English majors' willingness to communicate in English in a face-to-face versus online instructional setting

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English majors' willingness to communicate in English in a face-to-face versus online instructional setting

Master's thesis

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Zagreb, 2024

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Zagreb, 2024

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Abstract

Willingness to communicate (WTC), a concept initially introduced in the context of first language (L1) teaching and learning in the late 20th century, has over time become a widely researched topic in second language (L2) as well as English as a Foreign Language (EFL) teaching and learning. Willingness to communicate and the various factors affecting it have mostly been studied in traditional face-to-face classes. However, during the Covid-19 pandemic many educational institutions worldwide started running classes online. This was also the case for Croatia. Online classes, even when synchronous and supported by video aid, differ from traditional face-to-face classes. Therefore, students' WTC in a foreign language in an online instructional setting might differ from that in a traditional one. This study aimed to determine whether there is a difference in EFL English majors' willingness to communicate in English in traditional face-to-face and online classes. The participants of this study were 62 undergraduate and graduate English majors at the Faculty of Humanities and Social Sciences at the University of Zagreb in Croatia. The quantitative research method was employed in the form of an online survey shared via English majors' Facebook and WhatsApp groups. The results of this study showed that the English majors' self-reported WTC in English was higher in the traditional face-to-face instructional setting than in the online instructional setting. However, when analysing undergraduates' and graduates' responses separately, it was found that there was no significant difference between the undergraduates' WTC in English in a face-to-face instructional setting and an online instructional setting. Only the graduates' WTC was significantly higher in the traditional instructional setting. Additionally, this study also found that most students preferred to have their cameras turned off when having to communicate in English during online classes and that they were more willing to communicate in English in smaller groups regardless of the instructional setting.

Key words: *willingness to communicate, EFL, online learning setting, face-to-face learning setting, tertiary education*

1 Introduction

Successful communication remains one of the key goals of foreign language learning. Because of this, research studies have focused on discovering all the different factors which help or hinder one's communication in a foreign language. In the late 20th century, one of the concepts that emerged regarding foreign language communication was the concept of the so-called *willingness to communicate*.

Willingness to communicate (WTC) has been researched in the context of both second and foreign language learning. Because English is a global language and is taught worldwide, most of the research studies have focused on the WTC of English as a Second Language (ESL) and English as a Foreign Language (EFL) students. WTC has mostly been studied in traditional classes where students are all physically present together in a room. However, during the Covid-19 pandemic, many educational institutions decided to run classes online for safety reasons. Due to this, the mode of communication between students and teachers changed. From traditional face-to-face (F2F) classes, students and teachers had to shift to online classes where they now communicated through a computer screen. This altered way of communicating could affect students' WTC since WTC is also a situational variable affected by the context in which the communication is occurring (MacIntyre et al., 1998). Recently more and more research studies have been conducted on WTC in an online setting, however there is still room for more research when it comes to the comparison between students' WTC in a traditional F2F class and their WTC in an online class. The study presented in this thesis has been conducted with that in mind and its aim is to see whether there indeed exists a difference between EFL English majors' WTC in a traditional face-to-face instructional setting and online instructional setting.

The first part of this thesis is going to focus on the theoretical background, namely, explaining the concept of WTC and the factors affecting it, followed by the exploration of WTC in an online instructional setting and the factors affecting it, as well as the previous research on the topic of WTC in a traditional and online setting. The second part of the thesis is going to present the study, followed by the findings and the discussion, and finally the conclusion.

2 Theoretical background

2.1 Willingness to communicate

When it comes to foreign language learning, the goal is to not only get learners to understand the language but also to be able to produce it, that is to say, write in it and speak it in order to be able to effectively communicate in that language. The ultimate goal of language learning is "authentic communication between persons of different languages and personal backgrounds" (MacIntyre et al., 1998, p. 559). To achieve this, various factors that possibly contribute to or inhibit language learning have been researched over the years, such as anxiety, self-confidence and motivation. One of the concepts that has also been widely researched is *willingness to communicate*.

