners will use an opportunity that gives them a chance to communicate in FL, others may intentionally miss the chance, preferring to stay silent. McCroskey and Richmond (1987) indicated that talking is the focus of communication, but the amount of talking differs from person to person. The Willingness to Communicate (WTC) construct has been shown to explain the differences in the amount of speech used among people. According to Yashima, Zenuk-Nishide & Shimizu (2004), “WTC predicts frequency and amount of communication” (p. 141).

WTC is defined as the preparedness for engagement in a conversation with other people within a fixed time (MacIntyre *et al.*, 1998). Several variables that affect an individual's WTC have been found so far. They include: self-esteem, anxiety, personality, motivation, perceived communication competence, society, social support, etc. Some researchers (JC McCroskey & Baer, 1985; JC McCroskey & Richmond, 1987) treat WTC as being trait-like, whereas others (MacIntyre *et al.*, 1998) treat it as being situational based. Accordingly, there are two basic WTC models.

James C. McCroskey's willingness to communicate model. JC McCroskey's WTC model originated from three previous different studies. The first concept from these studies is unwillingness to communicate (UTC), defined as a constant avoidance of speaking situations and displeasure in verbal communication (Burgoon, 1976). Burgoon (1976) asserted certain variables: communication apprehension, introversion, self-esteem, anomie, and alienation, all of which affect an individual's WTC. Her measurement of UTC involved two factors: approach-avoidance and reward. While the first factor (approach-avoidance) was found to correlate with communication apprehension, the second factor (reward) did not correlate with communication

apprehension. The results of Burgoon's study (1976) showed that anxious people were much less willing to communicate in comparison with others who were not nervous. However, the results did not cover the general tendency for UTC.

Predispositions toward verbal behavior (PVB) is the second concept utilized. According to Mortensen, Arntson, and Lustig (1977), despite some situational factors that may affect people's WTC, there were also some stable WTC factors. People had characteristic tendencies/behaviors in situations, and these global features remain steady. They called this concept "predispositions toward verbal behavior." They prepared a scale with 25 items, but only five of these items were found as valid for measuring WTC.

The last concept is shyness, defined as a tendency towards diffidence and avoidance of talking much (JC McCroskey & Richmond, 1982). Shyness has seemed like a fixed factor in WTC. They also mentioned that communication apprehension might also affect tendency, but these two factors (shyness and communication apprehension) differed. For measuring, JC McCroskey developed a scale called the "Verbal Activity Scale-VAS" and then changed its name to the "Shyness Scale." This scale was different from the communication apprehension measurement even though it was somehow related. When JC McCroskey and Richmond (1982) examined the scale with college students and adults, it was questioned whether or not this scale was reliable in measuring WTC.

JC McCroskey and his colleagues (JC McCroskey & Baer, 1985; JC McCroskey & Richmond, 1987) put forward the WTC model by considering the three concepts' valid and invalid aspects as mentioned above. JC McCroskey (1984) described WTC as a person's inclination to be included in a conversation with other people. This construct mostly focused on stable variables such as apprehension and self-esteem rather than situational variables such as feelings, time, and physical appearance. However, both stable and situational variables were

considered determinants for WTC. JC McCroskey and his colleagues concentrated on speaking and asserted stable variables to learn the reasons for people's different inclinations in WTC:

Introversion: introvert people are assumed to have a low level of WTC and rarely participate in a conversation compared with others since they are generally shy and reticent.

Self-esteem: an individual with a low level of self-esteem is considered to have low WTC levels because they have obscureness, and they are generally afraid of getting adverse reactions from others. People with high self-esteem, on the other hand, are more willing to communicate.

Communication skill level is another factor that has an impact on WTC. When people have inadequate communication skills, it may lead to anxiety about participating in a conversation and a low WTC level. Moreover, the perceived level of an individual's communication skill is a much stronger predictor for WTC than the exact communication level (JC McCroskey & Richmond, 1987).

JC McCroskey (1977; 1984) defined communication apprehension as a person's anxiety level in conversations with other people, regardless of their being real or anticipated. Those who have high communication apprehension are more likely to have a lower level of WTC. It is a direct predictor for WTC.

Cultural divergence: even if all people from all cultures need to communicate, there are some differences in communication types. Whereas some countries have one dominant culture, others have numerous cultures and subcultures. People in minority subculture groups are called culturally divergent, and their communication skills are often insufficient compared to the majority groups. This deficiency may cause a lower WTC level.

Anomie and alienation: anomie refers to situations in which people cannot adopt social norms, including communication norms, while alienation relates to conditions in which people feel separated from other people. It was assumed that those people also have a low level of WTC.

JC McCroskey and his colleagues associated WTC with mother language (L1) in their WTC model. It was found that introversion, communication anxiety, anomie and alienation, and WTC in L1 were negatively related. Nevertheless, WTC in L1, self-esteem, and perceived communication competence were found as positively related (JC McCroskey & LL McCroskey, 1986a; 1986b).

MacIntyre's willingness to communicate model. Since stable (trait-like) factors were the focal point in JC McCroskey and his colleagues' WTC model (JC McCroskey & Baer, 1985; JC McCroskey & Richmond, 1987), their construct was not seen to sufficiently measure an individual's WTC. MacIntyre and his colleagues (1998) developed a new WTC model for both stable and situational factors on WTC. According to them, WTC is being ready to communicate in a foreign language with a specific person or cohort of people in a certain timeframe (MacIntyre *et al.*, 1998). This model set forth an idea that a person's WTC would be afflicted by lots of situational elements such as the social position of the addressee, formality of situations, topic types, interests, acquaintanceship, the community that an individual belongs to as well as other stable factors such as communication anxiety, self-regard, or personality.

In contrast to JC McCroskey's WTC model, in which WTC in L1 and L2 were seen as related, it was thought that WTC in L1 would be different from WTC in L2 because even if the same variables are considered, they have distinctive effects. Features of L2, obscurity, L2 community, and inadequacy level in L2 are reasons for their distinctness. Moreover, the focus is on both spoken and written language in this model, both productive. By taking into account all of the above, MacIntyre and his associates (1998) asserted that the heuristic model demonstrates factors impacting WTC. They explained both stable and situational impacts (Figure 1).

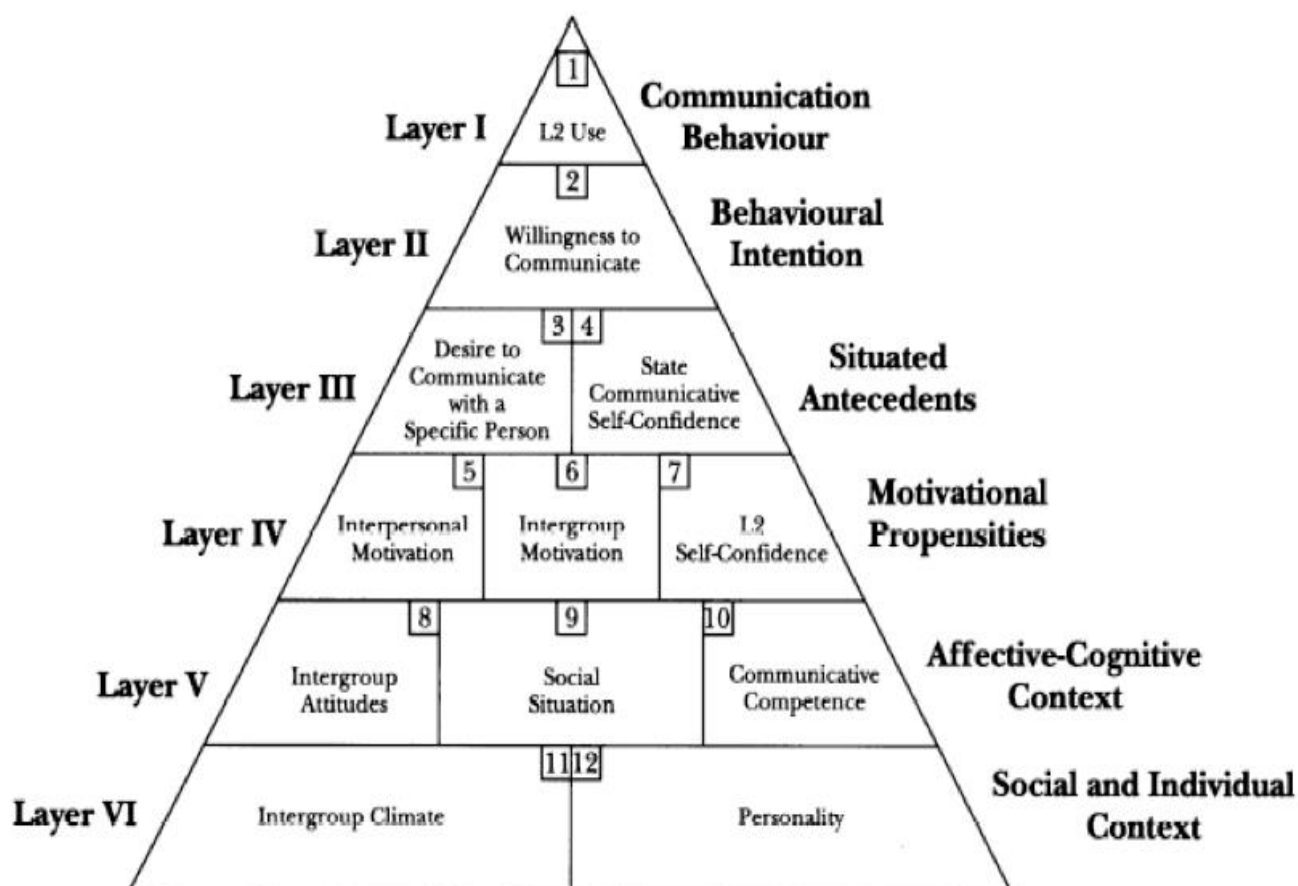


Figure 1. MacIntyre et al.' (1998, p.547) Heuristic Model

There are six variables in this model, which MacIntyre *et al.* (1998) called layers. The primary three layers (Layer I, II, III) include situational-based variables, and the final three (Layer IV, V, VI) include stable variables that affect WTC. Every lower variable prepares the ground for the ones above.

Communication behavior (Layer I) is a broad term that consists of other interdependent variables included in the Heuristic Model. L2 use occurs due to these variables, including L2 activities such as talking within the classroom, scanning daily papers, watching movies in L2, or finding a job that involves use of L2. MacIntyre *et al.* (1998) asserted that L2 learners should be directed to classroom opportunities that promote students' WTC and L2 use.

WTC (Layer II) was seen as a primary variable that provides a basis for L2 use. According to MacIntyre *et al.* (1998), WTC should not necessarily include real talking in itself. For example, when learners are asked a question, all the learners who raise their hands are also presumed to be willing learners because they intend to answer. This intentional behavior may result from high motivation and low anxiety levels, which are the requisites for WTC.

In Layer III, there are two different variables. According to this model, a desire to make contact with a particular person is related to affiliation and control concepts, which promote WTC. Affiliation exists between people when they have something in common and often see each other (MacIntyre *et al.*, 1998), and control generally occurs in task-based situations. On the other hand, stating communicative self-competence expresses an individual's adequacy in contacting people in L2 efficiently at a particular time. Communicative self-competence and lack of anxiety are regarded as essential components for self-confidence, another indicator for WTC (Clement, 1986).

An individual needs motivation to engage in a conversation, and motivation may be affected by both transient and enduring factors. Accordingly, Layer IV comprises three distinctive variables. The first, interpersonal motivation, comes from a person's relationships with L2 and the people who speak this language. Affiliation, control, and individual characteristics are considered the main factors affecting interpersonal motivation (MacIntyre *et al.*, 1998). Nevertheless, intergroup motivation develops out of a specific group that an individual belongs to, so intergroup behaviors, climate, control, and affiliation affect this motivation type. Affiliation in intergroup motivation provides a friendly relationship with other groups' members and positive attitudes toward other groups. These two factors (interpersonal motivation and intergroup motivation) are related to the social side of motivation, while L2 confidence is directly related to the individual and L2 use. L2 confidence is described as a general belief about an individual's ability to communicate effectively in L2. *Self-evaluation*,

which addresses evaluation of their level of L2 achievement, and *language anxiety*, which refers to previous annoying L2 experiences of individuals, are two impacts of L2 confidence. If a person's self-evaluation is satisfactory, it increases their desire to communicate, whereas if they have annoying experiences in L2, it decreases their desire.

In Layer V, three variables were discussed. Integrativeness, fear of assimilation, and L2 motivation are focused on intergroup attitudes. Gardner (1985) defined integrativeness as having positive attitudes toward the L2 community and wishing to get closer with this community's members without being the same. While integrative people are willing to learn about the L2 community, some may fear assimilation. Accordingly, people who have positive attitudes toward L2 have a high level of WTC. In contrast, others who fear assimilation often try to stay away from the L2 community so that they may have a low level of WTC. Moreover, these two constructs (integrativeness and fear of assimilation) have an essential effect on a person's L2 motivation. While the fear of assimilation demotivates people from learning L2, positive attitudes and pleasant L2 experiences motivate people to learn an L2. Nevertheless, different communication types are relevant to the social situation and affect WTC. The interlocutors, setting, aim, subject, and communication channels are all essential factors in social situations. To exemplify, a student may feel worried while talking with an L2 teacher but may have self-confidence in L2 while talking with an agetate, enhancing WTC. Another predictor for WTC is communicative competence. The idea that that a person's perceived communication competence level may be more effective than their real competence level has been defended. A person may have self-confidence because of perceived competence level and WTC even if their actual competence level is lower than they think it is.

In Layer VI, the social context refers to the intergroup atmosphere where one progresses, and the individual context refers to one's features. Social context includes intergroup climate, intergroup relationships, and communities' ethnolinguistic vitalities (e.g., socioeconomic or

sociocultural situation). As mentioned before, if people have positive feelings toward L2, they will want to be more involved in communicative situations and become more familiar with that community. This attitude offers people L2 confidence and a reduced anxiety level, which constitute a high level of WTC. However, individual context is related to personal differences. Personality determines how an individual behaves toward L2 members. A reticent person may not normally have a good relationship with L2 members, while another who is open to new ideas or who is intuitive may have a good relationship with them. However, personality was seen as an indirect influencer on WTC.

Following these models mentioned above, researchers have conducted lots of studies based on them and have achieved similar results. Wen & Clement (2003) studied with Chinese EFL learners, and they asserted that cultural values are one of the premises that affect students' WTC. Relative to this, Yashima *et al.* (2004) have found that internationally oriented people are more willing to speak in FL. Baker and MacIntyre (2000) conducted research with Canadian learners of French as an L2 and found that WTC is related to learners' anxiety negatively, while no significant difference was found between WTC and gender. On the other hand, Ahmadian and Shirvani (2012) found that WTC is related to gender in their research, which was carried out with 163 Iranian university students of EFL. Furthermore, Hashimoto (2002) performed an investigation on ESL students in Japan, and the findings show that perceived competence and motivation are positively related to WTC while anxiety is negatively correlated. Asmalı, Bilki, and Duban (2015) carried out another study with 130 Romanian and Turkish learners and revealed that WTC is associated positively with their perceived communication competence and negatively with communication apprehension. In 2017, Ayaz conducted research into WTC, L2 achievement, and language strategies. Seventy-nine EFL students took part in the study and filled in two different questionnaires. According to the results, certain factors such as self-confidence and motivation make students feel comfortable and positively affect their WTC.

Furthermore, some other variables have also been found effective for WTC. Başöz and Erten (2019) conducted research with 32 undergraduate Turkish EFL learners and examined the learners' WTC in the classroom. The results show that motivation, anxiety, classroom atmosphere, vocabulary knowledge, pronunciation, communication competence, past experiences, teaching methods, classmates, and teacher attitude affect WTC of EFL learners. MacIntyre and his colleagues (MacIntyre, Baker, Clement & Conrod, 2001) carried out a study with 9th-grade learners of French as L2, and they found that social support, especially from friends, has a positive relationship with WTC. Freiermuth and Jarrell (2006) carried out another study with Japanese ESL learners and achieved the result that the online environment promotes students' WTC.

However, as seen in MacIntyre *et al.*'s (1998) WTC model, personality is another important factor that impacts learners' WTC. Therefore, studies have also been conducted on personality traits. Karadag and Kaya (2019) completed research on WTC and personality. They studied EFL students from colleges and faculties. The results show that shy and emotionally stable learners are less willing to communicate. In contrast, students who are extravert and intelligent/imaginative are highly willing to communicate with others. Another study was carried out by Öz (2014) on WTC and personality with 168 Turkish EFL learners. He found that agreeableness, extraversion, and openness to new experience personality traits are positively associated with learners' WTC. However, the study that Adelifar, Jafarzadeh, Abbasnejhad, and Hasani (2016) conducted with 80 EFL students demonstrates that neuroticism positively affects WTC. On the other side, agreeableness and conscientiousness have a negative effect on WTC. However, due to the scarcity of research, the effects of personality on WTC have not been clearly revealed. Therefore, the results of the personality traits on WTC are a subject that needs to be investigated.

The Big-Five Personality Traits

Personalization has gained importance over time. Every person has a unique style of life, way of thinking, and behavioral system. Therefore, individual differences have also become crucial in every part of life, especially in educational settings. They are always seen as important language learning factors since every person has some differences in attitudes toward language learning and learning styles (Komarraju & Karau, 2005). However, personality is regarded as one of the most critical components to explain individual differences in FL. How and what people learn depends on their character (McCaulley, Natter & Myers, 1980). Brandenburg (1925) defines personality as the overall appearance that consists of the physical, affective, and intellectual characters of people and their reactions to different events. Accordingly, a person's social life and culture, in general, affect their personality. Pervin and John (2001) explain personality as an individual's temperament that results from permanent patterns of feeling, consideration, and action. Relative to this, personality traits are consistent feeling, thinking, and behavior (McCrae & Costa, 1997). These characteristics affect foreign language anxiety, motivation, self-confidence, learning achievement, and WTC since they have an impact on how a person interacts with other people from their own culture or different cultures in a social setting (Gregerson & Horwitz, 2002; Khany & Ghoreyshi, 2013; MacIntyre *et al.*, 1998; Yashima, 2002).

Several constructs for personality traits have been put forward up to now. One of the most significant of these is the Big-Five Personality Traits (i.e., Five-Factor Model). The model has been adjusted by many different psychologists (Goldberg, 1992), and the five factors have been evolved over time and taken their latest forms. The concept was first visible in the 1930s with Thurstone, who used 60 adjectives for characteristics (Thurstone, 1934), but he did not follow this construct. Then Cattell (1943) described 12 factors for personality traits, believing five elements to be too limiting. After their pioneering work, many different personality

instruments were created between the 1940s and 1980s (e.g., the Hogan Personality Inventory, the Eysenck Personality Questionnaire, the Norman Peer Rating Scales). However, these instruments led to some doubt because of lack of reproducibility (Apple, 2011). In the early 1980s, Goldberg (1981) asserted that the Five-Factor model (FFM) was unfaltering even though he firstly worked on Hans Jürgen Eysenck's PEN model (Peabody & Goldberg, 1989). Moreover, Goldberg used the term 'Big-Five' for the five factors for the first time, and he produced two scales with 50 and 100 items, and so the Big-Five model was formed (Goldberg, 1992; 1993). The Big-Five factors were Extraversion-Introversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect-Imagination. After that, the three-factor model was presented by Costa and McCrae (1985), comprising neuroticism, extraversion, and openness to experience. They then added two further items that constituted a new FFM and developed a scale known as the NEO Five-Factor Inventory consisting of 60 items (Costa & McCrae, 1992). These five factors are broad terms that summarize certain distinct and abstract personality traits in five dimensions, even if personality traits cannot be limited to five factors (John & Srivastava, 1999). These two models, which were created by Goldberg (1992; 1993), and Costa & McCrae (1992), are similar in respect to their constructions and meaning so, these terms (Big-Five and FFM) have been used interchangeably (De Fruyt, McCrae, Szirmak & Nagy, 2004). Even if the individual Big-Five and FFM factors are referred to differently (such as Emotional Stability - Neuroticism), they are the same constructs. Lately, the term Big-Five has been used to categorize personality traits (De Raad & Perugini, 2002; Digman, 1990; Goldberg, 1990). Since the Big-Five Personality Traits Model is considered as valid and practical for different cultural settings, it has been selected for many studies (McCrae & Costa, 1987; 1997). The Big-Five factors are Intellect/Imagination, Conscientiousness, Extraversion, Agreeableness, and Neuroticism in this model.