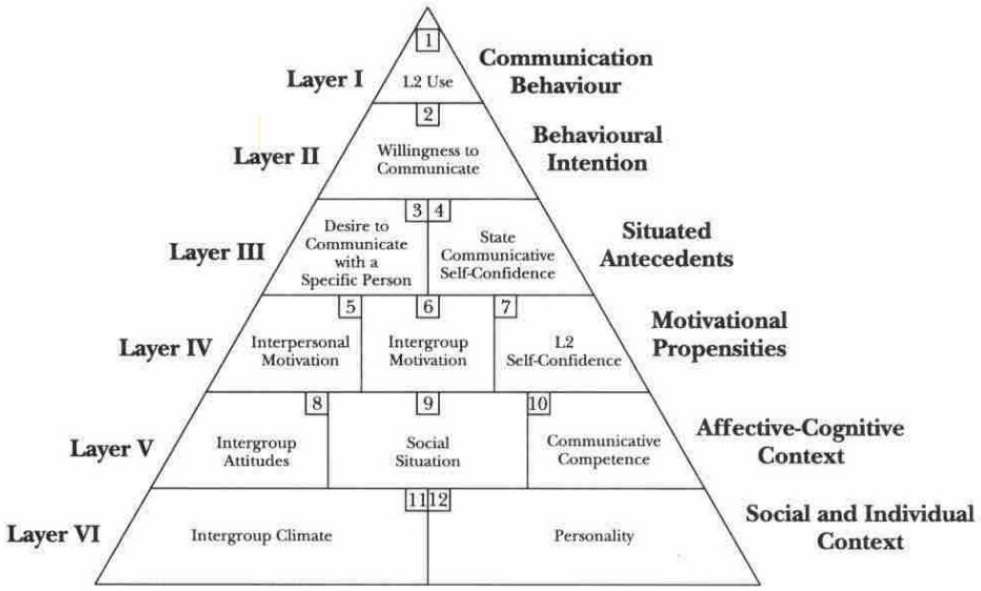
In the simplest terms, willingness to communicate (WTC) can be defined as "the probability of speaking when free to do so" (MacIntyre, 2007, p. 564). It was initially introduced as a concept in first language (L1) teaching and learning with its roots in Burgoon's (1976) concept of *unwillingness to communicate*. According to Burgoon (1976), unwillingness to communicate is a "chronic tendency to avoid and/or devalue oral communication" (p. 60). McCroskey and Baer (1985) later revisited this concept and called it *willingness to communicate*. They viewed it as a "personality variable" that accounts for the existence of variability in people's "talking behaviour" (McCroskey & Baer, 1985, p. 3).

However, not long after, WTC was also introduced as a concept in second language (L2) teaching and learning by MacIntyre and Charos (1996) and then further developed by MacIntyre, Clément, Dörnyei and Noels (1998). Since then, it has become an important topic in the field of L2 and EFL education and is considered to be a vital element in the context of a language-learning classroom (Friermuth & Jarrell, 2006).

In the context of L2, MacIntyre et al. (1998) define WTC as "readiness to enter into discourse at a particular time with a specific person or persons, using a L2" (p. 547). In comparison to McCroskey and Baer (1996) who, as mentioned previously, viewed WTC primarily as a personality variable, MacIntyre et al. (1998) view it as a situation-specific variable that "varies considerably over time and across situations" (p. 546). In other words, instead of conceptualizing WTC as trait-variable which endures over time and across situations, they conceptualize it as a state which is susceptible to change depending on the contextual factors. In addition, to better present the different linguistic, communicative and

social psychological variables that affect one's WTC in their L2, MacIntyre et al. (1998) developed a heuristic pyramid model, which is shown in figure 1.

Figure 1. *MacIntyre et al.'s (1998) heuristic model of variables influencing WTC* (MacIntyre et al., 1998, p. 547)



The pyramid consists of six layers which represent six categories of variables. The top of the pyramid represents the point at which a person can communicate in the L2, while the base of the pyramid includes the broadest factors which then influence the rest of the variables. The top three layers of the pyramid represent situation-specific variables, which are susceptible to change in different situations, and the bottom three layers of the pyramid represent the stable variables, which have a much more enduring influence on WTC. The top three layers of the pyramid include actual L2 use (layer I – communication behaviour), WTC (layer II – behavioural intention), the desire to communicate with a specific person, and state communicative competence, which is predicted by state anxiety, i.e. anxiety in a specific situation, and state perceived competence, i.e. one's perceived communication competence in a given situation (layer III – situated antecedents). The bottom three layers include intergroup and interpersonal motivation as well as L2 self-confidence (layer IV – motivational propensities), intergroup attitudes (e.g., integrativeness, motivation to learn the L2), social situations and communicative competence (layer V – affective-cognitive context) and intergroup climate and stable personality characteristics of an individual (layer VI – the societal and individual context).