Intellect/Imagination, also known as "Openness to experience," is linked with people's language and culture (Apple, 2011). Imagination, curiosity, productivity, insightfulness, sophistication, inventiveness, and being nontraditional are the profits of intellect/imagination (Dörnyei, 2005; Goldberg, 1990; John & Srivastava, 1999). On the other hand, intellect/imaginative people are superficial, unthoughtful, ignorant, conservative, and traditional (Apple, 2011; Dörnyei, 2005; Goldberg, 1990).

Conscientiousness is also called "Will to Achieve." People with high conscientiousness are responsible, insistent, attentive, systematic, hardworking, thorough, detailed, and self-disciplined. The unconscientious others are disorganized, inattentive, unreliable, hesitant, and weak-willed (Dörnyei, 2005; Goldberg, 1990; John & Srivastava, 1999). Chamorro-Premuzic, Furnham, and Lewis (2007) point out that conscientious students aim for success, and they perform systematic and detailed studies to achieve the desired success. Striving to achieve this success also requires a certain level of motivation.

Extraversion is also called "Surgency." Sociable, active, confident, passionate, and energetic people are generally extraverts. On the other hand, unsociable, shy, and untalkative people are generally accepted as introverts (Dörnyei, 2005; Goldberg, 1990; John & Srivastava, 1999). Extravert people gain power from external factors, but introverted people gain it from their inner world and opinions (Nikoopour & Hajian, 2015). Extravert people are also considered to be more willing to work in a team, while introverts are willing to work alone (Eysenck & Chan, 1982). It has been suggested that extraversion is an influential factor in team works (Rothstein & Goffin, 2006). Moreover, Komarraju and Karau (2005) state that sociable and renovative people benefit more from informational discussion platforms and interactive learning.

Agreeableness is also known as "Friendliness" and "Socialization." It refers to a compatible relationship between individuals (Digman, 1990). Sensitivity, modesty,

agreeableness, amiableness, faithfulness, and bountifulness are considered as characteristics of agreeable people. On the other hand, people who are not agreeable are insincere, rude, critical, uncooperative, vengeful, and objectionable (Dörnyei, 2005; Goldberg, 1990; John & Srivastava, 1999). Agreeable people are generally pleasant in social situations (Graziano & Eisenberg, 1997).

Neuroticism is also known as "Emotional Stability." It includes many negative characteristics and is generally associated with a high level of anxiety (McCrae & John, 1992). Accordingly, this character type causes worrying, self-criticism, resentment, insecurity, sensuality, and vulnerability, whereas people who are not neurotic are relaxed, comfortable, calm, and self-satisfied (Dörnyei, 2005; McCrae & John, 1992; John & Srivastava, 1999).

Big-Five, motivation, self-confidence and anxiety. The Five factors are closely linked with motivation, self-confidence, and anxiety, which are all predictors of WTC.

Motivation is a notable factor for language learning. Dörnyei (1998) points out that learners who do not have a strong enough reason for language learning can't achieve long term goals. Motivation has been identified in several ways. Heckhausen (1991) describes motivation as goal-oriented behaviors, while Arnold and Brown (1999) define it as learners' reasons to learn an FL. Moreover, Gardner (1985) explains it as a mixture of willingness to succeed in learning an L2, making an effort to understand it, having a positive attitude toward language learning, and everything it encompasses. Highly motivated learners are expected to be more willing to learn an L2 itself and also learn around it, showing willingness to learn about the target culture, talk with people of that culture, make foreign friends, travel to the places where the target language is used as well as showing eagerness to make progress in the four language skills (speaking, writing, listening, reading). Gardner and Lambert (1959; 1972) mention two different motivation types: integrative motivation and instrumental motivation. Gardner and his colleagues (Gardner, Smythe, Clement & Gliksmann, 1976) defined integrative motivation as

individuals valuing the target language and having a strong wish to learn that language. Accordingly, it can be described as learning an L2 to interact with the L2 community members and establish an intimacy with them (Gardner & Lambert, 1959; 1972). Instrumental motivation, on the other hand is described as L2 learning to achieve a goal (Gardner & Lambert, 1959; 1972), such as getting high grades and finding a job. Furthermore, Dörnyei (1990) proposed four motivational orientations which may fit EFL contexts: 1) fascination with FLs and acculturation, 2) willingness to widen one's viewpoint, 3) willingness to face new situations, which are related to integrative motivation, and 4) a desire to interact in a new society, which is related to the instrumental motivation of learners that may be more effective for EFL learners (Dörnyei, 1994).

In the light of such information, it can be said that intellect/imagination, conscientiousness, agreeableness, and extraversion have motivation within themselves because of their characteristic features of being curious, hardworking, social, energetic, and passionate (Colquitt & Simmering, 1998; LePine, Colquitt & Erez, 2000; Major, Turner & Fletcher, 2006). In 2015, Bozanoğlu and Sapancı carried out a study with 353 EFL students on personality and motivation to learn. According to the results, conscientiousness is positively correlated with motivation, and neuroticism is negatively correlated with motivation. In a similar vein, Major *et al.* (2006) conducted a study with 183 employees on Big-Five personality and motivation to learn. The results show a positive link between extraversion, intellect/imagination, conscientiousness, and motivation. Furthermore, a negative relationship was obtained between neuroticism and motivation. Sung and Choi (2009) also carried out a study on creativity by examining motivation and personality. According to the results, motivation is positively associated with intellect/imagination. Kaufman, Agars, Lopez-Wagner (2008) investigated the connection between motivation and conscientiousness with 315 non-traditional undergraduates at an institution, and motivation and conscientiousness were found to be positively related.

Self-confidence is seen as another feature of the characteristics of an individual and a vital factor in language learning success, especially for FL WTC. It is a strong predictor in determining a learner's willingness to take part in communicational situations (Yashima *et al.*, 2004). Studies show that successful language learning cannot occur without self-confidence (Brown, 1994; Huitt, 2004). Clement (1980; 1986) describes L2 linguistic self-confidence as a combination of learners' reliance on their competence in language learning and lack of anxiety. On the other hand, MacIntyre *et al.* (1998) identify L2 self-confidence as a person's overall thoughts about their ability to be involved efficiently in an interaction in L2. L2 self-confidence has two elements: self-evaluation of L2 skills and experiences using the L2 (Clement, 1980; MacIntyre *et al.*, 1998). According to this concept, L2 self-confidence consists of self-perceived L2 competence (especially communication competence) and low anxiety. Self-perceived L2 competence is a learner's evaluation of their abilities in language learning by looking at past experiences (both the bad ones, which lead to stress and the good ones, which improve motivation), attitudes, social support, and feedback from others (Magogwe & Oliver, 2007; Vrettou, 2011). Therefore, if learners are pleased with their interaction, they will develop a positive behavior toward language use and community to increase their self-perceived L2 confidence and decrease anxiety level (Clement *et al.*, 1994), which enhances WTC level. Some pieces of research focused on learners' self-perceived confidence, WTC, and anxiety. They show that perceived communicative confidence is positively relevant to WTC but is negatively related to anxiety (Hashimoto, 2002; Yashima, 2002). Researchers emphasize that low self-confidence leads to an imperfect foreign language learning process since it reduces learners' motivation and increases their anxiety (Pajares & Miller, 1994; Rubio, 2014). Therefore, self-confidence has been highly associated with FL anxiety.

The features of self-confidence show that intellect/imagination and extraversion are directly associated with self-confidence. Intellect/imagination necessitates self-confidence to

explore and find new opportunities, while extravert people need to have self-confidence because of being social and active. There is also an association between agreeableness and self-confidence since association also requires being social. On the other hand, self-confidence is negatively related to neuroticism because of the high anxiety level.

Foreign language anxiety (FLA) is also an essential factor for language learning and learners' WTC (Na, 2007). FLA is a specific construct that is related to a learner's psychological state. Scovel (1978) states that FLA is not a simple term to define because it is an abstract construct in one's mind, although everyone knows how it makes them feel. According to Brown (2000), it is related to nervousness, concern, and stress. MacIntyre and Gardner (1994) also connect anxiety with language learning situations; listening, speaking, and learning in general. FLA's general concept is that it harms language learning so, it is accepted that learners with a low level of anxiety are better at understanding and performing language skills than other learners who have a higher level of anxiety. Similarly, Krashen (1985; 1987) brings forward the affective filter hypothesis, emphasizing that there are some mental blocks, such as anxiety, which need to be reduced to learn an FL efficaciously. Additionally, learners' motivation and self-confidence should be high.

Communication apprehension (CA) presents itself in some situations where learners communicate with others in FL. JC McCroskey (1984) describes CA as a person's fear level while communicating with other people. Oral communication stress, listening to others in FL, understanding a message during communication, etc., are all CA indicators. Learners are generally anxious about their communication skills rather than other skills: reading, writing, and listening (MacIntyre & Gardner, 1991) because communication necessitates high concentration on what is being said. In communication situations, learners generally do not have control over conversations while the other skills give them a chance to correct their mistakes quickly (Ay, 2010).

Test anxiety, on the other hand, shows up with the fear of failure (EK Horwitz, MB Horwitz & Cope, 1986). Exams may make learners anxious, and even well-prepared learners can make some mistakes because of their high anxiety levels. Additionally, oral examinations used to assess learners' speaking skills may cause test-anxiety and communication apprehension.

The fear of negative evaluation is the last anxiety type, and it means feeling under pressure about others' judgments and avoiding being an evaluatee (Horwitz *et al.*, 1986). This anxiety type is different from test-anxiety because it is not restricted to tests, rather it concerns fear of all evaluative situations, such as job interviews or presentations.

With all components, anxiety can be associated with neuroticism (Colquitt *et al.*, 2000). According to the study by Harris and Dollinger (2003), which was carried out with 144 undergraduate students at a Midwestern university, concerning the relationship between the Big-Five Personality and anxiety, there is a high correlation between the neuroticism trait and anxiety. There is a reverse correlation with conscientiousness, agreeableness, extraversion, and no relationship with intellect/imagination. Another study, carried out by Vural (2019) with 923 university EFL students, indicates that neuroticism increases learners' FL speaking anxiety, whereas extraversion, intellect/imagination, and conscientiousness all decrease it.

Within WTC's scope, learners who are intellect/imaginative and extravert are expected to be more willing to communicate because of their enterprising, social, talkative, motivated, and innovative characteristics. Moreover, they may be ready to learn more about other cultures and be less judgmental about the target culture. Agreeable and conscientious learners might also be willing to communicate since they are success-oriented and will probably behave positively. On the other hand, neurotic learners are expected to be unwilling to speak since their anxiety level is generally high, and their self-confidence level is low.

Öz (2014) implemented a study in Turkey with EFL students. According to the result, talkative, pleasant, creative, helpful, trusting, and friendly learners, namely the intellect/imaginative, conscientious, extravert, and agreeable learners, are more willing to participate in English communicational situations. Another study was carried out by Ockey (2011) in Japan with 360 EFL university students. The results point out that extraversion is an essential predictor for learners' oral ability, especially for fluency and vocabulary. Khany and Ghoreyshi (2013) also conducted a study with the participation of 217 Iranian EFL students. They used the Big-Five Inventory Questionnaire and FL speaking confidence questionnaire to see the relationship. According to the results, extraversion has a direct and positive relationship with FL speaking confidence, and it has a negative association with speaking anxiety. The second highest positive relationship was found between intellect/imagination and FL speaking confidence. Conscientiousness and agreeableness were also found to positively correlate with FL speaking confidence. In contrast, a negative relationship was revealed between neuroticism and FL speaking confidence. In addition, Pozega (2010) focused on EFL learners' WTC, oral proficiency, and the Big-Five personality traits, in a study carried out with 324 EFL learners in a high school in Osijek. The results show that intellect/imagination is positively associated with learners' WTC, and, in terms of oral proficiency, agreeableness was found negatively associated. Lastly, Lin (2018) conducted study with 701 university students in the EFL context. The study focused on the learners' WTC, five personality traits, motivation, communication confidence, and international manner. The findings demonstrate that personality traits do not directly affect WTC, but motivated and self-confident characters are more likely to use English. Studies have revealed that personality traits directly or indirectly affect WTC. Personality traits cause differences in the FL learning process due to individual differences. The common conclusion of most studies is that three of the Big-Five personality traits (openness to new experience/intellect-imagination, agreeableness, extraversion) positively affect WTC.

Conversely, the neuroticism trait has a negative effect on WTC. The common points of these three factors are that people with these characters are generally open to improvement, able to socialize, love to research and develop, are highly motivated, and self-confident, all of which are directly associated with WTC. It is also seen that the conscientiousness trait that follows these three main factors mentioned above has generally been found positively related to WTC. It has also been shown that neuroticism negatively affects WTC since neurotic people generally avoid occupied crowded environments and have high-stress levels.

Considering previous research studies, it is seen that almost all examinations of the relationship between WTC, personality, and other factors have been administered in the classroom in the EFL context. This is because the EFL classroom is the most crucial environment in which foreign language learners are exposed to English in no small measure. Although this situation has been valid for a long time, changes have taken place over time that have allowed learners to use English more effectively. Today, EFL learners can easily access many kinds of English resources and contact native or nonnative English-speaking people. Thanks to the internet, they can use the language by producing various outputs in different environments. In particular, the popularity of social media and online games has increased the necessity of using English as an international language and increased learners' opportunities to use the language without formal assistance. Therefore, these changes have brought about the fact that the same factors may produce different results in different settings. Accordingly, it has become necessary to examine the factors that affect WTC in the informal digital context.

Informal Digital Learning of English

Technology has called for many changes in humans' lives in the 21st century. It has changed how they live, how they think, how they act, how they treat each other, how they reach information, and how they learn. Accordingly, education has also been affected, and technology has provided real opportunities, especially in EFL contexts. Learners are typically not fortunate

enough to be able to reach out to native English speakers. When considering the youth of today, who are digital natives, (i.e., the new generation born into the digital age and which has grown up with technology (Prensky, 2001)), it is tough to imagine education as being separate from technology use. As a result, learners' needs and expectations have changed in this direction. The introduction of the use of Information and Communication Technologies (ICT) in language learning has brought different terms to light for educational settings e.g., Technology-Enhanced Language Learning (TELL), the Learning beyond the classroom model, Mobile-Assisted Language Learning (MALL), and extramural English. They all consider FL learning from a distinctive point in terms of form, location, instructional method, and locus of control (JS Lee & Drajadi, 2019).

Recently, Informal Digital Learning of English (IDLE), which embraces various interaction options, has been considered. JS Lee and K Lee (2019) define IDLE as an unintended, natural learning environment that is delivered digitally outside the classroom, away from formal learning where people are responsible for their own learning. Thus, IDLE has four essential notions: it should be out of the class in terms of location, be informal in terms of form, be non-instructed in terms of the instructional method, and be self-directed in terms of locus of control. The European Commission (2001) considers informal learning as an incidental learning process that stems from daily life activities related to different factors such as family or work. Also, Golding, Brown, and Foley (2009) introduce informal learning as a process that is not systematic and organized by learners and that is under-investigated because of various features. On this basis, IDLE activities are not structured by teachers (JS Lee, 2020), so EFL learners voluntarily choose to engage with certain devices which lead digital communication (e.g., mobile phones, laptops, tablets, TV), and digital resources (e.g., The Internet, Blogs, Facebook, Instagram, Twitter, Online games, Skype, Wikis, WhatsApp, Massive Multiplayer Online Role-Playing Games, web apps) to learn English (JS Lee & Dressman, 2018). If the activities are

structured or driven by teachers, they are not considered IDLE (Reinders & Wattana, 2015). Nevertheless, IDLE activities are divided into two groups; receptive IDLE activities (RIA) and productive IDLE activities (PIA) (JS Lee & Drajati, 2019). As in receptive skills, receptive activities are also related to reading and listening activities, which are useful for developing comprehension skills and understanding English. It occurs without a real interlocutor. Watching TV, reading a newspaper in English, listening to music are examples of RIA. In contrast, productive activities are related to writing and speaking skills that provide output for production of what has been learned so far. It is carried out via interacting with real interlocutors. Making comments on someone's post via Instagram, Facebook, sharing content with others on YouTube and chatting with others in online games are examples of PIA. PIA is considered a significant predictor for learners' WTC in comparison with PIA (JS Lee & Drajati, 2019).

As the EFL context is different from the ESL context because of the integrativeness issue, IDLE is a robust construction that gives EFL learners to talk with target community members and learn about their culture. It also allows learners to acquire the language subconsciously and use it as a global language for intercultural connection (JS Lee, K Lee & Drajati, 2019). According to Skehan (1989), talking with a native speaker in FL can also be seen as informal language learning when learners talk to learn willingly. In the informal digital learning context, EFL learners can have many opportunities to communicate with native speakers; thus, they may affiliate with the members and develop positive attitudes toward the language use and its community. Moreover, technology-enhanced activities correlate learners' barriers to speaking (motivation, self-confidence, and anxiety). Hence, learners are generally more motivated and have self-confidence in the IDLE context than in EFL classrooms because of their self-control and self-evaluation over their learning while having fun. At the same time, they are fascinated by digital devices and sources, which also helps learners to become less anxious. According to the study of JS Lee and Drajati (2019), which was carried out in the

Indonesian context with EFL students, IDLE activities are beneficial to reduce students' anxiety and increase self-confidence and motivation.

With all these IDLE features, learners are expected to be more willing to participate in an English conversation. However, some thoughts are that digital communication alone is not sufficient for learners because of the interlocutors' or artifacts' inadequacies (Bretag, 2006; Thorne, 2003; Thorne & Payne, 2005; Uzun, 2014). Language artifacts created by some people to enhance the language learning process include concrete or intangible materials (e.g., charts, software) (Sherin, Reiser & Edelson, 2004). However, creating an interactive atmosphere online is considered more complicated, and since materials that interact in online environments are designed, they may be lacking in natural interaction components (Sherin *et al.*, 2004). Nonetheless, many research pieces demonstrate that learners have a high WTC level in the IDLE context besides developing language skills. JS Lee and Dressman (2018) conducted research with Korean EFL students. The results suggest that learners can become proficient by engaging in IDLE activities without formal instruction. Another study conducted by JS Lee and Drajiati (2019) in Indonesia found a positive link between WTC and IDLE activities.

Simultaneously, the usage of digital/mobile devices (e.g., smartphones, tablets, and computers) is seen as a new way of learning using appropriate tools for learner-centered, self-directed learning. They provide learners durability, spontaneity, and interaction in different contexts (Kukulska-Hulme & Shield, 2008, p.273; Michelsen, 2008). As it stands, mobile devices provide learners with a platform from where they can use them and reach whatever they want whenever they want and wherever they need. They are the tools to obtain different content, have fun, and communicate efficiently and facilitate collaboration (Demouy & Kukulska-Hulme, 2010). It is also getting easier to improve one's language skills (e.g., vocabulary and grammar knowledge, listening, speaking, pronunciation, fluency) and to bring cultural awareness (Sevy-Biloon, 2017; Thornton & Houser, 2005). With all the advances in

technology, the Internet and personal computers or other digital/mobile devices have become easily accessible. Consequently, the use of WEB 2.0 tools, which are web-based facilities that allow people to be visual, prosy, and conversational, makes social networking/social media fashionable (O'Reilly, 2007).

Social media (SM) is defined as those internet-oriented applications that emerged with the establishment of WEB 2.0, which is mostly used for online communication (Al Arif, 2019; Kaplan & Haenlein, 2010). WEB 2.0 technologies and SM provide people with products, share content, and exchange information via communication (Kaplan & Haenlein, 2010). Today, many people, especially digital natives, use SM such as Facebook, Instagram, Twitter, WhatsApp, Blogs, Snapchat, LinkedIn, and YouTube as indispensable parts of their daily lives. The use of SM is seen as an opportunity to go beyond the classroom and has become crucial for FL learning.