An important thing to highlight is that WTC can be present even if an opportunity for communication does not arise. After all, WTC in L2 is a "readiness to enter into discourse" (MacIntyre, 1998, p. 547), so what matters is the intention to communicate regardless of whether the communication occurs or not. Students who raise their hands in class to speak up or answer a question still express WTC even if they do not get chosen to speak by the teacher (MacIntyre et al., 1998). According to MacIntyre et al. (1998), the act of hand-raising should be considered a "nonverbal communicative event" (p. 547). Hand-raising means that the individual is self-confident enough in their answer and in their L2 skills, that they are motivated, have a sufficient communicative competence, as well as a lack of anxiety (MacIntyre et al., 1998).

MacIntyre et al.'s (1998) pyramid model was later tested by Yashima (2002) who adapted it for the EFL context. Instead of *integrativeness*, which refers to a positive attitude towards L2 and a desire for affiliation with members of the L2 community (MacIntyre, 1998), Yashima (2002) uses *international posture* as a variable. International posture represents a positive inclination towards a foreign language's culture, willingness to go to that language's speaking country, readiness to interact with intercultural partners as well as openness towards different cultures (Yashima, 2002).

2.2 Factors affecting willingness to communicate

As shown by MacIntyre's et al.'s (1998) pyramid model, willingness to communicate (WTC) is affected by many different factors. Many research studies have focused on the effect of affective variables on WTC, primarily language anxiety, motivation and self-confidence, which proved to be strong predictors of one's WTC (Idzni & Setiawan, 2021; Lee & Lee, 2019; MacIntyre & Charos, 1996; Mulyono & Saskia, 2021).

Language anxiety can be defined as "the worry and usually negative emotional reaction aroused when learning or using an L2" (MacIntyre, 2007, p. 565). Language anxiety has been shown to be negatively correlated with learners' WTC (Alqarni, 2021; Idzni & Setiawan, 2021; Lee & Lee, 2019; MacIntyre & Charos, 1996; Mulyono & Saskia, 2021). On the flipside, motivation has been proven to positively influence WTC (Idzni & Setiawan, 2021; Mulyono & Saskia, 2021; Peng & Woodrow, 2010; Putri, 2023; Yashima, 2002). L2 motivation comprises "effort, desire, and attitudes toward learning the L2" (Peng & Woodrow, 2010, p. 836). MacIntyre (2007) describes motivation and language anxiety as two opposing forces affecting one's WTC, with motivation symbolising approach and language anxiety

symbolising avoidance. Their interaction leads to a "possibly critical decision for language learning success" and that is whether a learner chooses to communicate given the opportunity (MacIntyre, 2007, p. 567). Self-confidence has also been one of the very important factors with immediate influence on learners' WTC (Ardiansyah et al., 2020; Idzni & Setiawan, 2021; Lee & Lee, 2019; Mulyono & Saskia, 2021; Putri, 2023; Yashima, 2002). L2 self-confidence can be explained as "perceptions of communicative competence coupled with a lack of anxiety" (MacIntyre, 2007, p. 568). According to MacIntyre et al. (1998) self-confidence along with the social context are the main predictors of WTC.

Another set of important factors affecting WTC, and more relevant to this particular study, are those described in layer V in MacIntyre et al.'s (1998) pyramid model, more precisely the variable of *social situations*. The social situation is "a composite category describing a social encounter in a particular setting" (MacIntyre et al., 1998, p. 553). Factors that influence situational variation in particular are the participants (their age and gender, their closeness, etc.), the topic of discussion, the purpose of the communication, the setting, and the channel of communication.

The topic of communication has been shown to affect one's WTC (Ardiansyah et al., 2020; Pawlak et al., 2016; Putri, 2023) since it can affect the ease of language use. Familiarity with a topic can boost one's linguistic self-confidence but unfamiliarity with a topic can hinder even a generally confident speaker (MacIntyre et al., 1998). Additionally, a topic that is more interesting to learners has been shown to make them more likely to communicate (Pawlak et al., 2016). The purpose of the communication refers to "the goals or intentions of discourse, which direct the communication activities of participants" (MacIntyre, 1998, p. 553). Communication happening for the sake of education or one happening for the sake of sharing personal information are two different types of communication, and therefore, WTC in these two different communication situations may differ as well. In connection to this, the setting where the communication occurs is also an important factor. The setting can be defined as "the place and time of communication" (p. 553). Communication differs from setting to setting which naturally means that WTC is likely to differ as well. A classroom setting differs from the setting outside the classroom. As WTC started to be considered in L2 and especially EFL context, a need to observe WTC in a classroom setting emerged. Because of this, classroom environment and atmosphere have recently been a lot more researched (Ardiansyah et al., 2020; Idzni & Setiawan, 2021; Osterman, 2014; Putri, 2023). The communication channel also impacts WTC and is directly related to the environment