SM has a crucial effect on learners' language skills, especially on communication. It provides learners a collaborative atmosphere where they can communicate with other users, socialize online and take control of their informal learning activities. Users can share their ideas and feelings by writing (making comments), speaking (audio messages, video chats) or sending pictures, etc., create their area, acquire language structures and communication strategies subconsciously, follow a celebrity or a group of people from the target culture and get to know the community and culture via social media (Sharma, 2019). Hence, they actually have an appropriate platform on which they can communicate with native speakers of English about real-life situations (Faizi, El Afia & Chiheb, 2014). They can also watch and be exposed to different kinds of videos (e.g., talk-show, movie, debate, news, cartoons, vlogs) on SM (e.g., Twitter, YouTube, Instagram, Facebook). SM use allows users to experience authentic language and cultural norms that help users develop intercultural competence and linguistic and communicative competence (e.g., vocabulary, grammar, pronunciation, fluency) (Faizi *et*

al., 2014; Kuznetsova & Soomro, 2019). Besides accessing authentic language, SM makes creating and sharing new content possible for users who have become addicted to sharing their everyday life, talking about their hobbies, interests, ideas, and who want to keep in touch with other online users (Morahan-Martin & Schumacher 2003). When users create their content in the target language, they apply intakes to real-life situations and get feedback from other users (Joseph, 2011). The users operate in a relaxed atmosphere where there is no formal instruction. They feel more intrinsically motivated, which is related to having fun and enjoyment (Deci & Ryan, 1985) while performing their habitual daily routines through SM. This relaxed and flexible atmosphere also reduces users' anxiety as there are no evaluators (e.g., teacher, classmates) and no pressure (Faizi *et al.*, 2014). Researches indicate a positive relationship between SM and WTC. Faizi *et al.* (2014) researched FL learners' perceptions about social platforms. Learners opine that social media has improved their listening, reading, writing, and speaking skills. Sharma (2019) also conducted a study with sixty EFL learners at Jazan University in Saudi Arabia. According to the results, students have positive attitudes toward using SM, and they feel less apprehensive, more self-reliant and motivated, and more WTC in English while using SM. Online research was conducted by Stevenson and Liu (2010) on learners' use of FL websites and social purposes. Three FL websites were taken into consideration. The findings indicate that learners have fun while using these websites (especially with one in particular), and they think that the websites are helpful in developing their language skills. Another study (Gupta & Bashir, 2018), which was carried out with 420 university students from 6 different universities in India, shows that social networking usage is beneficial in four other areas: academic, entertainment, informativeness, and socialization. Ke and Cahyani's (2014) study demonstrated that 58 Taiwanese and 48 Indonesian students used email, Facebook, and MSN in six activities across two semesters. Many Taiwanese students opined that some norms associated with native speakers might not be so crucial for intercultural

communication. They became less anxious about grammar usage after using English in written communication via social media. They also gained self-confidence and developed positive attitudes about their English level to use it in international communication.

Another significant usage of digital/mobile devices is the participation in online games of digital natives who are absorbed by them because of their attractiveness and newness. In the last decades, single-player online games have given way to multiplayer online games as a consequence of WEB 3.0 and WEB 4.0 developments, so massively multiplayer online role-playing games (MMORPGs, e.g., WOW, Player Unknown's Battlegrounds (PUBG), the Sims) has been the trendiest of such online games (Azman & Farhana-Dollsaid, 2018).

MMORPGs are a kind of digital game where millions of players across the world can join at the same time and create a virtual world by choosing a character for themselves. Players have to interact with other players, objects, and resources and also make strategies and plans in the games (Goh, 2016). Bryant (2006) defines MMORPGs as online games that allow players to personate and interact with other players in virtual environments via the Internet. Some MMORPGs are labelled as “serious games”, which refers to those games that have been enhanced with the aim of attracting and capturing gamers for some particular purposes - such as developing skills, making friends, and learning a language (Corti, 2006).

People have also started to use MMORPGs for FL learning in recent years because of their advantages in the language learning field, especially for communication skills. In MMORPGs, players use their characters for themselves separately or in a group to accomplish a specific task, make and apply some strategies, fight, trade and so on, and chat with one another to do these tasks using chat window or voice chats, which allow them to speak to one another in the games (Azman & Farhana-Dollsaid, 2018). This chatting environment makes players aware of the social norms of other players. It has useful information about the language, its community, and culture. It provides real-time practices for players (Bryant, 2006) because they

actively participate in task-based communication activities in which they procure useful forms of conversations (e.g., negotiation of meaning, explanations, argumentation) (Blake, 2000; Lantolf, 2000). According to Kongmee, Strachan, Montgomery & Pickard (2011), there are three stages in these games for communication; a pre-game stage in which the players look for information about the games by looking at blogs or other websites; an in-game stage in which the players engage in real communication with others; and a post-game stage where the strategies or thoughts about the games are shared via social networking sites and chat with other players. The players also need to read game instructions to complete the tasks successfully and go on to the next level. Reading in these games supports communication because if the players have any difficulties in understanding the instructions, they try to negotiate the meaning by asking other players. Furthermore, players make observations on games, other players, written or spoken conversations and then excogitate about linguistic forms, formulize rules and solicit feedback from others, which are all rather helpful for players to enhance linguistic achievement (Kolb, 1984; Kongmee *et al.*, 2011). Accordingly, MMORPG players can obtain social and linguistic skills from these games and apply them to daily life (Eustace, Lee, Fellows & Bytheway, 2004). In other words, the skills encountered in a specific game task in the virtual world are possible to transfer to the real world. Additionally, MMORPGs provide learners with a virtual environment in which they can form a new identity by using characters while taking fewer risks. They can become solution-oriented and autonomous without instructor control, and acquire shared knowledge in a riveting atmosphere (Kongmee *et al.*, 2011). The characters that the players choose for themselves reflect their physical and mental state in a social setting. They are helpful in decreasing the players' anxiety and increasing their self-confidence during the game (both of these factors being known as important mindsets for WTC), because the characters allow the players to hide their real identities, unlike in the classroom setting (Aymerich-Franch, Kizilcec & Bailenson, 2014). Even if players make big mistakes in the

games, they can continue to play, or if they want, they can step back (Kongmee *et al.*, 2011). Those players who are normally shy and who avoid risky ventures also gain favor from MMORPGs as they gain self-confidence by interacting with other players. Having an informal environment is also a factor for less anxiety and more self-confidence for players (Kongmee *et al.*, 2011). Also, having fun and enjoyment while playing allows the players to be more intrinsically motivated (Thorne, 2008).

Berns, Palomo-Duarte, Dodero & Valero-Franca (2013) carried out a study with German foreign language learners. They designed a 3D online role-playing game in which learners can communicate. The results show that chatting in games enhances learners' communicative competence. In another study that Thalemann conducted, Wölfling and Grusser (2007) demonstrate that players pay more attention to game materials and become highly motivated while playing a game. Bytheway (2013) also carried out a case study with players from New Zealand and the Netherlands. According to the results, an online game atmosphere promotes learners' curiosity and improves interaction with other players. Also, Rankin, Wells, McNeal, Shute, and Gooch (2008) researched EFL learners by considering their interactions while playing MMORPGs, and they found that learners improve their language skills in post-test scenarios thanks to the games. However, some studies assert that MMORPGs do not affect non-advanced learners. Rankin, Gold & Gooch (2006) carried out research with ESL students, and they concluded that MMORPGs are helpful for intermediate and advanced students. Similarly, Rama, Black, Van-Es, and Warschauer (2012) state in their study that benefiting from MMORPGs presupposes a certain level of self-confidence in the target language.

CHAPTER 3

Methodology

This study was conducted to determine the university students' WTC in the classroom and in the informal digital context, the differences between the two contexts, and the effects of the university students' personalities on their WTC in these two contexts in the EFL setting.

Research Design

This research was carried out in the 2020-2021 fall semester with university engineering students studying at various universities across Turkey. Necessary permissions were received from the Uludag University ethics committee to collect data on 27th November 2020 (See appendix E). The study adopted a mixed method. That is, the qualitative method was used alongside the quantitative method in this research. Dörnyei (2007) explains that quantitative studies are based on the results of collected numerical data which is analyzed using statistical methods. Qualitative studies, on the other hand, are based on meaning and words (Brannen, 2005). Therefore, the qualitative method was used to support quantitative data and to access more in-depth information. In this way, the relationship between students' personalities and their WTC in the classroom and IDLE context will be seen more clearly.

The scales were delivered to students online via google forms with the study's purpose being explained to the participants in the introduction. The participants were also informed that this was voluntary, and an item was added at the beginning of the scales where they could confirm that they were participating in the study voluntarily. The voluntary response and snowball sampling methods (Cohen, Manion & Marrison, 2007), both non-probability sampling methods, were used to choose the participants and collect data. The voluntary response method provides for access to willing volunteers who meet the required qualifications (Murairwa, 2015), and the snowball method targets participants who are difficult to reach by asking those

who have already been contacted to reach out to other people meeting the same conditions (Thompson, 2002).

For the qualitative analysis, 20 people were randomly selected from the 170 people who had previously filled in the questionnaires. Telephone conversations were held with the participants using the 'individual interview method' (Holstein, 2002). Semi-structured interview questions, which may include both open-ended and closed-ended questions, and participants' opinions on the subject are included without being blindly attached to the questions (Newcomer, Hatry & Wholey, 2015), were asked. A table was prepared to create the interview questions. The table was divided into sub-headings containing the subjects of the research, and open and closed-ended questions were determined by considering the research questions. Semi-structured questions had two different levels of questions as main theme questions and follow-up questions (Kallio, Pietila, Johnson & Kangasniemi, 2016). The main theme questions were those related to the main topics in the research, helping the participants express their thoughts freely and relax. On the other side, the follow-up questions provided a deeper examination of the main issues in the study and detailed conversation about the topics (Kallio *et al.*, 2016). Internal testing was applied on the questions together with the academic advisor to review and correct the inappropriate and incomprehensible questions and eliminate any possible bias (Chenail, 2011). Another English teacher also evaluated the questions to get an outside opinion and approach the questions more critically. The interview was conducted in Turkish; then, the researcher translated it into English. The academic advisor checked the translations of the questions. At the beginning of the interviews, the researcher briefed the participants about the study's goal, and their permission was obtained for the audio recording. The participants' initials were taken to facilitate the examination of the answers, distinguish between participants, and make them feel comfortable. Subsequently, their answers were recorded on a laptop, and the researcher took notes. Approximately ten minutes were given for each participant.

Participants

Survey Participants

Participants were selected from university students who were studying in engineering departments at the time of the data collection. To learn about their WTC in the classroom and in the informal digital context, those who play online games and actively use social media were selected. The participants were 170 engineering students at different universities across Turkey. One hundred and four (61.2%) of these participants were men, and sixty-six (38.8%) were women. They were studying in various fields of engineering. Their ages ranged from 19 to over 25. The reason why engineering students were chosen as participants is that there is a high possibility that they would later work in an international company and need to use English language during their careers. In fact, the majority of engineering students try to improve their foreign language skills to find a good job in an international company. To find a good job and working environment, they must have a satisfactory English level. The descriptive features of the participants are presented in Table 1.

Table 1 *Survey Participants by University*

Descriptive Features		n	%
University	İstanbul Technical University	30	17.6
	Bülent Ecevit University	17	10.0
	Karabük University	15	8.8
	Kocatepe University	15	8.8
	Cumhuriyet University	15	8.8
	Kocaeli University	8	4.7

Namık Kemal University	7	4.1
Gazi University	7	4.1
Uludağ University	4	2.4
İstanbul Medeniyet University	3	1.8
Marmara University	3	1.8
Sıtkı Koçman University	3	1.8
Celal Bayar University	3	1.8
Osmangazi University	2	1.2
Gümüşhane University	2	1.2
Fırat University	2	1.2
Karaelmas University	2	1.2
Sakarya University	2	1.2
Doğu Akdeniz University	2	1.2
Türk Alman University	2	1.2
Bahçeşehir University	2	1.2
Alanya Alaaddin Keykubat University	1	0.6
İstanbul Aydın University	1	0.6
Ondokuz Mayıs University	1	0.6
Harran University	1	0.6
Süleyman Demirel University	1	0.6
Erciyes University	1	0.6

Recep Tayip Erdoğan	1	0.6
University		
Bilecik Şeyh Edebali	1	0.6
University		
Anadolu University	1	0.6
İnönü University	1	0.6
İstanbul Sabahattin Zaim	1	0.6
University		
Bilgi University	1	0,6
Bartın University	1	0.6
Necmettin Erbakan	1	0.6
University		
Boğaziçi University	1	0.6
Bilkent University	1	0.6
Dokuz Eylül University	1	0.6
Yeditepe University	1	0.6
Kâtip Çelebi University	1	0.6
Yıldız Technical University	1	0.6
Koç University	1	0.6
Erzurum University	1	0.6
İstanbul Kültür University	1	0.6
Selçuk University	1	0.6
Total	170	100

Table 1 presents information about the universities where the participants were studying. According to the table, the university with the largest number of participants was Istanbul Technical University (17.6%), followed by Bülent Ecevit University (10.0%). It is seen that the students were studying at 45 different universities in total.

Table 2 *Survey Participants by Department*

Descriptive Features		n	%
Departments	Mechanical Engineering	30	17.6
	Civil Engineering	27	15.9
	Biomedical Engineering	18	10.6
	Electrical and Electronic Engineering	15	8.8
	Mechatronics Engineering	14	8.2
	Industrial Engineering	13	7.6
	Computer Engineering	8	4.7
	Electrical Engineering	6	3.5
	Metallurgical and Materials Engineering	6	3.5
	Electronics and Communication Engineering	5	2.9
	Food Engineering	5	2.9
	Mining Engineering	3	1.8
	Engine Department	3	1.8
	Genetic Engineering	2	1.2

Geomatics Engineering	2	1.2
Environmental Engineering	2	1.2
Chemical Engineering	2	1.2
Manufacturing Engineering	2	1.2
Geological Engineering	2	1.2
Chemical and Biological Engineering	1	0.6
Geophysical Engineering	1	0.6
Rail Systems Engineering	1	0.6
Control Engineering	1	0.6
Automotive Engineering	1	0.6
Total	170	100

Table 2 presents information about the departments in which the participants were studying. The department with the largest number of participants was the mechanical engineering department, with thirty (17.6%) students, followed by civil engineering (15.9%).

Table 3 *Survey Participants by Class Level, Gender and Age*

Descriptive Features		n	%
Class Level	First year	63	37.1
	Second year	18	10.6
	Third year	35	20.6
	Fourth year	54	31.8
Gender	Male	104	61.2

	Female	66	38.8
Age	17-19	46	27.1
	20-22	74	43.5
	23-25	40	23.5
	25 and above	10	5.9
Total		170	100

Table 3 shows the class level, gender, and age of the students. One hundred and four male students and sixty-six female students participated in the study. At the time of the study, seventy-four (43.5%) of the participants were in the 20-22 years age range, followed by forty-six in the 17-19 years age range of (27.1%). In addition, first-year students accounted for the largest number of participants in the study, while second-year students accounted for the smallest number of participants. 63 (37.1%) of the participants were in 1st year, while 18 (10.6%) were in their second year.

Interview Participants

Table 4 *Survey Participants by University, Department, Class Level, Gender, Age, Being Abroad and Perceived Communication Level*

Descriptive Features	n	%
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University	İstanbul Technical University	10	50
	Yıldız Technical University	1	5
	Gazi University	1	5
	Marmara University	1	5
	Ege University	1	5
	Kocaeli University	1	5
	Karabük University	1	5
	Gaziantep University	1	5
	Celal Bayar University	1	5
	Kocatepe University	1	5
	Fırat University	1	5
Department	Civil Engineering	6	30
	Electrical and Electronic Engineering	2	10
	Metallurgical and Materials Engineering	2	10
	Engine Department	2	10
	Electrical Engineering	1	5
	Food Engineering	1	5
	Mechatronics Engineering,	1	5
	Industrial Engineering	1	5
	Biomedical Engineering	1	5
	Environmental Engineering	1	5
	Chemical Engineering	1	5
	Manufacturing Engineering	1	5

Class Level	First year	15	75
	Third year	1	5
	Fourth year	4	20
Gender	Male	10	50
	Female	10	50
Age	18	5	25
	19	9	45
	20	1	5
	21	1	5
	22	1	5
	23	3	15
Being	Yes	5	25
Abroad	No	15	75
Perceived	Proficient	1	5
Communication	Somewhat proficient	15	75
Level	Nonproficient	4	20
Total		20	100

Data Collection Instruments

A survey was utilized to gather quantitative data, and a semi-structured interview was used to collect qualitative data. The survey was composed of four parts in total. The first part aimed to collect demographic information. It consisted of 13 questions in total. These covered the students' university, department, age, university year, gender, whether they had ever travelled to an English-speaking country, whether they liked to study English, how many hours they spent learning English outside of the classroom, how much time they spent on social media

and online games, whether there were opportunities to talk to people who used English outside of the classroom, and whether they knew a language other than Turkish. They were also asked to evaluate their English proficiency levels (reading, writing, listening, speaking skills) in addition to the questions.

The second part of the survey used the WTC in the classroom scale with 10 items. The third part used the WTC in the informal digital context scale with 20 items, and the fourth part used the Big-Five personality traits scale with 20 items. All these three were based on 5-point Likert scales.

All three scales were translated into Turkish by the researcher. Additionally, new items were added to the WTC in the classroom and WTC in the informal digital context scales. In order to use the scales, the authors were contacted by e-mail and the necessary permissions were obtained before the scales were adapted. The scales in their new form were examined by the researcher's academic advisor, two master's students studying at Uludağ University's English Language Education Department, a master's student and a research assistant working in the Department of Teaching Turkish as a Foreign Language at İstanbul University. The scales were then sent to 30 university students who provided feedback on the comprehensibility of the items. After making the necessary adjustments in the verbalization of the items, the researcher's academic advisor compared them with the original scales. Since the scales had been translated into Turkish and new items had been added, factor analysis was performed to check their validity and reliability and to find out whether the scales were suitable for our study group.

WTC in the Classroom Scale. The WTC in the classroom scale was adapted from Baghaei's article "Developmental and psychometric evaluation of a multidimensional scale of willingness to communicate in a foreign language" (2013). The scale contains 20 items (excluding 2 items removed from the scale) in total (Cronbach's alpha: 0.78). Since the scale concerns learners' WTC in different environments, not all items were needed. Six items from between intervals

16 and 22 of the scale, which are related to WTC in the school context, were taken. The activities in which students can communicate with each other in the classroom environment, and the communication processes of students differ. For these reasons, since the original scale items were limited, the activities in which students could communicate most in the classroom were considered, and four more items were added to the scale. It was also aimed to make the scale more suitable for the EFL context with new items.

Table 5 *Items that were added to the WTC in the Classroom Scale*

Item Number	
3	I am willing to make comments in English when I participate in a whole class discussion.
5	I am willing to explain task instructions to my friends in English.
6	I am willing to talk to my classmates about my ideas and opinions in English during an assignment.
10	If I had a chance to take an optional English course, I would join it

WTC in the Informal Digital Context Scale. The WTC in the informal digital context scale was adapted from JS Lee and Drajati's "Affective variables and informal digital learning in English: Keys to willingness to communicate in a second language" (2019). The scale consists of seven parts in total. For this research, only the part related to productive IDLE activities (5 items) (Cronbach's alpha: 0.86), was used from the scale. The limited number of items

containing productive IDLE activities in the original scale necessitated new items to this scale. In particular, ten people who play online games and actively use social media were asked about the types of communication they use in these contexts, and 15 items related to the activities that were thought to be used the most were added to the scale.

Table 6 *Items that were added to the WTC in the Informal Digital Context Scale*

Item Number	
1	I am willing to use greeting sentences in English when I start a conversation with other game players.
2	I am willing to talk to other game players in English about a quest assignment.
3	I am willing to talk to other game players about characters in English during the game.
4	I am willing to read quest description/instructions in English before I start completing it.
5	I am willing to listen to what other game players say in English.
6	I ask for clarification in English when I am confused about a task I must complete.
7	I ask questions in English for comprehension check during the game.

8	I am willing to request for help in English during the game.
9	I am willing to talk about ideas and opinions in English during the game.
10	I am willing to talk about other game players' personal details (name, age, country) in English.
11	I am willing to communicate with other game players about politics of countries in English.
12	I am willing to communicate with other game players about order of the day in English.
16	I am willing to follow foreign people or foreign groups/teams on social media.
19	I am willing to comment on posts in English via social media.
20	I am willing to give/write answers to others in English via social media.

Big-Five Personality Traits Scale. The Big-Five personality traits scale with twenty items was taken from the article “The MINI IPIP Scales: Tiny-yet-effective measures of the Big-Five factors of personality” by Donnellan, Oswald, Baird, and Lucas (2006). The Cronbach’s alpha value of the items varied between 0.68 and 0.82. The average of the answers was calculated to determine which group the participants were in.

Furthermore, semi-structured interview questions were used for qualitative data collection afterwards. The interviews focused on the participants tendencies towards speaking English in the classroom and speaking English in the informal digital context. It also aimed to elicit data on how they feel in these contexts. The participants were asked questions regarding on which platform they are in contact with foreigners more, how they perceive English speaking, the experience of being abroad, social media, and online games.

Validity and Reliability Issues

The Kaiser Meyer-Olkin (KMO) test and Bartlett's test of Sphericity were applied to see if the sample group was suitable for the factoring, and whether the correlations were significant or not. Exploratory factor analysis (EFA) was then conducted in order to evaluate the construct validity of the scales and to reveal the dimension structure. Confirmatory factor analysis (CFA) was conducted to evaluate the structural validity of the scales after EFA. Since new items were added, EFA was applied to the scales of WTC in English in the classroom and in the informal digital context, while confirmatory factor analysis was applied to all three scales. Principal Component Analysis and Varimax rotation methods were used in EFA. Findings regarding the structure obtained with 1 dimension and 10 items of WTC in the classroom scale as a result of the analysis are presented in Table 7.

Table 7 Exploratory Factor Analysis Findings of Willingness to Communicate in the Classroom Scale

Kaiser-Meyer-Olkin (KMO) Sampling Adequacy Criterion		0.919
Bartlett's test of Sphericity	Approximate chi-square	1221.391
	value	
	Degrees of freedom	45
	Significance	0.0000

Total variance explained (%)	61.560
Item	Factor Loading
I am willing to talk to my classmates about my ideas and opinions in English during an assignment.	0.856
I am willing to talk and express my opinions in English in the class when all my classmates are listening to me.	0.834
I am willing to make comments in English when I participate in a whole class discussion.	0.830
I am willing to explain task instructions to my friends in English.	0.819
I am willing to ask questions in English in the classes at the university.	0.816
In group work activities in the class when the group is composed of my friends, I am willing to speak in English.	0.814
In group work activities in the class when the group is NOT composed of my friends, I am willing to speak in English.	0.804
I am willing to have pair and group activities in the class so that I can talk in English with my classmates.	0.792
I am willing to give a presentation in English in front of my classmates.	0.759
If I had a chance to take an optional English course, I would join it.	0.435

As seen in Table 7, the KMO sampling adequacy criterion (0.919) and Bartlett's test of Sphericity value (1221.391; $p = 0.000$) were suitable for factor analysis and the total variance

explained was 61.56%. It was determined that the factor loadings of the items of the WTC in the classroom were in the range 0.856-0.435.

After EFA, CFA was conducted to the WTC in the classroom scale. It is seen that the fit index values of the scale model in Figure 2 were within acceptable fit values. According to the CFA findings, the scale items' factor loadings were found to be in the range 0.839-0.383 and were statistically significant. These findings show that the scale of WTC in the classroom has structural validity.

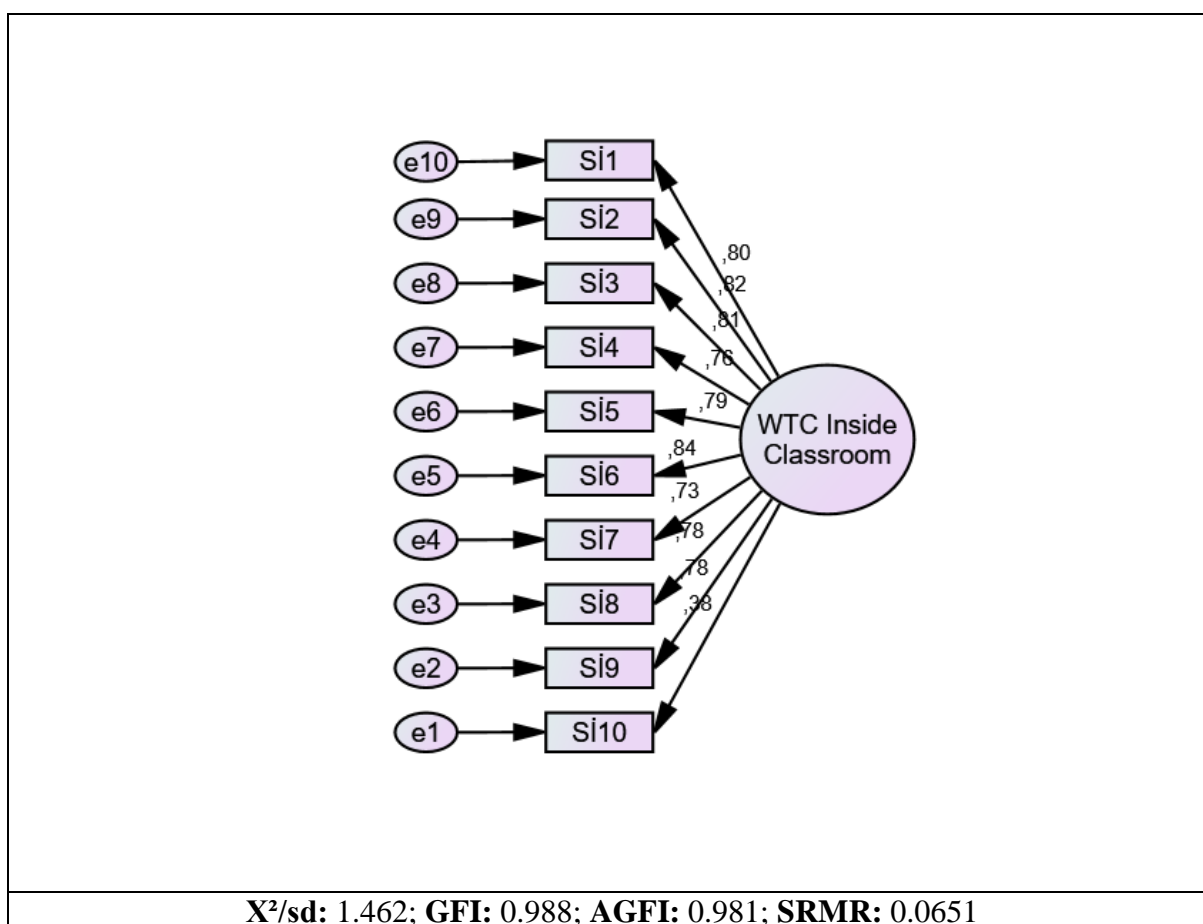


Figure 2. Willingness to Communicate in the Classroom Scale Confirmatory Factor Analysis Model

EFA was also conducted in order to evaluate the construct validity of the WTC in the informal digital context scale used in the research and to reveal its dimension structure. Principal Component Analysis and Varimax rotation methods were used in EFA. The findings

related to the structure obtained with 1 dimension and 20 items as a result of the analysis are presented in Table 8.

Table 8 *Exploratory Factor Analysis Findings of the Willingness to Communicate in the Informal Digital Context Scale*

Kaiser-Meyer-Olkin (KMO) Sampling Adequacy Criterion		0.883
Bartlett's test of sphericity	Approximate chi-square	2124.229
	value	
	Degrees of freedom	210
	Significance	0,000
Total variance explained (%)		41.277
Item	Factor Loading	
I am willing to listen to what other game players/ social media users say in English.	0.771	
I am willing to ask for clarification to other game players in English when I am confused about a task I must complete.	0.753	
I am willing to talk about ideas and opinions in English during the game.	0.742	
I am willing to ask questions in English for comprehension check during the game.	0.733	
I am willing to talk to other game players in English about a quest assignment.	0.729	
I am willing to talk to other game players about characters in English during the game.	0.698	
I am willing to share English contents online.	0.694	

I am willing to request for help in English during the game.	0.693
I am willing to give/write answers to others in English via social media.	0.692
I am willing to comment on posts in English via social media.	0.653
I am willing to use technology to connect with native speakers of English (e.g., American, British).	0.644
I am willing to communicate with other players / social media users about our personal information (name, age, country, etc.) in English.	0.619
I am willing to communicate with other game players/ social media users about order of the day in English.	0.611
I am willing to send an email to others in English.	0.603
I am willing to use English greetings (Hi, how are you, what's up etc.) when starting to talk to other players / social media users.	0.599
I am willing to follow foreign people or foreign groups/teams on social media.	0.598
I am willing to use technology to connect with non-native speakers of English all over the world (e.g., Japanese, Chinese).	0.571
I am willing to read quest description/instructions in English before I start completing.	0.565
I am willing chat with others in English via social media (e.g., Facebook, Twitter, WhatsApp, Line, WeChat).	0.563
I am willing to communicate with other game players/social media users about politics of countries in English.	0.474

As seen in Table 8, KMO sampling adequacy criterion (0.883) and Bartlett's test of Sphericity value (2124.229; $p = 0.000$) were determined to be suitable for factor analysis, and the total variance explained was 41.27%. It was stated that 30% of the variance explained in single factor scales would be sufficient (Büyüköztürk, 2004). It was determined that the factor loadings of the items of the WTC in the informal digital context scale were in the range 0.771-0.474.

CFA was conducted in order to evaluate the structural validity of the WTC in the informal digital context scale after EFA. It is seen that the fit index values of the scale model in Figure 3 were within acceptable fit values. According to the CFA findings, the factor loadings of the scale items were found to be in the range 0.761-0.458 and statistically significant. These findings show that WTC in the informal digital context has structural validity.

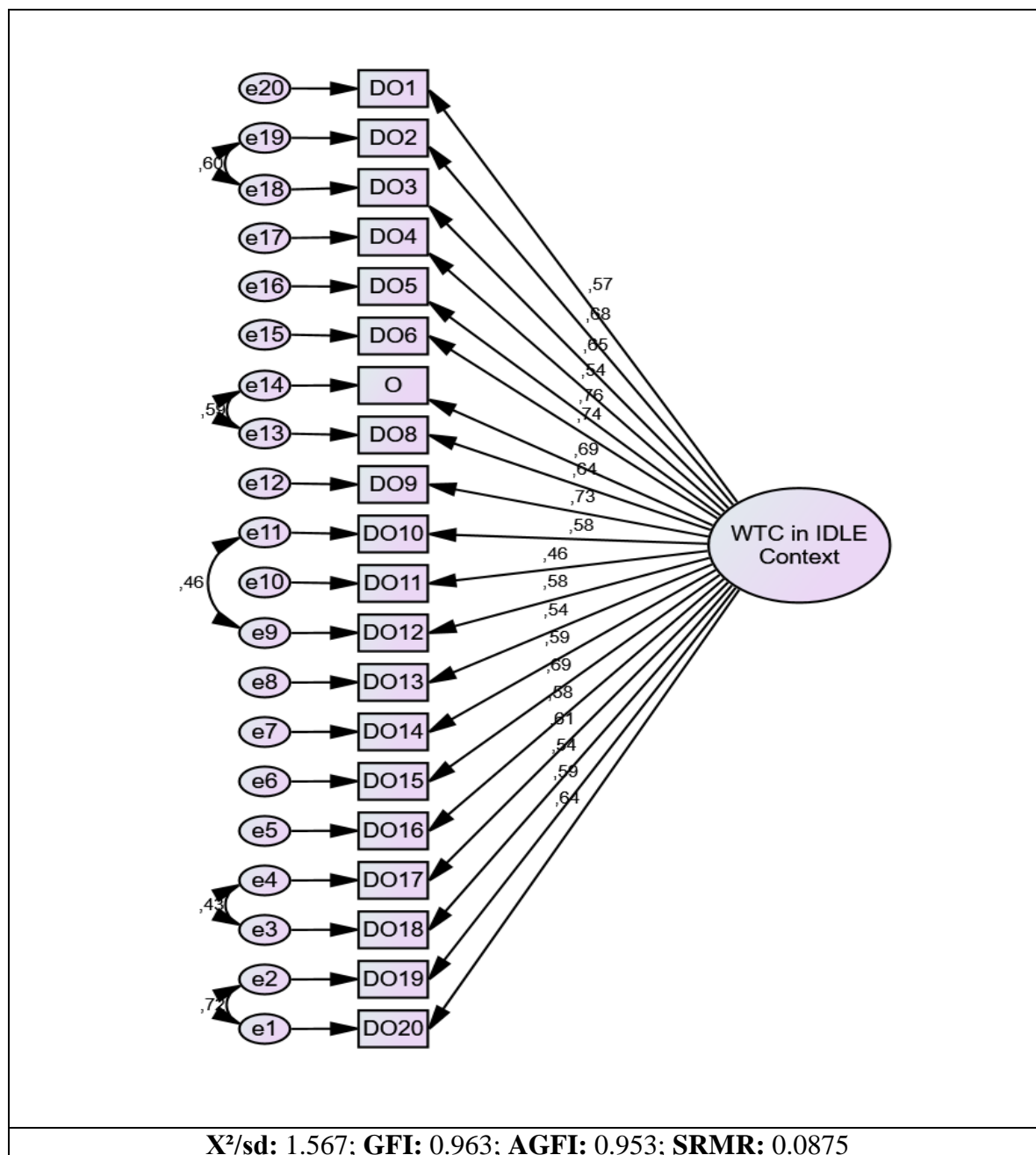


Figure 3. Willingness to Communicate in the Informal Digital Context Scale Confirmatory Factor Analysis Model

CFA was conducted to evaluate the construct validity in the Big-Five personality scale. Before CFA analysis, the items "I don't talk a lot", "I keep in the background", "I am not interested in other people's problems", "I am not really interested in others", "I often forget to put things back in their proper place.", "I make a mess of things", "I am relaxed most of the time", "I seldom feel blue", "I am not interested in abstract ideas", "I have difficulty

understanding abstract ideas" and "I do not have a good imagination " were reverse coded. In the analyses, the items with low factor loadings and which disrupted the scale structure were removed one by one and the analyses were re-performed. It is seen that the fit index values of the scale model consisting of 5 dimensions and 14 items were within acceptable fit values. According to the CFA findings, the factor loadings of the items of the extraversion dimension were between 0.759 and 0.481, the factor loadings of the items of the agreeableness dimension were between 0.778 and 0.522, the factor loadings of the conscientiousness dimension items were between 0.479 and 0.445, the factor loadings of the items of the neuroticism dimension were between 0.607 and 0.573, and the factor loadings of the items of the intellect/imagination dimension were found to be between 0.737 and 0.547. These findings show that the Big-Five personality traits scale has structural validity.

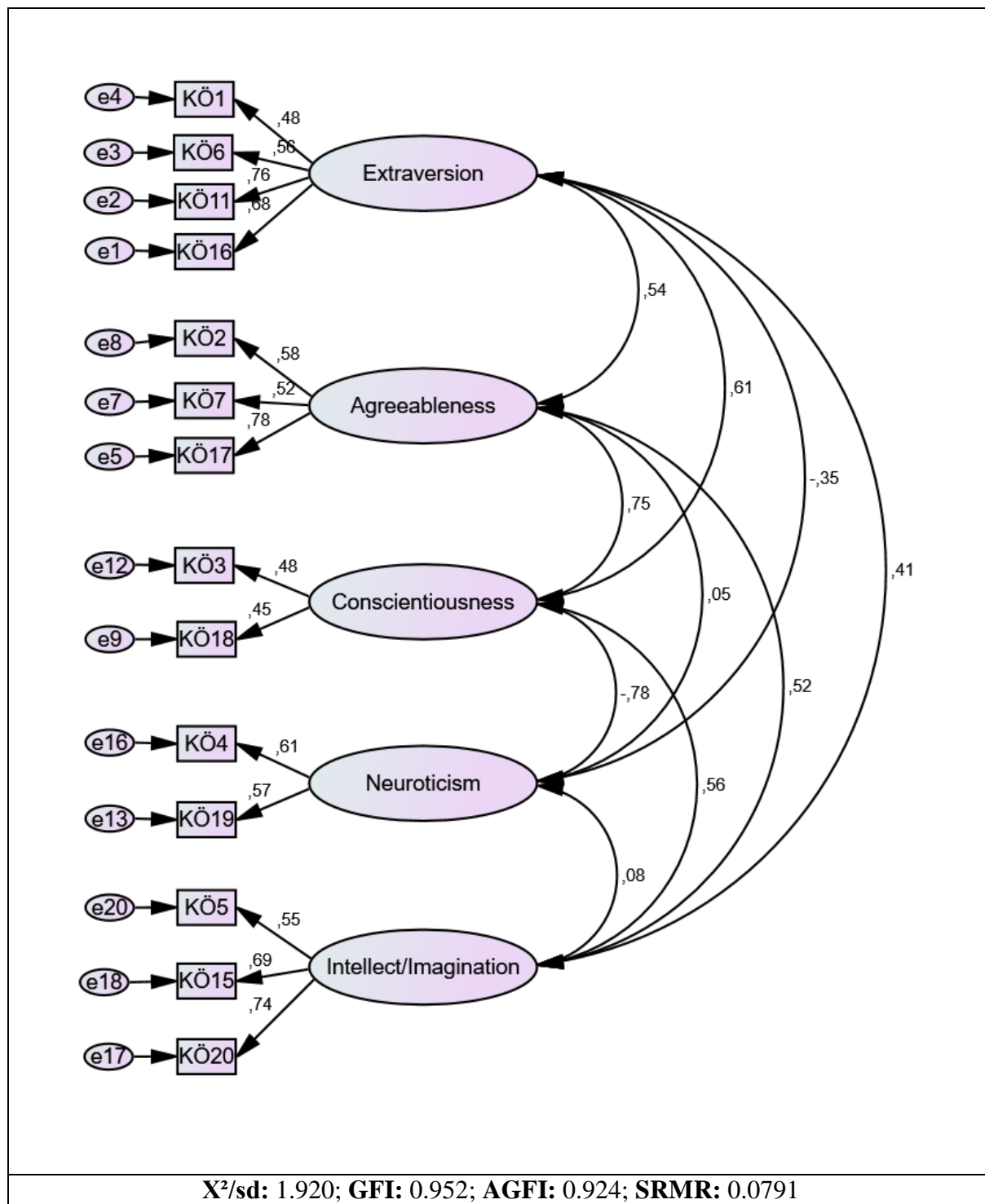


Figure 4. Big-Five Personality Traits Scale Confirmatory Factor Analysis Model

The descriptive and reliability analysis findings of the research scales are shown in Table 9. According to these findings, it was determined that the mean of the scale for WTC in the classroom was 3.30 ± 0.82 , and the mean of the scale for WTC in the informal digital context

was 3.72 ± 0.66 . According to the Kurtosis and skewness values, the variables were normally distributed, and the scales were reliable according to the Cronbach's alpha values.

Table 9 *Findings Related to Research Scales*

Variable		Mean	STD	Min	Max	Kurtosis	Skewness	Cronbach's Alpha
Willingness to Communicate in the Classroom		3.30	0.82	1.00	5.00	0.406	-0.552	0.925
Willingness to Communicate in IDLE Context		3.72	0.66	1.45	5.00	0.684	-0.596	0.926
Extraversion		3.44	0.83	1.25	5.00	-0.583	-0.304	0.711
Agreeableness		3.72	0.77	1.33	5.00	0.423	-0.712	0.652
Conscientiousness		3.75	0.71	1.75	5.00	-0.253	-0.542	0.351
Neuroticism		3.31	0.92	1.00	5.00	-0.818	-0.024	0.514
Intellect/Imagination		3.94	0.78	1.67	5.00	-0.727	-0.083	0.701

In the Big-Five personality traits scale, the highest mean was found in the intellect/imagination (3.77 ± 0.66) sub-dimension, and the lowest mean was found in the neuroticism (3.31 ± 0.92) sub-dimension. The scale was found to be normally distributed according to the values of skewness. According to the Cronbach's alpha values for the reliability of the scale, it was determined that the dimensions of extraversion, agreeableness, neuroticism, and intellect/ imagination were reliable. However, as a result of the evaluations, it was determined that the Cronbach's alpha value of the conscientiousness dimension was low,

and this dimension was not reliable. For this reason, the conscientiousness dimension was removed from the data analysis.