(Friermuth & Jarrell, 2006, p. 191). The communication channel has to do with "the medium chosen for the communication" (MacIntyre et al., 1998, p. 554), such as written word, oral and more recently, *computer-mediated communication*.

2.3 Willingness to communicate in an online instructional setting

With the advancement of technology, online learning has become one of the possible ways of exchanging knowledge in the 21st century. During the Covid-19 pandemic, most educational institutions, especially universities, switched to online learning classes. Online learning or e-learning can be defined as "learning and teaching online through network technologies" (Hrastinski, 2014, p. 51). It is part of distance education that "combines electronic technology and internet-based technology or ICT in learning" (Efriana, 2021, p. 39).

In recent times more and more research has been done on online learning, its effectiveness, its advantages and disadvantages as well as comparisons between online learning and traditional, face-to-face (F2F) learning. Online learning can be divided into two main types: asynchronous and synchronous online learning. Asynchronous learning, as its name suggests, does not occur in real-time and, in that sense, offers a more flexible approach to online learning since the participants do not have to be online and connected at the same time (Hrastinski, 2014). An example of this are discussion boards or platforms where students can upload their assignments. On the other hand, synchronous online learning happens in 'real-time'. This type of online learning includes, for example, chat and videoconferencing (Hrastinski, 2014).

Although the research on willingness to communicate (WTC) in L2 and EFL has initially been focused on observing traditional classroom settings, with the progression of technology, research studies have started observing learners' WTC in online settings as well. The results of the studies differ in that some studies have found that online learning can have a positive influence on L2 and EFL students' WTC (Al-Amrani & Harrington, 2020; Alqarni, 2021; Said et al., 2021), while others have found that online learning can hamper students' WTC as well (Altunel, 2021; Bakar et al., 2021; Topalov et al., 2022). Some of the earlier research studies focused on WTC in digital settings in general and then compared it to traditional classrooms. Lee and Lee's (2019) study showed that L2 motivation, grit and a lack of L2 speaking anxiety are significant predictors of students' WTC inside the classroom, students' majors, level of L2 self-confidence and degree of risk-taking as predictors of their WTC outside the classroom, and that age, L2 self-confidence and virtual intercultural

experience are predictors of their WTC in digital settings. WTC was the highest outside the classroom, then in digital environments, and lastly, inside the classroom. English majors in particular scored significantly higher than non-English majors when it came to their WTC in all three settings. In the F2F setting, motivation, self-confidence, risk-taking, grit and virtual intercultural experiences were positively correlated, while speaking anxiety was negatively correlated. Speaking anxiety played less of a role in digital and outside of the classroom settings. WTC in digital settings was significantly linked to all the variables except for grit. Mulyono and Saskia (2021) conducted a study on Indonesian EFL secondary school and university students' WTC in F2F (inside and outside the classroom) and digital environments and found that the three studied affective variables, self-confidence, speaking anxiety and motivation were all significant predictors for WTC in both F2F and digital settings. The results also showed that the students' WTC was higher in digital settings than in the F2F settings.

Other studies, most of them more recent, focused on WTC in an online instructional setting, and have found that EFL students prefer the online learning setting as opposed to the traditional F2F setting (Al-Amrani & Harrington, 2020; Alqarni, 2021; Friermuth & Jarrell, 2006; Rahmati & Ajeng, 2021; Said et al., 2021). Friermuth and Jarrell (2006) investigated female Japanese university students' WTC in an F2F environment as well as in synchronised online chat and found that the students preferred online chat over F2F mode. The chat allowed the students to prepare before commenting, lowering their anxiety and the pressure of immediacy that is present in an F2F setting. Said et al. (2021) have investigated Indonesian EFL university students' WTC in online learning during the Covid-19 pandemic. They administered a 16-item Likert-scale to 71 participants which measured the students' perception of their WTC in an online learning setting. They found that the students did not feel nervous in online English classes and preferred online class discussions over offline class discussions as well as listening over speaking in online class discussions. Rahmati and Ajeng's (2021) study found that students experienced less anxiety during online classes in comparison to F2F classes.