Data Analysis

The data were analyzed using SPSS 24 and AMOS 24 statistical programs. The validity of the scales used in the study was evaluated by EFA and CFA. In EFA, the suitability of the data for factor analysis was evaluated by the Kaiser-Meyer-Olkin Coefficient and Bartlett's test of Sphericity. The KMO value being above 0.500 and the significant chi-square value calculated in the Bartlett's test of Sphericity ($p < 0.05$) indicates that the data were suitable for factor analysis (Altunışık, Coşkun, Bayraktaroğlu & Yıldırım, 2012; Büyüköztürk, 2017; Çokluk, Şekercioğlu, Büyüköztürk, 2010; Karagöz, 2016). In the CFAs, the significance of the factor loadings of the scale items and the compatibility of the fit indices of the scale model were evaluated. The good fit and acceptable fit values for fit indices evaluated in the CFA analyses are presented in Table 10.

Table 10 *Fit Criteria of Fit Indices*

Fit Index	Good Fit	Acceptable Fit
χ^2/df	≤ 3	≤ 5
GFI	$0.90 \leq GFI \leq 1.00$	$0.85 \leq GFI < 0.90$
AGFI	$0.90 \leq AGFI \leq 1.00$	$0.85 \leq AGFI < 0.90$
SRMR	$0 < RMR \leq 0.05$	$0.05 < RMR \leq 0.10$

The reliability of the scales was evaluated with the Cronbach's Alpha coefficient. The fact that the Cronbach's Alpha coefficient was greater than 0.600 shows that the scale is quite reliable (Karagöz, 2016). Frequency, percentage, mean, standard deviation, minimum and maximum values are given in the descriptive findings. It was determined that the skewness and Kurtosis values of the data related to the variables were in the range of ± 2 and meet the normal distribution assumption (Pituch & Stevens, 2016). The T-test was used to compare two independent groups, and ANOVA testing was used to compare three or more groups. When a statistically significant difference was found in the ANOVA testing, multiple comparison tests were conducted to reveal the differences between the groups. Any relationships between the variables were evaluated using Pearson correlation analysis. The effects of the independent variables on the dependent variable were analyzed using regression analysis. Statistically, a value of $p < 0.05$ was considered significant.

The interview data were analyzed through the content analysis method. First, the audio recordings were transcribed and read many times by the researcher. All of the answers were analyzed and subdivided inductively (Elo & Kyngas 2008). Then, sub-categories were grouped according to research topics, and common concepts were highlighted. The categories were created by coding these common aspects.

CHAPTER 4

Findings

In this chapter, the findings of the quantitative and qualitative data results will be presented. Quantitative and qualitative data results will be given to answer the first research question, and quantitative data results will be shown to answer the last three questions. Results are given for each research question respectively.

Quantitative and Qualitative Data Results

Research question 1. What are the reasons for the differences between students' WTC in the English class and in the informal digital context, if any?

Table 11 *Descriptive Findings of the WTC in the Classroom*

Items	Mean	STD
I am willing to ask questions in English in the classes at the university.	3.23	1.07
I am willing to talk and express my opinions in English in the class when all my classmates are listening to me.	3.28	1.09
I am willing to make comments in English when I participate in a whole class discussion.	3.25	1.08
I am willing to have pair and group activities in the class so that I can talk in English with my classmates.	3.44	0.99
I am willing to explain task instructions to my friends in English.	3.32	1.00
I am willing to talk to my classmates about my ideas and opinions in English during an assignment.	3.28	1.02
I am willing to give a presentation in English in front of my classmates.	3.05	1.09

In group work activities in the class when the group is composed of my friends, I am willing to speak in English.	3.34	1.06
In group work activities in the class when the group is NOT composed of my friends, I am willing to speak in English.	3.17	1.02
If I had a chance to take an optional English course, I would join it.	3.68	1.15

When Table 11 is evaluated, the 3 statements with the highest average are: "If I had a chance to take an optional English course, I would join it" (M: 3.68 ± 1.15), "I am willing to have pair and group activities in the class so that I can talk in English with my classmates" (M: 3.44 ± 0.99) and "In group work activities in the class when the group is composed of my friends, I am willing to speak in English" (M: 3.34 ± 1.06); The 3 statements with the lowest expressions are "I am willing to give a presentation in English in front of my classmates" (M: 3.05 ± 1.09), "In group work activities in the class when the group is not composed of my friends, I am willing to speak in English" (M: 3.17 ± 1.02) and "I am willing to ask questions in English in the classes at the university" (M: 3.23 ± 1.07).

Table 12 *Descriptive Findings of the WTC in the Informal Digital Context*

Items	Mean	STD
I am willing to use English greetings (Hi, how are you, what's up etc.) when starting to talk to other players/social media users.	4.07	0.94
I am willing to talk to other game players in English about a quest assignment.	4.01	0.92
I am willing to talk to other game players about characters in English during the game.	3.92	0.93

I am willing to read quest description/instructions in English before I start completing it.	3.72	1.07
I am willing to listen to what other game players/social media users say in English.	4.03	0.85
I am willing to ask for clarification to other game players in English when I am confused about a task I must complete.	3.69	0.97
I am willing to ask questions in English for comprehension check during the game.	3.65	0.99
I am willing to request for help in English during the game.	3.60	0.99
I am willing to talk about ideas and opinions in English during the game.	3.60	1.03
I am willing to communicate with other players/social media users about our personal information (name, age, country, etc.) in English.	3.70	1.01
I am willing to communicate with other game players/social media users about politics of countries in English.	3.24	1.21
I am willing to communicate with other game players/social media users about order of the day in English.	3.49	1.10
I am willing to chat with others in English via social media (e.g., Facebook, Twitter, WhatsApp, Line, WeChat).	3.88	0.92
I am willing to send an email to others in English.	3.49	1.11
I am willing to share English content online.	3.44	1.07
I am willing to follow foreign people or foreign groups/teams on social media.	3.88	1.06
I am willing to use technology to connect with native speakers of English (e.g., American, British).	4.06	0.89

I am willing to use technology to connect with non-native speakers of English all over the world (e.g., Japanese, Chinese).	3.63	0.98
I am willing to comment on posts in English via social media.	3.57	1.16
I am willing to give/write answers to others in English via social media.	3.64	1.11

When Table 12 is evaluated, the 3 expressions with the highest mean are “I am willing to use English greeting sentences (Hi, How are you, What's up etc.) when starting to talk to other players/social media users” (M: 4.07 ± 0.94), “I am willing to use technology to connect with native speakers of English (e.g., American, British).”(M: 4.06 ± 0.89) and “ I am willing to listen to what other players/social media users say in English ”(M: 4.03 ± 0.85); the 3 statements with the lowest expressions are "I am willing to communicate with other game players/ social media users about politics of countries in English" (M: 3.24 ± 1.21), "I am willing to share English content online" (M: 3.44 ± 1.07) and "I am willing to communicate with other players/social media users about order of the day in English" (M: 3.49 ± 1.10).

Table 13 *Comparison of the Students' WTC in English in the Classroom and Informal Digital Context*

Variable	Mean	STD	Min	Max	Kurtosis	Skewness	Cronbach's Alpha
Willingness to Communicate in the Classroom	3.30	0.82	1.00	5.00	0.406	-0.552	0.925
Willingness to Communicate in the Informal Digital Context	3.72	0.66	1.45	5.00	0.684	-0.596	0.926

According to table 13, it can be said that the rates of students' WTC both in the classroom and informal digital environment are satisfactory. When table 10 is evaluated (presented under research question 2), there is a significantly positive ($p < 0.05$) relationship between the "WTC in the classroom" scale and "WTC in the informal digital context". This shows that those who are willing to communicate in English in the classroom are also willing to communicate in English in the informal digital context. However, the mean of WTC in the classroom was found to be 3.30 (M: 3.30), and the mean of the WTC in the informal digital context was found to be 3.72 (M: 3.72). Based on this, it can be clearly stated that students are more willing to communicate in English in the informal digital context than in the classroom.

Table 14 *Factors Affecting WTC in the Classroom*

Affective Factors	Fear of making mistakes	6
	Fear of being evaluated	6
	Lack of self-confidence	4
	Fear of criticism	4
	L2 communication anxiety	2
Interlocutor	Interlocutor familiarity	7
Classroom Atmosphere	Teacher	3
	Group Size	4
Proficiency in English	Communication practice	3
	Vocabulary knowledge	2
	Grammar knowledge	2
Topic	Topic familiarity	2
Experience of Being Abroad		4

Table 14 shows that six basic categories affect students' WTC in the classroom. According to the results, affective factors are among the most crucial factors affecting WTC, with the four sub-factors being fear of making mistakes, fear of being evaluated, lack of self-confidence, and L2 communication anxiety. Some example meaning units are given below:

“When speaking English in class, I often feel nervous. It would be better for me to speak Turkish. I feel diffident when I speak English...” (A.E., female, somewhat proficient).

"I get nervous when speaking English in face to face classes. I'm afraid of making mistakes when I speak English. I'm nervous, but I can still say what I want to say..."
(I.F., female, somewhat proficient).

"When I speak English in class, I feel anxious and insecure. I panic because my classmates might think negative things about my speech. My anxiety level increases out of trying to speak correctly. Knowing that the teacher will evaluate me also affects me negatively..." (P.K, female, nonproficient).

"I feel a little nervous when speaking English in class. I'm afraid of making mistakes. I think my friends will make fun of me..." (U.T., male, nonproficient).

It is observed that students are most afraid of making mistakes and being evaluated while speaking English in the classroom. Fear of being criticized by classmates, lack of self-confidence, and communication anxiety are the following factors. In addition to these, interlocutor familiarity emerges as another affective factor for WTC.

"...If I have close friends in my class, I won't be too embarrassed, but still a little scared"
(B.D., female, somewhat proficient).

"...At first, I feel stressed that I may make mistakes when speaking English, but as I get to know the teacher and classmates, I relax" (N.A., female, somewhat proficient).

"I get very nervous when speaking English in class... I wouldn't feel so nervous if I only had close friends in class" (S.Y., female, nonproficient).

Based on these answers, it can be said that students are less stressed when speaking English alongside their close friends, i.e., people they know better, and this makes them more willing to talk. It is concluded from the interviews that another factor affecting WTC is the classroom atmosphere that includes both teacher and group size factors.

"...Having the teacher in the classroom creates a more formal environment, so I feel more stressed when speaking English" (U.T., male, nonproficient).

"...My willingness to speak changes from teacher to teacher. The classroom atmosphere becomes tense if the teachers are also tense and I don't want to talk. Some teachers are more relaxed. In that case, I am not afraid of speaking English" (I.F., female, somewhat proficient).

"...I get stressed when speaking English in class, but when the classroom is crowded, my stress level gets even higher" (Y.B.S., male, somewhat proficient).

The crowded class and the teacher being in the classroom are also prominent factors that negatively affect students speaking English. The more the number of people in the classroom decreases, the more students' WTC increases. However, the level of proficiency is also a factor affecting WTC in the classroom for students.

"When I speak English in class, I don't feel confident enough because I haven't done much English speaking practice..." (Y.B.S., male, nonproficient).

"I get stressed when speaking English in class. The crowd doesn't affect me much, but I think I am not proficient in English. If I had practice, I would be more comfortable when talking" (Y.G., male, somewhat proficient).

"If I remember the right words when I speak, I feel comfortable, but when I do something wrong, I panic. This is somewhat due to my level of English proficiency..." (Y.T., male, somewhat proficient).

"...When speaking English, I am not sure if the sentences are correct and I think I will make a mistake. The more I try to get the sentences right, the more confused I am, and I don't want to talk..." (S.Y., female, nonproficient).

Examining the answers, students' lack of vocabulary, grammar, and communication practice are barriers to their willingness to speak. On the other hand, students who think their proficiency level is high stated that they feel comfortable speaking English in the classroom and want to talk more.

"I enjoy speaking English in class because my level of proficiency is higher than others, so I am confident. Knowing the other person's level of competence makes me comfortable..." (E.P., male, somewhat proficient).

"When speaking English in class, I am not nervous, I am not very stressed. Almost everyone has the same level of proficiency as me. That's why I don't avoid talking..." (İ.T., male, somewhat proficient).

WTC of the students who consider their level of English proficiency to be high is greater than others. However, topic familiarity is another factor that affects WTC.

"If the topic we are talking about in class is something that I know a lot about, I do not hesitate to speak English. But if we are talking about an issue I don't know, I get stressed, and I don't want to participate in the conversation" (M.T., female, somewhat proficient).

The last factor affecting WTC in English in the classroom is whether the participants have been abroad before.

"I can express myself in English in the classroom. It doesn't affect me if the classroom is crowded or the teacher is in the classroom. I think my experience abroad has an impact on my self-esteem. As I try to communicate in English with everyone abroad, I feel good speaking English in class as well" (A.C., male, proficient).

"Since I am not exposed to English much, I cannot practice much. I feel embarrassed when I have to speak in class... If I went abroad, I would like to speak English in class as well" (B.D., female, somewhat proficient).

"...I get stressed, and I think I am incapable of speaking English in class. Despite this, my level of English proficiency before I went abroad was much worse than it is now..." (U.T., male, nonproficient).

As can be seen, while students who have previously traveled abroad are more confident and willing to speak English in the classroom, students who have not been abroad before think

that this experience can be beneficial in speaking English in front of their classmates and teacher in the classroom.

Table 15 demonstrates the main factors that affect students' WTC in the informal digital context. According to the answers given in interviews, it is concluded that the factors affecting students' WTC in English in the classroom are different from the factors affecting their WTC in the informal digital context.

Table 15 *Factors Affecting WTC in the Informal Digital Context*

Category	Sub-Category	Frequency
Communication Style	Face to face/Written communication	13
	Peer to peer communication	4
Interlocutor		6
	Interlocutor familiarity	6
	Native/non-native interlocutor	4
	Turkish/Foreign interlocutor	4
	Proficiency level of interlocutor	2
Environmental Factor	Familiarity with the environment	

According to Table 15, three main categories influence students' WTC in the informal digital context. It is seen that the critical factor affecting students' WTC is the communication style. Some example meaning units are given below:

"Until now, I have had contact with foreign people through some online applications. I am much more comfortable speaking English than in the classroom because I have time

to think. In face-to-face communication, I have to respond immediately..." (E.A., female, nonproficient).

"It is much better to communicate in English through social media. Even if I make some mistakes, I don't care too much because it's not face-to-face, and I keep talking..." (B.D., female, somewhat proficient).

"...I usually communicate with foreign people on Twitter and WhatsApp. I am comfortable communicating in English on these channels because I can get help from the dictionary or the internet for things I don't know. I don't feel any pressure to speak very well. Since we do not communicate face to face, I am calmer. I usually initiate conversations" (I.F., female, somewhat proficient).

"I usually communicate on Facebook. Chatting feels much more comfortable than talking face-to-face. I can also say that communicating one-on-one with the other person instead of in a crowded group is the first factor that encourages me to talk..." (A.E., female, somewhat proficient).

More than half of the participants (n= 13) stated that written communication is why their WTC in English in the informal digital context is higher than in the classroom. Many participants, who said that they avoid speaking English in the classroom environment, stated that they do not avoid communication situations in English in informal digital settings. These participants emphasized that face-to-face communication is more stressful, written communication gives them time to think, and help can be obtained in the meantime. Peer to peer communication with the other person, not in a crowded environment, is another factor that

increases their WTC. However, it is seen that another factor affecting the communication in the informal digital context is the person whom the students are addressing and their proficiency level.

"I feel a bit shy when communicating with native English speakers. Because it is their mother tongue, I think my mistakes will be more obvious. I am more comfortable speaking to non-native speakers; however, proficiency levels are important. But I still feel more comfortable in these two situations than in the classroom environment" (R.U., female, somewhat proficient).

"I communicate with strangers through online games. Usually, we talk about daily life and games. I can speak more comfortably with those who speak English as a second or foreign language. Also, even if I make a mistake, there is no one to evaluate it. It is also a big factor that I will not see anyone again. Since I don't know anyone personally, I don't panic. If I speak English with Turks online, I get more nervous because they can criticize me" (P.K., female, nonproficient).

"...When communicating on social media, I usually feel comfortable because we don't know the other person. Even if we make mistakes, we don't get any negative feedback" (F.Ş., male, somewhat willing).

While communicating, the participants think that Turks will be criticized more than foreigners and avoid communication with them. Also, respondents are generally a bit more stressed when speaking to native English speakers than non-native speakers. This is due to the fear of not being understood by native speakers because of the students' low English level

compared to natives. Students generally think that non-native English speakers' levels are the same as their own level and feel more comfortable. In this sense, the English proficiency level is also an important factor, just like in the classroom setting. However, some students feel more comfortable speaking with native English speakers or do not think there is a difference between communicating with native and non-native speakers.

"I talk to many foreigners such as Russians, British people and Americans through online games. I am more comfortable with native English speakers; even if I make mistakes, they correct my mistakes and easily understand what I am trying to say. But I have a little more difficulty with non-native speakers as they may not understand me. Nevertheless, I see every situation as an opportunity and try to communicate" (K.G., male, somewhat proficient).

"I am less stressed when talking online. It doesn't matter to me to speak to someone whose native language is English or not. I can run the risk of making mistakes. I may be ridiculed in the classroom, but there is no such problem online" (F.A., male, somewhat proficient).

The last factor affecting students' WTC in the informal digital context is environmental factor. Two students stated that they are more comfortable in the environment they are familiar with.

"I am more comfortable talking online. Being at home has a big effect on this. There is nothing I do not know around me. Even my clothes make me comfortable at home. I

don't want to talk much in formal settings, but I like to talk in a place I'm familiar with”
(Y.T., male, somewhat proficient).

The results of the qualitative and quantitative data revealed six main categories affecting WTC in the classroom and three main categories affecting WTC in the informal digital context for the differences between these two contexts.

Research question 2. How do students' personalities affect their WTC in English in the classroom and informal digital context?

Table 16 Descriptive Findings of the Big-Five Personality Traits

Items	Mean	STD
Extraversion		
I am the life of the party.	3.82	1.08
I don't talk a lot.	3.10	1.29
I talk to a lot of different people at crowded places.	3.45	1.10
I keep in the background.	2.40	1.07
Agreeableness		
I sympathize with others' feelings.	4.13	0.84
I am not interested in other people's problems.	2.28	1.06
I feel others' emotions.	4.13	0.73
I am not really interested in others.	2.66	1.09
Neuroticism		
I have frequent mood swings.	3.75	1,18
I am relaxed most of the time.	3.73	1,00

I get upset easily.	3.44	1,18
I seldom feel blue.	3.12	1,07
Intellect/Imagination		
I have a vivid imagination.	4.11	0.94
I am not interested in abstract ideas.	2.47	1.09
I have difficulty understanding abstract ideas.	2.35	0.97
I do not have a good imagination.	1.91	1.04

As it is shown in Table 16, according to its sub-dimensions, the item with the highest average in the dimension of extraversion is "I am the life of the party" (M: 3.82 ± 1.08), and the item with the lowest average is "I keep in the background" (M: 2.40 ± 1.07); the items with the highest mean in the agreeableness dimension are "I sympathize with others' feelings." (M: 4.13 ± 0.84) and "I feel others' emotions" (M: 4.13 ± 0.73), while the item with the lowest mean is "I am not interested in other people's problems" (M: 2.28 ± 1.06); the statement with the highest average in the dimension of conscientiousness is "I like order" (M: 3.98 ± 0.96), the statement with the lowest is "I make a mess of things" (M: 1.92 ± 1.03); the item with the highest mean in the neuroticism dimension is "I have frequent mood swings" (M: 3.75 ± 1.18), the expression with the lowest mean is "I seldom feel blue" (M: 3.12 ± 1.07); the expression with the highest average in the intellect/imagination dimension is "I have a vivid imagination" (M: 4.11 ± 0.94), the expression with the lowest average is "I do not have a good imagination" (M: 1.91 ± 1.04).

The correlation analysis findings of the Pearson tests used in the study to determine the relationships between WTC in the classroom, WTC in the informal digital context and Big-Five personality traits scales are presented in Table 17.

Table 17 *Correlation Analysis Findings*

	1	2	3	4	5	6
1.Willingness to Communicate in the Classroom	1					
2.Willingness to Communicate in the Informal Digital Context	0.578**	1				
3.Extraversion	0.316**	0.113	1			
4.Agreeableness	0.065	0.139	0.361**	1		
5.Neuroticism	0.003	0.163*	-0.209**	0.034	1	
6.Intellect/Imagination	0.159*	0.160*	0.290**	0.359**	0.056	1

*p<0.05; **p<0.01

According to the findings in Table 17, there are significantly positive ($p < 0.05$) relationships between "WTC in the classroom" scale and "WTC in the informal digital context" and "Extraversion" and "Intellect/Imagination," which are dimensions of the personality scale.