On the other hand, several other studies have found that the online instructional setting has not been well received by students and that it has had a negative effect on their WTC (Altunel, 2021; Bakar et al., 2021; Chojimah & Widodo, 2023; Meşe & Sevilen, 2021; Rachmah & Damayanti, 2020; Topalov et al., 2022). Altunel (2021) conducted semi-structured interviews with 12 university students from various departments who attended

English preparatory school in Turkey and found that EFL students' WTC was negatively affected by their shy personality, the nature of online education and a lack of confidence in their speaking skills. The students felt that learning in an online setting made language learning more difficult and less productive than learning in a traditional F2F setting. According to the students, the reasons for this were limited interaction opportunities between teachers and students and the possibility of various distractions at their homes. During their online classes, students would mostly speak English only if they were asked to answer a question by their instructor. Meşe and Sevilen (2021) found that online education negatively affects EFL students' motivation due to a lack of social interaction, a mismatch between expectations and content, and organizational problems. Chojimah and Widodo (2023), who explored the domestic students' WTC in English in an international class, report that students found the online mode of learning to negatively contribute to their WTC in English. Students felt that Zoom was like a "border between students and lecturers" and prevented them from being close (p. 55)

EFL teachers have also reported that students' WTC has suffered in the online instructional setting as opposed to the traditional F2F classroom. Kusuma et al. (2021) interviewed EFL teachers who reported that their students were mostly silent and passive in class, not willing to communicate nor ask questions. Some students would not turn on the camera which prevented affective social presence from forming. According to Jem et al.'s (2021) study EFL teachers reported students' unwillingness to communicate during online classes during the Covid-19 pandemic as well as a lack of communication. They also reported that students were easily distracted and that the technical problems that could occur during online classes also negatively affected language learning during the classes.

2.4 Factors affecting willingness to communicate in an online instructional setting

When it comes to factors affecting willingness to communicate (WTC) in an online instructional setting, they overlap with those in a traditional instructional setting, such as, motivation, language anxiety and self-confidence, however there are some additional factors such as social presence as well as factors regarding information technology like the use of camera during online classes and the internet connection. Ardiansyah et al. (2020) measured English majors' WTC during an online discussion and found that vocabulary, self-confidence, topic familiarity, interlocutors, atmosphere as well as technological problems all affected students' WTC. Idzni and Setiawan (2021) conducted a study on 25 Jakarta eighth graders' WTC in a synchronous online class and the students showed low level of WTC with four

predictive factors: self-confidence, anxiety, motivation, students' personalities and situational variables (task type, classroom environment and teacher roles). Putri (2023) tried to find out which factors impacted EFL English major students' WTC in an online instructional setting and found that self-confidence, high English proficiency, motivation, extroverted personality, task types, interesting and familiar topics, lecturer's positive approach, positive classroom atmosphere, conducive learning environment and poor internet connection were predictors of the students' WTC.

Some studies have found that EFL students' anxiety appears to be lower in the online instructional setting than in the traditional F2F setting (Alqarni, 2021; Pichette, 2009; Rahmati & Ajeng, 2021), which then contributed to their higher WTC. To a degree, this can be attributed to lower social presence in the online environment. Social presence represents "the degree to which a person is perceived as a 'real person' in mediated communication" (Gunawardena, 1995, p. 151). Moreover, online social presence can be defined as "the degree of feeling connected to, perceiving, and reacting to another intellectual entity without being physically present in the same space" (Al-Amrani & Harrington, 2020, p. 223).

In a traditional F2F environment, we communicate not only verbally but also non-verbally, using non-verbal cues such as facial expressions, direction of the gaze, physical presence and even dress (Gunawardena, 1995). Computer-mediated communication (CMC) has a lower social presence than the traditional F2F communication; however, interactive video and audio systems do "permit the transmission of facial expressions, gestures, and tone of voice" but create interaction patterns that are different from the traditional F2F context (Gunawardena, 1995, p. 148). The social climate that is mediated by communication technology in online learning is different from that in a traditional classroom and creates different group dynamics (Gunawardena, 1995). Two important aspects that contribute to social presence are intimacy and immediacy. The level of intimacy depends on factors like physical distance, eye contact, smiling as well as how personal the topics of the conversation are (Gunawardena, 1995). Immediacy is "a measure of the psychological distance which a communicator puts between himself or herself and the object of his/her communication" and depends both on verbal and nonverbal behaviours (Gunawardena, 1995, p. 151). Al-Amrani and Harrington (2020) posit that immediacy is difficult to achieve in an online setting because of the lack of tools that can convey nonverbal social cues in computer-mediated communication. This aspect of CMC can either contribute to students' WTC or hinder it.