There is a significant positive ($p < 0.05$) relationship between "WTC in the informal digital context" and "Neuroticism" and "Intellect/Imagination," which are the dimensions of the personality scale.

There is a positively significant ($p < 0.05$) relationship between "Extraversion" and "Agreeableness" and "Intellect/Imagination," one of the dimensions of the personality scale, and there is a negatively significant ($p < 0.05$) relationship between "Extraversion" and "Neuroticism".

It was determined that there is a positively significant ($p < 0.05$) relationship between "Agreeableness" and "Intellect/Imagination," one of the dimensions of the personality scale.

The regression analysis findings carried out to reveal the effects of the participants' personality traits on their WTC in the classroom are presented in Table 18.

Table 18 *Regression Analysis Findings Regarding WTC in the Classroom*

Variable	B	Standard Error	β	t	p
Constant	1.947	0.448		4.346	0.000
Extraversion	0.332	0.081	0.338	4.099	0.000
Agreeableness	-0.097	0.087	-0.091	-1.112	0.268
Neuroticism	0.064	0.067	0.072	0.946	0.345
Intellect/Imagination	0.094	0.084	0.089	1.116	0.266
R: 0.340 R ² : 0.115 F: 5.381 p: 0.000					

In the regression model in Table 18, "WTC in the classroom" was included as the dependent variable, and the "extraversion", "agreeableness", "neuroticism" and "intellect/imagination" dimensions of personality traits were included as independent variables. According to the findings, it was found that the model was significant ($F = 5.381$; $p = 0.000$). It is also seen that the dimensions of "extraversion", "agreeableness", "neuroticism" and "intellect/imagination" explained 11.5% of the total variance of "WTC in the classroom". The findings show that "neuroticism", "agreeableness" and "intellect/imagination" dimensions do not have a significant effect on "WTC in the classroom" ($p > 0.05$), but the "extraversion"

dimension, one of the personality traits, has a significantly positive effect ($\beta = 0,338$; $p = 0,000$) on "WTC in the classroom."

The findings of the regression analysis performed to reveal the effects of the participants' personality traits on their WTC in the informal digital context are presented in Table 19.

Table 19 *Regression Analysis Findings Regarding WTC in the Informal Digital Context*

Variable	B	Standard Error	β	t	p
Constant	2.504	0.371		6.745	0.000
Extraversion	0.078	0.067	0.099	1.166	0.245
Agreeableness	0.053	0.072	0.062	0.730	0.466
Neuroticism	0.125	0.056	0.176	2.256	0.025
Intellect/Imagination	0.084	0.070	0.100	1.209	0.228
R: 0.254		R ² : 0.064	F: 2.840	p: 0.026	

In the regression model in Table 19, "WTC in the informal digital context" was included as the dependent variable, and the "extraversion", "agreeableness", "neuroticism" and "intellect/imagination" dimensions were included as independent variables. When the findings related to the regression model were examined, it was found that the model was significant ($F=2.840$; $p=0.026$). The "extraversion", "agreeableness", "neuroticism" and "intellect/imagination" dimensions explained 6,4% of the total variance of "WTC in the informal digital context". According to the findings, the dimensions of "extraversion", "agreeableness" and "intellect/imagination" do not have a significant effect on "WTC in the

informal digital context" ($p > 0.05$), but the "neuroticism" dimension has a significant effect ($\beta = 0.176$; $p = 0.025$) on "WTC in the informal digital context".

Research question 3. Are there significant relationships between students' gender, age, having travelled to an English-speaking country, personality, and their WTC in the English class and in the informal digital context?

Table 20 *Descriptive Features of the Participants*

Descriptive Features		n	%
Have you traveled or lived in an English-speaking country?	Yes	20	11.8
	No	150	88.2
Countries* * (The number by country for people who answered "yes" to the question "Have you traveled or lived in an English-speaking country?" is higher than 20 due to multiple answer option)	England	4	10.3
	Wales	2	5.1
	America	2	5.1
	Holland	2	5.1
	Spain	2	5.1
	Poland	2	5.1
	France	2	5.1
	Belgium	1	2.6
	Germany	5	12.8
	Ukraine	1	2.6
	Lithuania	2	5.1
	Latvia	1	2.6
	Italy	4	10.3
	Greece	1	2.6
	The United Arab Emirates	1	2.6
	Croatia	2	5.1
	South Cyprus	1	2.6

	Australia	1	2.6
	Bulgaria	1	2.6
	Serbia	1	2.6
	Czechia	1	2.6
How long is your stay in these country / countries?	Less than 1 month	10	5.9
	1 to 5 months	9	5.3
	More than 6 months	3	1.8
Do you enjoy studying English in the classroom?	Not at all	7	4.1
	Somewhat	25	14.7
	Neutral	37	21.8
	Yes	75	44.1
	Very much	26	15.3
Do you enjoy studying English/taking additional English classes outside of school?	Not at all	5	2.9
	Somewhat	10	5.9
	Neutral	28	16.5
	Yes	90	52.9
	Very much	37	21.8
Do you enjoy studying English when you engage in social media? (e.g., online games, WhatsApp, Facebook)	Not at all	3	1.8
	Somewhat	4	2.4
	Neutral	12	7.1
	Yes	85	50.0
	Very much	66	38.8
How many hours do you spend each week on studying English? (Do not include actual class time in any English class)	Less than 2 hours	115	67.6
	2 to 4 hours	25	14.7
	4 to 6 hours	16	9.4
	6 to 8 hours	5	2.9
	More than 8 hours	9	5.3

Other than in your English class, do you have opportunities to use English to interact with others?	Yes	93	54.7
	No	77	45.3
How often do you play online games?	Rarely (Once a week)	72	42.4
	Sometimes (2 or 3 times per week)	36	21.2
	Fairly often (Once a day)	27	15.9
	Very often (Many times per day)	35	20.6
How often do you use social media? (e.g., WhatsApp, Facebook, Twitter, Instagram, E-mail)	Sometimes (2 or 3 times per week)	7	4.1
	Fairly often (Once a day)	25	14.7
	Very often (Many times per day)	138	81.2
How would you rate your speaking proficiency in English?	Least Proficient	10	5.9
	Less Proficient	23	13.5
	Somewhat Proficient	67	39.4
	Proficient	53	31.2
(M: 3,25±1,01)	Quite Proficient	17	10.0
How would you rate your listening proficiency in English?	Least Proficient	4	2.4
	Less Proficient	31	18.2
	Somewhat Proficient	43	25.3
	Proficient	71	41.8
(M: 3,43±1,00)	Quite Proficient	21	12.4
How would you rate your writing proficiency in English?	Least Proficient	4	2.4
	Less Proficient	35	20.6
	Somewhat Proficient	62	36.5

	Proficient	51	30.0
(M: 3,25±0,98)	Quite Proficient	18	10.6
How would you rate your reading proficiency in English?	Least Proficient	2	1.2
	Less Proficient	18	10.6
	Somewhat Proficient	47	27.6
	Proficient	71	41.8
	Quite Proficient	32	18.8
(M: 3,66±0,94)			
English Proficiency Level M: 4,40±0,84			
How long (in years) have you studied English? M: 9,01±3,87			

150 (88.2%) students have not traveled to or lived in an English-speaking country, 5 (12.8%) have been in Germany, 10 (5.9%) students stayed in the country where they went for less than one month, 75 (44.1%) are undecided about whether learning English in the classroom is fun, 90 (52.9%) like to attend English lessons/learn English outside of school, 85 (50.00%) like to learn English on social media or through games, 115 (67.6%) spend less than two hours each week on studying English. 93 (54.7%) participants have the opportunity to communicate with others in English outside of English lessons or English-speaking lessons, 72 (42.4%) rarely play online games (once a week), 138 (81.2%) use social media quite a lot (e.g., Facebook, Instagram, Twitter, WhatsApp, e-mail). 67 (39.4%) participants' proficiency level in English speaking area is partly enough, 71 (41.8%) participants' level of proficiency in listening to English is sufficient, 62 (36.5%) participants' proficiency level in English writing is partially sufficient, and 71 (41.8%) participants' level of proficiency in English reading is sufficient. The average level of English proficiency is 4.40 (± 0.84). The average of the years spent studying English is 9.01 (± 3.87).

Table 21 *Findings by Gender of the Participants*

	Gender	N	Mean	Std	t	p
Willingness to Communicate in the Classroom	Male	104	3.35	0.89	0.856	0.393
	Female	66	3.24	0.68		
Willingness to Communicate in the Informal Digital Context	Male	104	3.79	0.68	1.945	0.053
	Female	66	3.59	0.61		
Extraversion	Male	104	3.43	0.88	-0.129	0.898
	Female	66	3.45	0.75		
Agreeableness	Male	104	3.65	0.76	-1.537	0.126
	Female	66	3.84	0.77		
Neuroticism	Male	104	3.15	0.96	-2.900	0.004
	Female	66	3.56	0.81		
Intellect/Imagination	Male	104	3.99	0.80	0.933	0.352
	Female	66	3.87	0.75		

The analysis findings of the t-test conducted to determine whether there is a difference in the research scales according to the gender of the participants are presented in Table 19. According to these findings, there is no significant difference between students' gender and their WTC in the classroom and informal digital context. Nevertheless, a statistically significant difference is found in the "Neuroticism" subscale according to the gender of the participants ($p < 0.05$). When the analysis findings are examined, it is seen that the average of the "women"

group ($M: 3.56 \pm 0.81$) in the "Neuroticism" scale is higher than the average of the "male" group ($M: 3.15 \pm 0.96$).

Table 22 *Findings by Age Groups of the Participants*

	Age	N	Mean	Std	f	p	Significant Difference
Willingness to Communicate in the Classroom	17-19 ¹	46	3.33	0.68	0.190	0.903	
	20-22 ²	74	3.26	0.88			
	23-25 ³	40	3.38	0.84			
	Above 25 ⁴	10	3.26	0.91			
Willingness to Communicate in the Informal Digital Context	17-19 ¹	46	3.81	0.55	0.724	0.539	
	20-22 ²	74	3.65	0.69			
	23-25 ³	40	3.76	0.69			
	Above 25 ⁴	10	3.57	0.76			
Extraversion	17-19 ¹	46	3.25	0.94	1.874	0.136	
	20-22 ²	74	3.42	0.69			
	23-25 ³	40	3.64	0.89			
	Above 25 ⁴	10	3.67	0.89			
Agreeableness	17-19 ¹	46	3.84	0.74	4.643	0.004	2<1
	20-22 ²	74	3.49	0.78			2<3
	23-25 ³	40	3.97	0.62			
	Above 25 ⁴	10	3.96	0.96			
Neuroticism	17-19 ¹	46	3.64	0.91	4.670	0004	3<1
	20-22 ²	74	3.35	0.89			3<2
	23-25 ³	40	2.95	0.89			4<1
	Above 25 ⁴	10	3.00	0.84			

Intellect/Imagination	17-19 ¹	46	4.02	0.74	2.145	0.097
	20-22 ²	74	3.78	0.82		
	23-25 ³	40	4.10	0.76		
	Above 25 ⁴	10	4.20	0.54		

Analysis results of the ANOVA test conducted to determine whether there is a difference in the research scales according to the participants' age groups are presented in Table 22. According to the findings, there is no significant difference between students' age and their WTC in the classroom and informal digital context. However, a statistically significant difference is found in the "Agreeableness" sub-dimension and the "Neuroticism" sub-dimension according to the age groups of the participants ($p < 0.05$). As a result of the multiple comparison tests conducted to determine between which groups there is a difference:

- ✓ In the "Agreeableness" dimension, the average of the participants in the "17-19" age group ($M: 3.84 \pm 0.74$) and the "23-25" age group ($M: 3.97 \pm 0.62$) is higher than the average of the participants in the "20-22" age group ($M: 3.49 \pm 0.78$),
- ✓ In the "Neuroticism" dimension, the average of the participants in the "17-19" age group ($M: 3.64 \pm 0.91$) and the "20-22" age group ($M: 3.35 \pm 0.89$) is higher than the average of the participants in the "23-25" age group ($M: 2.95 \pm 0.89$) and, the average of the participants in the "17-19" age group ($M: 3.64 \pm 0.91$) is higher than the average of the participants in the "above 25" age group ($M: 4.20 \pm 0.54$).

Table 23 *Findings According to Participants' Traveling to or Living in an English-Speaking Country*

	Traveling to or Living in an English-Speaking Country	N	Mean	Std	t	p
Willingness to Communicate in the Classroom	Yes	20	3.70	0.9	2.291	0.023
	No	150	3.25	0.81		
Willingness to Communicate in the Informal Digital Context	Yes	20	3.88	0.64	1.187	0.237
	No	150	3.69	0.66		
Extraversion	Yes	20	3.76	0.93	1.822	0.070
	No	150	3.40	0.81		
Agreeableness	Yes	20	3.96	0.58	1.465	0.145
	No	150	3.69	0.79		
Neuroticism	Yes	20	2.85	0.82	-2.419	0.017
	No	150	3.37	0.92		
Intellect/Imagination	Yes	20	4.15	0.51	1.722	0.094
	No	150	3.92	0.80		

The analysis findings of the t-test conducted to determine whether there is a relationship in the research scales according to the participants' traveling to an English-speaking country or living in such a country are presented in Table 23. The findings show a statistically significant relationship between students' WTC in the classroom and whether they have travelled to or are living in an English-speaking country ($p < 0.05$). It can be seen that the average of the "yes"

group (M: 3.70 ± 0.79) in the scale of WTC in the classroom was higher than the average of the "no" group (M: 3.25 ± 0.81).

Research question 4. Is there a significant relationship between online game playing, social media usage, perceived proficiency levels of students and WTC in English in the classroom and informal digital context?

The correlation analysis findings of the Pearson tests, which were made to determine the relationship between how often the participants play online games, how often they use social media, their English proficiency levels, and WTC in the classroom and informal digital context are presented in Table 24.

Table 24 *Correlation Analysis Findings by Online Game Play, Social Media Usage and English Proficiency Level*

	Willingness to Communicate in the Classroom	Willingness to Communicate in the Informal Digital Context
How often do you play online games?	-0.046	0.097
How often do you use social media? (e.g., Facebook, Instagram, Twitter, WhatsApp, e- mail)	-0.102	-0.039
English Proficiency Level	0.473*	0.409*

* $p < 0.01$

According to Table 24, there is no significant relationship between how often the participants play online games and how often they use social media, and their WTC in the classroom and informal digital context ($p > 0.05$). However, it was determined that there is a

significant positive ($p < 0.05$) relationship between the participants' English proficiency level and their WTC in the classroom and informal digital context.

This chapter has presented qualitative and quantitative results of the analysis. The results indicate the complex relationship between the WTC construct and other factors. The next chapter will discuss the findings in light of the literature.

CHAPTER 5

Discussion and Conclusion

Discussion

The aim of this study was to see the willingness of university engineering students to communicate in English in the classroom and in the informal digital context as well as the reasons for any differences between them. The effects of personality traits, which play a key role in the progress of learning, on communicating in English both in the classroom and informal digital context were also investigated. Since personality traits are determinants in individuals' motivation, self-confidence, and stress levels, the study also examined these three sub-branches. Moreover, given that factors such as age, gender, the experience of having been abroad, frequency of online gameplay, and perceived communication skill level may also affect students' motivation, self-confidence and anxiety, and their WTC, these were also included in the study.

Quantitative data was gathered through three different questionnaires (WTC in the classroom, WTC in the informal digital context, and Big-Five Personality traits). Subsequently an interview was conducted with 20 university students to understand the reasons for any differences between WTC in the classroom and in the informal digital context. The quantitative data collected was analyzed using SPSS 24 and AMOS 24 programs, and this data was analyzed through content analysis.

The results show that the students' WTC levels are moderately high in English, both in the classroom and in the informal digital context. In this respect, this study parallels with Şener's study (2014), which was conducted on WTC in the classroom with 274 EFL students. Altınar (2018) also conducted a survey on WTC with 711 Turkish EFL students and revealed that the students were willing to a certain extent. The results also show similarities with the study Hişmanoğlu and Özüdoğru (2017) conducted in Turkey with 328 students. They also examined

the students' WTC in the EFL context and affective factors on students' WTC levels and found that students were moderately willing to communicate. However, it was determined that the students' levels of WTC in the informal digital context (M: 3.72) is higher than their level of WTC in the classroom (M: 3.30), although the results show that students are willing to communicate in both contexts. At the same time, 44.1% of respondents are undecided about whether learning English in the classroom is fun. In comparison, 52.9% think learning English online is fun, and 50% of the participants expressed that they would like to learn English through social media or online games. Accordingly, it is inferred that social media and online game activities increase students' WTC in English. The results support JS Lee and Draji's study (2019) with 183 EFL students. They researched the impact of both receptive and productive IDLE activities on students' WTC with Indonesian students. They found a significant positive link between these activities and students' WTC in the target language. Another study which was carried out by Freiermuth and Jarrell (2006), achieved the same results. The study focused on the WTC in English of Japanese EFL students in the online chat and face-to-face contexts. According to the results, the students were more willing to communicate through online chatting. Furthermore, JS Lee and Hsieh (2019) performed research with 261 Taiwanese students in the EFL context. They considered three different contexts: in the classroom, out of the classroom, and the digital context. The results indicated that students are more willing to communicate in digital and out-of-the-classroom contexts. Similarly, the majority of the participants (52.9%) of the current study tend to attend English lessons/learn English outside of school, and half of them (50.00%) like to learn English on social media or through games.

The findings reveal that the extraversion, intellect/imagination, and agreeableness traits are found positively related in terms of the relationship between the Big-Five personality traits and WTC. Also, a negative relationship was found between extraversion and neuroticism traits.

According to the results, students with extraversion and intellect/imagination personality traits are more willing to communicate both in the classroom and in the informal digital context ($p < 0.05$). In terms of WTC in the classroom, the agreeableness trait is found as another factor that positively affects learners' WTC. However, although the extraversion, intellect/imagination, and agreeableness traits all positively affect WTC in the classroom, only the extraversion trait emerged as a strong indicator of WTC. On the same theme, Çetinkaya (2005) conducted a study focusing on Turkish university students' WTC and influential factors. Three hundred and fifty-six students took part in the study and filled in twelve different questionnaires. The results indicate that extravert students, who are known to be social and talkative, are more willing to communicate than others. Öz (2014) also saw similar results in his study with 168 university students in the Turkish EFL context. Extraversion and intellect/imagination are found to be significant predictors of WTC. Likewise, Fatima, Ismail, Pathan, and Memon (2020) studied 234 EFL university students (126 males and 108 females) and focused on the effects of personality traits and influential variables on learners' WTC. The results indicated that intellect/imagination (openness to experience) and extraversion positively influence the learners' WTC in the classroom. Nevertheless, the results contrast with the study carried out by Lin (2019) with 701 Taiwanese EFL students. The study examined WTC, its variables (intercultural posture, communication competence), and the Big-Five personality traits. According to the results, extraversion does not affect the intercultural posture of the students; that is, it is not directly related to the students' WTC. Similar to these results, Zhang, N Beckmann, and JF Beckmann (2020) investigated the relationships between WTC and individual differences with 103 EFL university students and found that extraversion is not a strong predictor for learners' WTC in L2.

Considering WTC in the informal digital context, neuroticism is a prominent trait that positively impacts their WTC in the informal digital context ($p < 0.05$). Alongside this, even

though extraversion and intellect/imagination traits positively affect WTC in the informal digital context, only neuroticism is found to be an immediate predictor of WTC in the informal digital context. Similar to these findings, Kartal and Balçıkanlı (2018) carried out a study with the participation of 65 university students. The study concentrated on the students' WTC, their anxiety levels, and the cyber world. Thirty students took part in the experimental group, whereas thirty-five students took part in the control group. Kartal and Balçıkanlı gave the students ten tasks to complete each week and observed the students' communication levels in the classroom and virtual world. The results obtained showed that the students in the virtual world felt less anxiety and were more willing to communicate compared to the classroom control group. In addition, Adelifar *et al.* (2016) implemented a study with 120 EFL university students in Iran and found that neuroticism positively affects the students' WTC. Likewise, Mehroof and Griffiths (2010) carried out a study on personality traits, including neuroticism, anxiety, offensiveness, and online game addiction. One hundred and twenty-three university students in the UK took part in this study. According to the results, all of the studied traits (e.g., anxiety, neuroticism) positively affect online game addiction. It has also been suggested that this result is because neurotic people may suppress their negative emotions by playing online games and feeling more relaxed. JS Lee and K Lee (2019) also found that learners are more anxious about speaking English in the classroom than in digital environments in their study with 176 Korean EFL students. Moreover, Zeng, Young, Brewer, and Wagner's study (2009) also showed that playing online games decreases language learners' anxiety levels and increases their confidence. Additionally, Peterson (2010a; 2010b) concluded that language learners are less stressed and more motivated to communicate through online games. As supported by these studies, it is seen that the students in the current research are also more stress-free in the informal digital context. Most of the students in the interview, who stated that their anxiety levels were very high when talking in English in the classroom and that they were hesitant to

speak, stated that they felt more comfortable when communicating in the informal digital context because of features such as flexibility, and they did not hold back from communicating. It shows that the negative aspects of individuals' neurotic personality decrease while they engage in conversation through social media and online games. On the other hand, the classroom atmosphere, as a formal setting, causes students with some specific personality traits to be more in the background while communicating, while others are more prominent. In parallel with this inference, Weber (2020) carried out a study with 570 students and found that intellect/imaginative and extravert students are more likely to communicate unhesitantly in the classroom. Dewaele and Furnham (200) also reached the similar results with 25 university students. Their findings show that while extravert people can communicate at ease thanks to their positive personality traits even under stress, the others (introverts) are hesitant when communicating as they constantly try to observe themselves under stress in the classroom. Therefore, it can be said that since social, talkative, less stressed, and innovative people (intellect/imagination and extraversion personality traits) do not usually have difficulty in communicating in the classroom environment, neurotic people may be more inclined to communicate in the digital context as a result of the communication gap that occurs in the classroom environment. As JS Lee and Hsieh (2018) provided in their study, the digital context may support the learners socially and psychologically, preventing neuroticism from becoming a negative factor in the informal digital context.

Nevertheless, although all the models are significant ($p < 0.05$), the Big-Five personality traits explained WTC in the classroom and the informal digital context at a certain level. This result shows that other factors may affect WTC in English in the classroom and the informal digital context. However, the explanation percentages are significant at any rate, as all models are significant.

According to the analysis of the quantitative, no significant difference is found between the students' WTC in English in the classroom and informal digital context and their gender. Similarly, Zerey and Cephe (2020) carried out a study on WTC in the Turkish EFL context with 296 preparatory class students, and they focused on the relationship between WTC and gender. The results indicated a slight difference between genders, but no significant difference was found. In the same way, Öz (2014) carried out a study with 278 university students and obtained no significant difference between gender and WTC in English in the Turkish context. The study results are in the same vein as Donovan and MacIntyre's study (2004), which was conducted with students from junior high, high school, and university. According to their research, while there is a discrepancy between junior high students, there is no significant difference between female and male university students. However, this finding is contrary to Maftoon and Sarem's study (2013), which precipitates that the levels of WTC of female students are higher than those of the male students. Another study that contradicts the current findings was conducted by Altiner (2018), in which women were found more eager to communicate.

The current study's findings also indicate no significant difference between age and WTC in the classroom and informal digital context. Some previous studies also support these findings (Alemi, Tajettin & Mesbah, 2013; Aliakbari & Mahjoob, 2016; Hişmanoğlu & Özüdoğru, 2017). In a study with 328 university students, Hişmanoğlu concluded that the age group has no significant impact on learners' WTC. Nevertheless, this finding is in contrast to the results of Donovan and MacIntyre's study (2004), which was carried out with three different groups - junior high, high school, and university students. The study revealed that university-level students are more willing to communicate than the other levels.

Although the students are more willing to communicate in English in the informal digital context, no significant correlation was found between students' WTC and the frequency of using social media or playing online games. According to the results of this study, 72 (42.4%) students

rarely play online games (once a week), and 138 (81.2%) of them use social media quite a lot (e.g., Facebook, Instagram, Twitter, WhatsApp, e-mail). Nevertheless, 93 (54.7%) participants stated that they can communicate with others in English outside of English lessons or English-speaking lessons. Almost all of the students interviewed also stated that this opportunity is granted through online games and social media, which increase the frequency of L2 use. However, previous studies revealed that L2 use frequency has significant effects on WTC. Ghani and Azhar (2017) performed an analysis with 123 university students studying for a master's degree in English. They focused on the students' WTC, motivation, anxiety, and L2 use frequency.

The results pointed towards a strong correlation between motivation, WTC, and L2 use frequency, and a negative relation between anxiety, WTC, and L2 use frequency. Hashimoto (2002) also studied WTC and affective variables in the classrooms and found that perceived communication competence, anxiety, and L2 use were predictors of WTC. The study showed that a higher level of WTC increases the frequency of L2 use. The students in the current study also thought that playing online games and using social media were related to the frequency of L2 use. They found that playing an online game and using social media are helpful for English speaking practice. Nevertheless, they are still not seen as strong indicators for WTC in the classroom and the informal digital context.

As a result of the qualitative content analysis, various factors have emerged that affect the learners' willingness in the classroom and informal digital context. Six primary factors influence the students' WTC in the classroom: effective factors (fear of making mistakes, fear of being evaluated, lack of self-confidence, fear of criticism interlocutor, and L2 communication anxiety); classroom atmosphere (teacher behavior and group size); proficiency in English (lack of communication practice, vocabulary and grammar knowledge); the familiarity with the topic, and the interlocutor; and experience of being abroad. Alongside this,

three major factors affect the learners' WTC in the informal digital context: communication style (face-to-face/written, peer-to-peer communication); interlocutor (interlocutor familiarity, native/non-native interlocutor, Turkish/foreign interlocutor, proficiency level of interlocutor); and environmental factor. The main categories and sub-categories are all interrelated.

First of all, the students stated that if the class is too crowded or has many people they do not know, they hesitate to talk. This finding is in line with Başöz and Erten's study (2019), which found that the more students in the class, the less the students are willing to talk. The students in the current study are also more inclined to speak if there are fewer students in the classroom or when they communicate with a group where the other students are their friends. In addition, they said that the teacher's presence in the classroom or the teacher having a very formal personality also negatively affected their willingness. This demonstrates that students are more eager to communicate in environments where they feel comfortable. Students thought that they should be able to speak English correctly in terms of grammar and pronunciation, especially when there are people they do not know in the classroom or when the teacher is also in the classroom. The main reason for this is the fear of making mistakes and being criticized by the class. When students produce incorrect sentences, cannot remember appropriate vocabularies or mispronounce the words, they are disturbed by other students laughing at them, causing them to panic and consequently make more mistakes. Baran-Łucarz (2014) also obtained results showing that pronunciation anxiety and fear of making mistakes negatively affect learners' WTC. For this reason, EFL learners often think that speaking English in the classroom is stressful. However, while most students are uncomfortable with being ridiculed, some students stated that they do not care what others think and are not affected by how crowded the class is. It is interesting that these students are those who have been abroad before and who have a high perceived level of communication and self-confidence.

Another reason which decreases the learners' willingness level is fear of being evaluated by the teacher. As McIntyre and associates (1998) stated, the learners' WTC level decreases if they are aware that there is a formal evaluation. Previous research also supports that teachers' attitudes in EFL classrooms are essential for the promotion of communication (Başöz & Erten, 2019; Cao, 2009; Ghonsooly, Fatemi & Khajavy, 2013; Peng, 2007). This study is also supported by Hsu and Huang's research (2017) which concluded that when students establish intimacy with their classmates and teachers in the classroom, the classroom becomes a more stress-free environment, and the anxiety level decreases, so the learners tend to be more willing to speak. In addition to these, due to limited input in the classroom, students feel insecure about communicating in English and develop a fear of communicating in a foreign language (L2 communication anxiety).

Topic familiarity is another factor that significantly affects WTC in the classroom. The students reported that they avoid talking about subjects they do not know much about. Also, they emphasized that if the subject is familiar, they will have less difficulty choosing their words and will have more to say. Kang (2005) likewise stressed that if the students do not have sufficient knowledge about a subject, they feel concerned and avoid speaking about it. The familiarity of the subject increases the rate of perceived competence level and the students' self-confidence (Cao & Philp, 2006). Similarly, Zhang, N Beckmann, and JF Beckmann (2018) conducted a study with university students and concluded that if they are familiar with the subjects, they feel more secure and more willing to communicate.

The results also indicate a significant link between traveling abroad and students' WTC in the classroom ($p < 0.05$). It was induced that the students who have been abroad before have a higher level of willingness to communicate in English in the classroom. Twenty out of 170 students have been abroad before, and their common opinion is that their experience abroad increases their confidence in speaking English. They stated that they had felt uncomfortable

and tense communicating in English in the classroom before going abroad but were more confident communicating after they returned. The students are aware that speaking practice has an essential place in gaining self-confidence. Among the interviewed students, those who have not been abroad before believed that even if they went abroad for a few days, it would give them more self-confidence. They thought that their current lack of self-confidence is their inability to practice speaking English in Turkey, especially in the classrooms. They stated that they could practice speaking sufficiently abroad and gain communication confidence. Studies that were applied on WTC and experience abroad also support these findings. Kang (2014) conducted a survey on WTC and study abroad with 60 Korean EFL students and achieved similar results. The participants had been in an English-speaking country for eight weeks and had improved their speaking skills in the classroom, which greatly affected their WTC. Similarly, Grant (2020) performed a study to determine the relationship between WTC and immersion programs or study abroad. One hundred and fifty university students with a proficiency level below A2 participated in this study. The results show that the students' perceived communication competence and motivation improved during the immersion program, and their WTC level increased. Another study by Dewaele, Comanaru, and Faraco (2015) also supports the current study's findings. Ninety-three learners of French as an FL participated in their research, and the results show that experience abroad decreases the anxiety level of the students and increases their WTC level. Lastly, Fidan and Karatepe (2021) conducted a study with 100 EFL students to evaluate their language learning process during their experience abroad. The results of the study prove that the students increase their communicative skills during their stay abroad, develop more positive attitudes towards the foreign language and its members, and become more willing to communicate.

Alongside this, a significant positive relation is found between perceived proficiency level and students' WTC in the classroom and the informal digital context. The results show

that students with high proficiency levels are more willing to communicate, both in the classroom and in the informal digital context. Quantitative data analysis shows that 67 (39.4%) participants consider themselves partly enough in English speaking area, 71 (41.8%) participants consider their level of proficiency in listening to English is sufficient, 62 (36.5%) participants consider their proficiency level in English writing is partially sufficient, and 71 (41.8%) participants consider their level of proficiency in English reading is sufficient. Additionally, the average level of English proficiency is found as 4.40 (± 0.84). Almost half of the students (n: 7) who took part in the interview stated that their lack of English proficiency levels causes them to panic and decreases their motivation when speaking English. Communication, vocabulary, and grammar deficiencies are seen as the most critical obstacles in proficiency level. However, only 55 (32.3%) students study English for more than two hours a week. The students expressed that they are more stressed and reluctant to communicate when they think that their peers' proficiency levels are higher than theirs while in the classroom, and when they believe that the interlocutor's level of competence is higher in the informal digital context. These findings support Altınar's (2018) study, which was carried out in Turkey with 711 EFL university students. She conducted the study on learners' WTC and its variables (gender, proficiency level). The results revealed that highly proficient students are more willing to communicate in English compared to others. Another study was carried out by Yashima *et al.* (2004) on WTC, L2 communication, and proficiency level. The present study also pointed out to the same results. Namely, Öz *et al.* (2015) conducted research in the Turkish EFL context with the participation of 134 students. They tried to identify relationships between learners' WTC and influencing factors. According to the findings, almost 14% of students had high perceived communication competence, and those students also had a higher level of WTC.

In connection with this, another factor affecting the WTC of the students in the informal digital context is whether the person being addressed is a native or a non-native speaker of

English. Some of the students expressed that they feel less competent when talking with native speakers of English, thinking that their mistakes are more prominent. For this reason, they opined that they can communicate more easily with non-native speakers of English because their level of proficiency is similar. However, the participants of this study specified that they would like to contact mostly with native speakers of English through social media and online games. On the other hand, some students also stated that while communicating in English in the informal digital environment, they can learn more from those with a higher level of proficiency because they do not feel pressured (cf. Pozega, 2010; Sak, 2020; Satar & Özdener, 2008).

Another determinant for WTC in the informal digital context is interlocutor familiarity. The results indicated that while the EFL students are more willing to communicate with people they are familiar with, or with a group of friends in the classroom environment, they want to communicate with people they do not know in the informal digital environment. Most of the students in the study stated that the reason for this is that they feel embarrassed about people knowing them when they make mistakes. Still, there is almost no possibility of meeting with the interlocutors they are talking to later. Along the same lines, Başöz and Erten (2019) achieved the same results in the Turkish EFL context.

It is also important for the EFL students' WTC in the informal digital context whether the interlocutor they are communicating with is Turkish or foreign. Students emphasized that they do not want to interact with Turks, even when they communicate in English in written form in the digital context (especially in online games). The students added that Turks are not very tolerant of making mistakes in a foreign language and may make fun of them when this happens. At the same time, they thought that foreigners are not as critical as Turks, and those who try to correct the errors do so to teach the correct version, not to ridicule. This finding is also parallel with the results of Başöz and Erten (2019).

One of the advantages of the informal digital context for the participants in the study is to be able to communicate in a familiar environment they know precisely (e.g., their home). Two students mentioned that they feel more comfortable in familiar environments, which reduces their stress level and increases their WTC level. Students also noted that they are much more eager to communicate in a commonplace, as they are far removed from the formal and judgmental atmosphere of the classroom environment. This proves that the students' willingness levels increase in environments where they feel comfortable.

The main reason why the students in this study are more eager to communicate in the digital environment than in the classroom is connected to the channel they communicate. More than half of the students (n: 13) expressed that they prefer written communication rather than face-to-face communication. It is inferred from the interview that in face-to-face communication, the lack of time to think and sources of help affects students' preference for written communication. The students mentioned that they have time to think in written communication. Even if they cannot immediately find the right words to use, they can receive support from the internet or the people around them to communicate much more comfortably. It can be said that the underlying reasons are lack of self-confidence, perceived communication competence level, fear of making mistakes, and being criticized. The students thought there was almost no risk of making mistakes and being criticized in the informal digital context, especially in written communication. In the same vein, Satar and Özdener's study (2008) was carried out with 90 EFL students focusing on computer-based communication. Three study groups considered were: verbal communication(chat), oral communication, and control, were. According to the results, the students in both the verbal and oral communication groups increased their speaking skills. Yet, it was observed that only the verbal communication group had a lower level of L2 anxiety. However, the students in the current study also emphasized that communicating in the digital environment is much more stress-free and comfortable than

communicating in the classroom and added that they would prefer to communicate orally in the digital domain rather than face-to-face in the classroom. Yanguas and Flores (2014) found similar results which support that the EFL learners' WTC level was higher in oral communication in computer-based communication than in face-to-face communication. In addition, being in contact with one interlocutor rather than speaking to a group also positively affects learners' WTC in English. Speaking English in front of a large group, which is one of the issues most avoided when communicating in the classroom, continues to be effective in the informal digital context. Therefore, it is obvious that students are more comfortable and more enthusiastic when communicating in English in peer-to-peer communication.

Conclusion

The process of learning a foreign language is a multifaceted period with various determinants. As the consensus that the core purpose of language learning is to communicate has increased, the factors affecting communication in English have begun to be explored. Willingness to communicate in English has emerged at this stage and has become an essential focus in foreign language education. All studies conducted so far have shown that the level of WTC in English is influenced by different factors in different contexts, with varying groups of people. As a result of this study carried out with 170 EFL university students, various factors were found to be involved in WTC in English in both the classroom and in the informal digital context, taking into account personality traits.

The quantitative research results indicated that the students have moderately high levels of WTC in both the classroom and informal digital context. However, it is observed that students are more enthusiastic in communicating in English in the informal digital context than in the classroom environment. The qualitative research results point to six main factors affecting WTC in the classroom, these factors being: affective factors (fear of making mistakes, fear of being evaluated, lack of self-confidence, fear of criticism, L2 communication anxiety),

interlocutor (interlocutor familiarity), classroom atmosphere (teacher, group size), proficiency in English (communication practice, vocabulary knowledge, grammar knowledge), topic (topic familiarity), and experience of being abroad. The presence of a teacher in the classroom, which creates a more formal environment, and the fear of being evaluated, the fear of making mistakes while communicating and being ridiculed by others in the classroom, the lack of self-confidence, and anxiety about speaking a foreign language all negatively affect EFL learners' WTC. In addition, limited exposure to English in EFL classes and the inability to practice speaking adequately, together with the lack of vocabulary and grammar knowledge, are crucial factors that reduce students' WTC. Nevertheless, the familiarity of the learner with the interlocutor/interlocutors and the subject being discussed are elements that increase WTC in the classroom. Another critical determinant of in-class WTC is experience of being abroad because most of the students believed that it increases their self-confidence in communication.

Alongside this, the findings revealed three main factors that affect WTC in the informal digital context: communication style (face to face/written communication, peer-to-peer communication), interlocutor (interlocutor familiarity, native/non-native interlocutor, foreign/Turkish interlocutor, proficiency level of interlocutor), and environmental factor (familiarity with the environment). The research findings showed that the participants are more willing to communicate in written communication than in face-to-face communication. Obviously, the flexible environment (e.g., creating time for thinking, providing the opportunity to receive help) offered by written communication reduces the learners' L2 anxiety and increases their WTC. Still, the EFL learners stated that even when communicating orally in the digital context (e.g., video chats, voice recordings), they are happier and more willing to communicate than in the classroom environment. In addition, the students stated that they are more comfortable communicating with a single person rather than speaking to a group of people. Unlike communicating in the classroom, the students want to interact with foreigners,

not with acquaintances or Turkish people, when communicating in the informal digital environment. The reason for this is the worry that Turks are more prone to criticize and ridicule. In addition, the learners stated that they were more self-confident and stress-free when speaking with non-native English speakers since their level of communication competence was similar. Although the students thought that native speakers would notice their mistakes, they were also aware that they could learn more from natives and were more willing to communicate with them. Lastly, the students feel more confident and unconcerned in familiar environments (e.g., home), a factor which increases their WTC level.

Considering the Big-Five personality traits, the extraversion, intellect/imagination, and agreeableness traits have a significant positive effect on WTC in the classroom. However, only the extraversion trait emerged as a strong determinant of WTC in the classroom. The social, talkative, and friendly qualities of extravert people allow them to be self-confident and motivated people with low stress levels, making them much more willing to communicate in English in the classroom than other students. On the other hand, the extraversion, intellect/imagination, and neuroticism traits were positively related to WTC in the informal digital context. Nevertheless, only neuroticism is a strong determinant for WTC in the informal digital context. According to the results, it is shown that even students who are highly stressed while speaking English in the classroom environment are much more comfortable and confident in the informal digital environment. The reason why neurotic people are more willing to communicate in English in the informal digital context may be due to the flexible and relaxing nature of the digital environment, which almost eliminates L2 communication anxiety and gives neurotic people an opportunity to overcome their avoidance of communication in L2 in the classroom.

It is also found that the experience of being abroad has a significant effect on WTC in the classroom, and perceived proficiency level significantly affects WTC both in the classroom

and informal digital context. The students participating in the study stated that their experience abroad has given them self-confidence in communicating in English. Students with high self-esteem expressed that they do not hesitate to communicate in English both in the classroom and in the digital context, proving that they have a higher WTC level than others. Moreover, no significant correlation was found between age, gender, frequency of social media use and online gameplay, and WTC in English.

The results of the study have brought along some pedagogical implications. First of all, it has been observed that students are more willing to communicate in the informal digital context and personality traits are an important phenomenon in this regard. Therefore, foreign language teachers should consider personal differences and receive the necessary training to integrate various activities on digital platforms into the lessons. With these activities, it should be aimed to reduce the students' stress levels and encourage them to communicate in English. This requires better facilities for foreign language teaching. Technology enhanced self-access materials can be developed based on Web 2.0 tools (Civelek & Karatepe 2021; Uzun 2014). Teachers need further training to do this. Teacher education programmes should include more components to enable teacher trainees to assist learners to communicate with their peers. Thus, the students' willingness to communicate in English will increase with the support of teachers and informal digital learning activities used in the classroom.