Le et al. (2018) studied the correlation between EFL WTC and social presence in both synchronous and asynchronous online environments. They found that "the more social presence students felt they had in the online environment, the less their WTC" (p. 43). Text and audio chat proved to be less threatening than video chat as these modes of communication have lower levels of social presence. This aligns with Al-Amrani and Harrington's (2020) findings that social presence is higher in synchronous CMC than in asynchronous CMC. Furthermore, in Le et al.'s (2018) study, communication with the camera turned on was perceived to be equally anxiety inducing as in F2F communication. Students' WTC depended on the level of social presence in the online mode, in other words, the more social presence they experienced, the less willing they were to communicate.

However, the lack of social presence can also contribute to lower WTC, possibly due to lower motivation. In their study, Zohrabi and Bimesl (2022) found that the lack of verbal clues, in other words, body language, decreased students' motivation and participation in class. Similarly, Bakar et al. (2021) found that ESL Malaysian university students preferred communicating in English face-to-face rather than through an online platform since, due to having their cameras turned off, they could not always see the other students' faces. They experienced a lack of motivation as well as lower social presence, partly due to unfamiliarity with other classmates as well as various distractions in their home, which could impede their focus and concentration in class. Students who participate in synchronous videoconferencing are still affected by people in their physical environment, such as roommates or family members and the possibility of them overhearing them or seeing what is going on in their virtual environment. This may "severely hamper the students' freedom to immerse themselves in the virtual learning environment and to abandon themselves to intellectual delights" (Cunningham, 2011, p. 35).

While attending synchronous online classes during the Covid-19 pandemic, university students in Croatia were often asked to turn on their cameras. However, many students refused to do so, and this phenomenon has been noticed in other countries as well. Waluyo and Wangdi (2023) found that EFL students preferred to keep their cameras off during synchronous online lessons. Turning their cameras on/off depended on classroom dynamics, classroom exhaustion and participation, physical appearance and background, unrelated physical activity, distractions and technical issues. Gender and English proficiency did not correlate with students' turning their cameras on/off and the "statistical analysis showed no detrimental effects of a camera on/off on the students' English learning outcomes" (Waluyo &

Wangdi, 2023, p. 178). Students would turn their cameras on, so that their teachers could ensure that they were present in class, to help them concentrate on their studies better, to make the classroom friendlier and to encourage participation. Students would turn their cameras off to avoid getting addressed by their teachers, to respect their roommates' privacy and due to constant concern about their appearances. Another reason were technical issues like poor internet connection or older devices which would start overheating. The decision to turn their cameras on/off appeared to be situation-dependent and may have involved teachers' instructions, time of the class, technical issues and the conditions of the learning environment – a large number of people, noise at home or in dormitories. Cunningham (2011) also reports her own experiences with synchronous online teaching and notes that "students who are not obliged to use a webcam will generally prefer not to" (p. 31).

Finally, as much as online learning has the advantage in its ability to be able to enable the exchange of knowledge between participants who are physically far away from each other, it also has the disadvantage of being reliant on a good internet connection and access to technology. Technical problems, poor or slow internet connection and the lack of physical interactions may hamper students' motivation as well as lead to feelings of social isolation (Hazaymeh, 2021). Poor internet connection and technical problems have also been mentioned as one of the factors that negatively impact EFL students' WTC (Ardiansyah et al., 2020; Putri, 2023; Shcherbakova et al., 2023). Since the internet is the mediator of communication in online communication, a poor internet connection can become a barrier to students' WTC because it prevents them from listening to their interlocutors and as such decreases their likelihood of responding (Ardiansyah et al., 2020).