Limitations of the Study and Suggestions for Further Studies

The main limitation of this study is the difficulty of reaching the participants due to the pandemic. For this reason, the questionnaires were sent to the participants online, and the pilot study could not be conducted due to the limited accessibility of the participants and the various characteristics that the participants must have (e.g., playing an online game, using social media, being an engineering student). Therefore, further studies may obtain more consistent results by

reconstructing or removing items with lower reliability by conducting a pilot study. In addition, although the survey reached students from many different universities in Turkey, it was carried out only with engineering students studying at the university, so the inferences in the study cover this homogeneous group. Other studies may also work with different groups and make the results more general. Finally, since the results show that the Big-Five personality traits explained a certain proportion of WTC in English in the classroom and informal digital context, further studies should examine different variables such as students' attitudes towards the foreign language, their socio-economic backgrounds, and at which academic level the mother tongue is used by them.

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Appendices

Appendix A (Questionnaires in English)

Appendix 1

Demographic Information Form

1. University: _____

2. Major: _____

3. Year at school: _____

4. Gender: ☐ Male ☐ Female

5. Age: _____

6. How long (in years) have you studied English? _____

7. Have you traveled or lived in an English-speaking country?

☐ Yes, if yes;

A. Which country/countries _____

B. Duration of stay (please list the duration of stay for each country, if more than one)

C. Does this experience help you learn English? If yes, please briefly explain the reason.

☐ No

8. Do you enjoy studying English? (Please rate from 1 to 5 for each item)

1 = Not at all 2 = Somewhat 3 = Neutral 4 = Yes 5 = Very much

A. In the class _____

B. Take additional English classes outside of school _____

C. When you engage in social media (e.g., online game, Facebook, Twitter, WhatsApp, e-mail etc.)

9. How many hours do you spend each week on studying English (Do not include actual class time in any English class)? (Please choose one)

A. Less than 2 hours _____

B. 2-4 hours _____

C. 4-6 hours _____

D. 6-8 hours _____

E. More than 8 hours _____

10. Other than in your English class, do you have opportunities to use English to interact with others?

☐ Yes If yes, please describe the situation:

☐ No

11. How often do you play online games?

A. Never B. Rarely (Once a week) C. Sometimes (2 or 3 times per a week)

D. Fairly often(Once a day) E. Very often (many times per day)

12. How often do you use social media (WhatsApp, Facebook, Twitter, Instagram, E-mail etc.)?

A. Never B. Rarely (Once a week) C. Sometimes (2 or 3 times per a week)

D. Fairly often(Once a day) E. Very often (many times per day)

13. How would you rate your English proficiency in the following areas? (Please choose one for each item)

1 = Least proficient 4 = Proficient 2 = Less proficient 5 = Native-like 3 = Somewhat proficient

_____ A. Speaking

_____ B. Listening

_____ C. Writing

_____ D. Reading

Appendix 2

WTC in the informal digital context

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I am willing to use greeting sentences in English when I start to conversation to other game players.					
2. I am willing to talk to other game players in English about a quest assignment.					
3. I am willing to talk to other game players about characters in English during the game.					
4. I am willing to read quest description/instructions in English before I start completing.					
5. I am willing to listen to what other game players say in English.					
6. I ask for clarification in English when I am confused about a task I must complete.					
7. I ask questions in English for comprehension check during the game.					
8. I am willing to request for help in English during the game.					
9. I am willing to talk about ideas and opinions in English during the game.					
10. I am willing to talk about other game players' personal details (name, age, country) in English.					
11. I am willing to communicate with other game players about politics of countries in English.					
12. I am willing to communicate with other game players about order of the day in English.					

13. I am willing chat with others in English via social media (e.g., Facebook, Twitter, WhatsApp, Line, WeChat).					
14. I am willing to send an email to others in English.					
15. I am willing to share English contents online.					
16. I am willing to follow foreign people or foreign groups/teams on social media.					
17. I am willing to use technology to connect with native speakers of English (e.g., American, British).					
18. I am willing to use technology to connect with non-native speakers of English all over the world (e.g., Japanese, Chinese).					
19. I am willing to comment on posts in English via social media.					
20. I am willing to give/write answers to others in English via social media.					

Appendix 3

WTC in the classroom

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I am willing to ask questions in English in the classes at the university.					
2. I am willing to talk and express my opinions in English in the class when all my classmates are listening to me.					
3. I am willing to make comments in English when I participate in a whole class discussion.					
4. I am willing to have pair and group activities in the class so that I can talk in English with my classmates.					
5. I am willing to explain task instructions to my friends in English.					
6. I am willing to talk to my classmates about my ideas and opinions in English during an assignment.					
7. I am willing to give a presentation in English in front of my classmates.					
8. In group work activities in the class when the group is composed of my friends, I am willing to speak in English.					
9. In group work activities in the class when the group is NOT composed of my friends, I am willing to speak in English.					
10. If I had a chance to take an optional English course, I would join it.					

Appendix 4

20-Item Mini-IPIP (Big-Five personality traits)

	Very inaccurate	Inaccurate	Neutral	Accurate	Very Accurate
1. I am the life of the party.					
2. I sympathize with others' feelings.					
3. I get chores done right away.					
4. I have frequent mood swings.					
5. I have a vivid imagination.					
6. I don't talk a lot.					
7. I am not interested in other people's problems.					
8. I often forget to put things back in their proper place.					
9. I am relaxed most of the time.					
10. I am not interested in abstract ideas.					
11. I talk to a lot of different people at crowded places.					
12. I feel others' emotions.					
13. I like order.					
14. I get upset easily.					
15. I have difficulty understanding abstract ideas.					
16. I keep in the background.					
17. I am not really interested in others.					
18. I make a mess of things.					
19. I seldom feel blue.					
20. I do not have a good imagination.					

Appendix B (Questionnaires in Turkish)

Appendix 1

Kişisel Bilgi Formu

1. Üniversiteniz: _____

2. Bölümünüz: _____

3. Sınıf düzeyiniz: _____

4. Cinsiyet: ☐ Kadın ☐ Erkek

5. Yaş: _____

6. Kaç yıldır İngilizce dersi alıyorsunuz? _____

7. Daha önce İngilizce konuşulan bir ülkeye seyahat ettiniz mi ya da böyle bir ülkede yaşadınız mı?

☐ Evet;

A. Hangi ülke ya da ülkeler _____

B. Ülkede kaldığınız süre (Eğer birden fazla ülkeyse her biri için ayrı süre belirtiniz)

C. Bu deneyim İngilizce öğrenmenize yardımcı oldu mu? Eğer evetse, sebebini kısaca açıklayınız. _____

☐ Hayır

8. İngilizce öğrenmeyi sever misiniz? (A-B-C seçeneklerinde verilen durumlar için aşağıda verilen sayılara göre derecelendiriniz)

(1 = Hiç sevmem 2 = Kısmen severim 3 = Kararsızım 4 = Severim 5 = Çok severim)

A. Sınıfta İngilizce öğrenmekten _____

B. Okul dışında başka bir yerlerde İngilizce dersine katılmaktan/öğrenmekten _____

C. Sosyal medya ya da oyunlar aracılığıyla İngilizce öğrenmekten (Online oyunlar, Facebook, Twitter, WhatsApp, e-mail vs.) _____

9. Her hafta İngilizce çalışmaya ne kadar zaman ayırıyorsunuz? (Okulda derste harcadığınız zamanı dahil etmeyiniz)

A. İki saatten az _____

B. 2-4 saat arası _____

C. 4-6 saat arası _____

D. 6-8 saat arası _____

E. 8 saatten fazla _____

10. İngilizce dersleriniz ya da İngilizce konuşulan dersleriniz hariç başkalarıyla İngilizce iletişim kurma imkânınız oluyor mu?

☐ Evet ise hangi durumlarda olduğunu açıklayınız.

☐ Hayır

11. Ne sıklıkla çevrimiçi oyun oynarsınız?

A. Hiç B. Nadiren (Haftada bir) C. Bazen (Haftada 2-3 kere)

D. Sıklıkla (Günde bir kez) E. Oldukça fazla (Gün içinde birçok kez)

12. Ne sıklıkla sosyal medya kullanırsınız (WhatsApp, Facebook, Twitter, Instagram, E-mail vb.)?

A. Hiç B. Nadiren (Haftada bir) C. Bazen (Haftada 2-3 kere)

D. Sıklıkla (Günde bir kez) E. Oldukça fazla (Gün içinde birçok kez)

13. Aşağıda verilen alanlardaki İngilizce yeterlilik seviyenizi derecelendirin. (Her bir alan için bir derece seçiniz)

1 = Çok az yeterli 2 = Az yeterli 3 = Kısmen yeterli 4 = Yeterli 5 = Oldukça yeterli

_____ A. Konuşma

_____ B. Dinleme

_____ C. Yazma

_____ D. Okuma

Appendix 2

İnformal dijital ortamda İngilizce iletişim kurmaya isteklilik ölçeği

	Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum
1. Diğer oyuncularla / sosyal medya kullanıcılarıyla konuşmaya başlarken İngilizce selamlama cümlelerini (Hi, how are you, What's up vs.) kullanmaya istekliyim.					
2. Diğer oyuncularla oyunda verilen görevlerle ilgili İngilizce iletişim kurmayı isterim.					
3. Diğer oyuncularla oyundaki karakterle ilgili İngilizce iletişim kurmayı isterim.					
4. Oyunda verilen görevlere başlamadan önce İngilizce açıklamaları ya da talimatları okumaya istekliyim.					
5. Diğer oyuncuların/ sosyal medya kullanıcılarının İngilizce olarak söylediklerini dinlemeye istekliyim.					
6. Tamamlamak zorunda olduğum görevler hakkında kafam karıştığında diğer oyuncularla İngilizce açıklama isterim.					
7. Oyun boyunca birbirimizi anlayıp anlamadığımızı kontrol etmek için İngilizce soru sorarım.					
8. Oyun boyunca diğer oyuncularla İngilizce olarak yardım isterim.					
9. Oyun boyunca diğer oyuncularla fikir ve düşüncelerim hakkında İngilizce iletişim kurmayı isterim.					
10. Diğer oyuncularla/ sosyal medya kullanıcılarıyla kişisel bilgilerimiz (isim, yaş, ülke vs.) hakkında İngilizce iletişim kurmayı isterim.					

11. Diğer oyuncularla/ sosyal medya kullanıcılarıyla ülke politikaları hakkında İngilizce iletişim kurmaya istekliyim.					
12. Diğer oyuncularla/ sosyal medya kullanıcılarıyla günlük rutinim hakkında İngilizce iletişim kurmayı isterim.					
13. Sosyal medyada diğer kullanıcılarla İngilizce sohbet etmeyi isterim. (Facebook, Twitter, WhatsApp, Line, WeChat vb.)					
14. İngilizce olarak başkalarına e-mail göndermeye istekliyim.					
15. Çevrimiçi olarak İngilizce içerik paylaşmayı isterim.					
16. Sosyal medyada yabancı insanları, grupları ya da takımları takip etmeye istekliyim.					
17. İngilizceyi anadili olarak kullanan insanlarla (Amerikan, İngiliz vs.) iletişim kurabilmek için teknolojiyi kullanmaya istekliyim.					
18. Dünya çapında İngilizceyi anadili olarak <u>kullanmayan</u> insanlarla (Japon, Çin vs.) iletişim kurabilmek için teknoloji kullanmaya istekliyim.					
19. Sosyal medyada gönderilere İngilizce yorum yapmayı isterim.					
20. Sosyal medyada diğer kullanıcılara İngilizce cevap vermeye/cevap yazmaya istekliyim.					

Apendix 3

Sınıf içinde İngilizce iletişim kurmaya isteklilik ölçeği

	Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum
1. Sınıfta İngilizce soru sormaya istekliyim.					
2. Bütün sınıf arkadaşlarım dinlerken İngilizce olarak düşüncelerimi ifade etmeye ve konuşmaya istekliyim.					
3. Sınıfça yapılan İngilizce bir tartışmada yorum yapmaya istekliyim.					
4. Sınıf arkadaşlarımla İngilizce konuşabilmek için ikili ya da grup çalışmalarında olmaya istekliyim.					
5. Sınıf arkadaşlarıma ödev ya da görev talimatlarını İngilizce olarak açıklamayı isterim.					
6. Verilen bir görev esnasında sınıf arkadaşlarımla fikir ve düşüncelerim ile ilgili İngilizce konuşmaya istekliyim.					
7. Sınıf arkadaşlarımla önünde İngilizce sunum yapmaya istekliyim.					
8. Sınıfta grup aktiviteleri yaparken, grup üyeleri arkadaşlarımdan oluştuğunda İngilizce konuşmaya istekliyim.					
9. Sınıfta grup aktiviteleri yaparken grup üyeleri arkadaşlarımdan <u>oluşmadığında</u> İngilizce konuşmaya istekliyim.					
10. Eğer seçmeli ya da ek olarak İngilizce dersi alabilseydim katılırdım.					

Appendix 4

20-Item Mini-IPIP (Beş büyük kişilik özelliği ölçeği)

	Hiç doğru değil	Doğru değil	Kararsızım	Doğru	Oldukça doğru
1. Neşe saçan bir kişiyim.					
2. Başkalarının duygularına sempati duyarım.					
3. Verilen işleri hemen hallederim.					
4. Ruh halim sık sık değişir.					
5. Canlı bir hayal gücüm vardır.					
6. Çok konuşmam.					
7. Diğer insanların problemleriyle ilgilenmem.					
8. Çoğu zaman bir şeyleri tekrar doğru yerlerine koymayı unuturum.					
9. Çoğu zaman sakinimdir.					
10. Soyut fikirlerle ilgilenmem.					
11. Kalabalık yerlerde birçok farklı insanla konuşurum.					
12. Başkalarının duygularını hissederim/anlarım.					
13. Düzen severim.					
14. Kolayca sinirlenirim.					
15. Soyut fikirleri anlamakta zorlanırım.					
16. Arka planda kalırım.					
17. Diğer insanlarla çok ilgilenmem.					
18. Her şeyi berbat ederim.					
19. Nadiren keyifsiz hissederim.					
20. İyi bir hayal gücüm yoktur.					

Appendix C (Interview Questions in English)

- Initials
 - University
 - Department
 - Grade
 - Age
1. How do you rate your proficiency level in speaking English?
 2. How often do you use social media?
 - a. Which platforms do you use the most?
 - b. What do you usually use social media for?
 - c. Do you communicate with foreigners through social media?
 - d. What is it usually about when communicating with foreigners via social media?
 - e. How do you feel when communicating in English with foreigners on social media?
 - f. What are the factors that affect you when communicating in English via social media?
 3. How often do you play online games?
 - a. Do you talk to other players in the online game?
 - b. Are the people you communicate with usually native or non-native?
 - c. Would you like to talk to natives or non-natives? Why?
 - d. Do you communicate by text or verbal while playing online games?
 - e. What topics do you usually talk to other players about?
 - f. How do you feel when communicating in English with other players?

- g. What are the factors that affect you when communicating in English through online games?
- 4. Have you ever been abroad?
 - a. Did you have the opportunity to communicate in English while abroad?
 - b. When you wanted to communicate with foreigners abroad, did you start the conversation first or did you wait for them to start?
 - c. How did you feel communicating in English face to face there?
 - d. What are the benefits of your abroad experience?
 - e. Do you think your experience abroad has affected your English communication in the classroom or in the digital context? How?
 - 5. How often would you like to be involved when English is spoken in the classroom?
 - a. How do you feel when speaking English in class?
 - b. What are the factors that affect you positively or negatively when speaking English in class?
 - 6. What do you think is the difference between communicating in English in the classroom and informal digital context?

Appendix D (Interview Questions in Turkish)

- İsminizin ve soy isminizin baş harfleri
 - Üniversiteniz
 - Bölümünüz
 - Sınıfınız
 - Yaşınız
1. İngilizce konuşmada yeterlilik seviyenizi nasıl değerlendirirsiniz?
 2. Ne sıklıkla sosyal medya kullanırsınız?
 - a. En çok hangi platformları kullanırsınız?
 - b. Genellikle sosyal medyayı ne için kullanırsınız?
 - c. Sosyal medya yoluyla yabancılarla iletişim kurar mısınız?
 - d. Yabancılarla iletişim kurduğunuzda bu genellikle ne hakkında olur?
 - e. Sosyal medyada yabancılarla İngilizce iletişim kurduğunuzda kendinizi nasıl hissedersiniz?
 - f. Sosyal medyada yabancılarla İngilizce iletişim kurduğunuzda sizi etkileyen şeyler nelerdir?
 3. Ne sıklıkla çevrimiçi oyun oynarsınız?
 - a. Çevrimiçi oyunlarla diğer oyuncularla konuşur musunuz?
 - b. İletişim kurduğunuz kişiler genellikle İngilizceyi anadili olarak konuşanlar mı yoksa ikinci ya da yabancı dil olarak konuşanlar mı?
 - c. Anadili İngilizce olanlarla mı yoksa olmayanlarla mı iletişim kurmak isterdiniz? Neden?
 - d. Oyunlarda iletişim kurarken yazılı olarak mı yoksa sözlü olarak mı iletişim kurarsınız?

- e. Diğer oyuncularla genellikle ne hakkında konuşursunuz?
 - f. Çevrimiçi oyunlarda diğer oyuncularla İngilizce iletişim kurduğunuzda kendinizi nasıl hissedersiniz?
 - g. Çevrimiçi oyunlarda diğerleriyle İngilizce iletişim kurduğunuzda kendinizi nasıl hissedersiniz?
4. Daha önce hiç yurtdışında bulundunuz mu?
- a. Yurt dışındayken İngilizce İletişim kurma fırsatın oldu mu?
 - b. Yurt dışındayken yabancılarla iletişim kurmak istediğinde konuşmayı sen mi başlattın yoksa onların başlatmasını mı bekledin?
 - c. Yurt dışında yüz yüze İngilizce iletişim kurarken kendini nasıl hissettin?
 - d. Yurt dışı deneyiminin sana ne gibi faydaları oldu?
 - e. Sence yurt dışı deneyimin sınıfta ve dijital ortamda İngilizce iletişim kurman üzerinde etkisi oldu mu?
5. Sınıfta İngilizce konuşulacağı zaman ne sıklıkla buna dahil olmak istersiniz?
- a. Sınıfta İngilizce iletişim kurarken kendini nasıl hissedersin?
 - b. Sınıfta İngilizce iletişim kurarken seni olumlu ve olumsuz yönde etkileyen faktörler neler?
6. Sizce sınıfta İngilizce iletişim kurmakla dijital ortamda iletişim kurmak arasındaki farklar nelerdir?

Appendix E

Ethics Committee Permission Document

BURSA ULUDAĞ ÜNİVERSİTESİ ARAŞTIRMA VE YAYIN ETİK KURULLARI (Sosyal ve Beşeri Bilimler Araştırma ve Yayın Etik Kurulu) TOPLANTI TUTANAĞI

OTURUM TARİHİ
27 Kasım 2020

OTURUM SAYISI
2020-09

KARAR NO 17: Eğitim Bilimleri Enstitü Müdürlüğü'nden alınan Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi Bilim Dalı Yüksek Lisans öğrencisi Nurdan FİDAN'ın "Sınıf İçinde ve İnfomal Dijital Ortamda İngilizce İletişim Kurmaya İsteklilik İle Bunların Beş Büyük Kişilik Özelliğine Göre Yordanması" konulu tez çalışması kapsamında uygulanacak anket ve ölçek sorularının değerlendirilmesine geçildi.

Yapılan görüşmeler sonunda; Eğitim Bilimleri Enstitü Müdürlüğü Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi Bilim Dalı Yüksek Lisans öğrencisi Nurdan FİDAN'ın "Sınıf İçinde ve İnfomal Dijital Ortamda İngilizce İletişim Kurmaya İsteklilik İle Bunların Beş Büyük Kişilik Özelliğine Göre Yordanması" konulu tez çalışması kapsamında uygulanacak anket ve ölçek sorularının fikri, hukuki ve telif hakları bakımından metot ve ölçeğine ilişkin sorumluluğu başvurucuya ait olmak üzere uygun olduğuna oybirliği ile karar verildi.

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