2.5 Previous research

Although numerous studies have been done on EFL learners' willingness to communicate (WTC), less research has been done on their WTC in an online instructional environment. This, however, started to change due to the Covid-19 pandemic because during the pandemic, many schools and faculties started to conduct their classes online, and thus new research studies pertaining to WTC in online classes emerged. At the time of this study there have not been many studies comparing EFL students' WTC in a traditional F2F classroom setting and online classroom setting. In addition, the results of the studies also varied from study to study, with some reporting higher WTC in an online setting while others reporting lower WTC in an online setting than in the traditional setting. Furthermore, even less research has been done with EFL English majors as participants. Therefore, it would be valuable to see

whether a different instructional setting has a significant impact on the WTC of students with a high level of English language proficiency.

Al-Amrani and Harrington (2020) conducted a study on the impact of online social presence on EFL students' WTC. The study aimed to measure the students' WTC in both the online and F2F environment and the variables investigated were the type of the interlocutor (friend, acquaintance or stranger) as well as context (e.g. group size). The participants were 28 Omani female university students. The instrument used was a questionnaire followed by interviews. The results of the participants' WTC varied significantly and some of them reported their WTC to be lower in an online environment than in the F2F environment, mainly due to the lower level of social presence in the online environment. The online classes were conducted in the form of online discussion forums and chat rooms. The results showed that the students had higher WTC in an online environment than in the F2F environment. However, it should be pointed out that the mode of communication in the online environment was text-based. WTC was higher in smaller groups irrespective of the environment.

Alqarni (2021) conducted a study on EFL students' WTC and speaking anxiety in both online and traditional settings. The participants were 106 Saudi undergraduate EFL English majors who filled in an online questionnaire. The study found that WTC was higher in the online learning setting than in the F2F setting, that foreign language classroom enjoyment was a positive predictor, while foreign language anxiety was a negative predictor of the undergraduate students' WTC and that a high course grade was only a positive predictor only in the case of the online setting.

Topalov et al. (2022) studied WTC in English in three different modes of interaction in synchronous online English language lessons (WTC using video communication, WTC using audio communication and WTC using text-based communication) and then compared the results with students' WTC in a traditional F2F language classroom. Their participants were 281 students from the University of Novi Sad in Serbia who took a course in English as part of their study programmes but were not English language majors. The results of their research study showed that students' WTC in an F2F classroom was higher than their WTC in any of the three online settings. And among the three modes of interaction in online classes, the lowest WTC was reported in the video communication mode, while the audio communication and text-based communication mode had comparatively similar reported levels of WTC.

When it comes to research in Croatia, there have been a few studies focusing on WTC in English; however, none of them studied WTC in an online instructional setting. Siročić (2014) conducted a study which measured young EFL learners' WTC in English as well as their language anxiety. Ležaić (2014) studied WTC in relation to age and level of proficiency by sampling elementary students, high-school students and English majors and found that the motivation between the three groups was comparable but that the English majors had a lot more language anxiety. His study also showed that a higher level of proficiency correlated with higher WTC. Djigunović and Letica (2009) conducted a study with the students of the Faculty of Humanities and Social Sciences at the University of Zagreb in Croatia. However, they found no significant correlation between WTC and those variables that pertained to students' personal characters, so they proposed that WTC in the context of foreign language classrooms should be regarded as a situational variable more so than a stable trait of an individual. Janeš (2019) previously conducted a study with English majors at the University of Zagreb and found that their WTC was relatively high and that the most predictive factors of WTC were, in fact, the teacher aspect (liking or disliking the teacher, teacher's encouragement for the students to speak) as well as the classmate aspect (class size, classmates' willingness to speak), more so than motivation and topic.

As seen from the above examples, not many studies have focused on comparing EFL English language majors' WTC in the traditional F2F setting thus far, and no such study has been conducted in Croatia. Alqarni's (2021) study did include EFL English majors; however, it only included undergraduate students. Therefore, the present study still has room to provide some new insight into EFL English majors' WTC in these two instructional contexts as it includes graduate students and has been conducted in a different regional and cultural context.

3 The study

3.1 Aim

The aim of this study was to measure English language majors' willingness to communicate (WTC) in English in a face-to-face (F2F) and online instructional setting and to see whether there was a difference in the level of their WTC between these two different instructional settings. Therefore, the following research questions are:

1. Is there a significant difference between English language majors' WTC in English in an F2F instructional setting and an online instructional setting?

2. Is there a significant difference between English language majors' WTC in English in F2F classes and online classes with regards to their gender, other study group and year of study?

Based on the researcher's personal experiences and observations, EFL teachers' observations (Jem et al., 2021; Kusuma et al., 2021), insights from some previous studies (Altunel, 2021; Chojimah & Widodo, 2023) as well as the findings of Topalov et al.'s (2022) study, which is comparable to the present study and conducted in a regionally close context, the researcher poses the following hypotheses:

(H1) There is a difference between English majors' WTC in English in a traditional F2F instructional setting and an online instructional setting.
(H2) Students are less willing to communicate in English in an online instructional setting than in a traditional F2F instructional setting.

3.2 Participants

The participants in this study were 62 English language majors of The Faculty of Humanities and Social Sciences at the University of Zagreb. The sample included students both from the undergraduate and graduate programmes. The majority of the participants were fifth-year students (N=32), followed by fourth-year (N=16) and third-year students (N=11) and only two second-year students and one first-year student. Participants were predominantly female (N=50), eleven were male, while one participant selected the option 'other'. Most of the participants (N=51) attended online classes during their English studies for over a year, while five of them attended online classes for a year and six of them attended them for less than a year. Since the survey was administered in the academic year 2022/2023 when the classes at The Faculty of Humanities and Social Sciences at the University of Zagreb once again began to be held offline, all students experienced the traditional F2F classes as well. The majority of participants replied that their other study group was another foreign language (N=37), while the remaining twenty-five did not have another foreign language as their second study group. The ages of participants ranged between 19 and 30, with a mean age of 23.81 (SD= 2.02).

3.3 Methodology

To gather the data for the study, a quantitative method approach was used. The participants were asked to fill in an online survey which was shared via English majors' Facebook and WhatsApp groups. The survey was administered online in the form of Google Forms and the answers were collected from May until the beginning of July 2023. Participation was voluntary and anonymous. The survey was administered in English given the fact that all the participants were English language majors.

For the purposes of this study, a new instrument was created based on previous studies and literature regarding willingness to communicate (WTC) (Janeš, 2019; Idzni & Setiawan, 2021; Topalov et al, 2022; Waluyo & Wangdi, 2023). Items 5 and 6 were adapted from Topalov et al.'s (2022) questionnaire and then adjusted for the online context (items 16 and 17), item 11 was adapted from Idzni & Setiawan's (2021) questionnaire and then adjusted for the online context (item 22), while item 2 was directly taken from the questionnaire created by Janeš (2019) and adapted for the online context (item 13). The rest of the items were all original items created by the researcher. The instrument consisted of 25 items. Ten items were designed to measure students' level of WTC in English in an instructional setting and then each of these items was first applied to and adapted for the F2F instructional setting and then for the online one as well. These two sets of ten items were treated as two separate instruments later in the analysis, one measuring the level of WTC in English in the F2F instructional setting and the other in the online one. In addition to these 20 items, there were five additional items (items 8, 19, 23, 24 and 25), which were included to give additional insight into students' WTC but did not measure its overall level, and therefore, were not included when calculating the Cronbach's alpha. Since these items were analysed separately, they will also be presented separately. Out of these five additional items, one pertained to the F2F setting and four to the online setting. One of these additional items focused on students' WTC regarding class size (item 8 for the F2F and item 19 for the online setting), two items regarding camera usage (items 23 and 24) and one item regarding technical problems (item 25) in online classes. All the items are listed in the appendix and divided into items measuring students' WTC in an F2F setting, items measuring their WTC in an online setting and additional items.

In the first part of the survey, the participants were asked to fill in their age, gender, year of study, whether their other study group was another foreign language or not and for how long they attended online classes. The second part of the questionnaire was a five-point Likert scale consisting of the above described 25 items relating to WTC in both traditional

F2F and online instructional settings. The participants could choose from 1 to 5 whether they strongly agreed, agreed, neither agreed nor disagreed, disagreed or strongly disagreed with each given statement. Their answers were later reverse-coded for easier interpretation of the results, and rated from 1 (strongly disagree), indicating low WTC, to 5 (strongly agree), indicating high WTC. Items 2, 13, 4 and 15 were reverse-scored.

4. Results and discussion

As already mentioned, the instrument was treated and analysed as two separate instruments – one for the F2F context and one for the online context. To test the instruments' reliability, Cronbach's alpha was calculated for both contexts. Cronbach's alpha for the instrument measuring participants' WTC in the F2F instructional setting is α=.873, and for the instrument measuring participants' WTC in the online instructional setting, it is α=.897. Both these results indicate good instrument reliability.

Table 1. *WTC in the F2F instructional setting and online setting paired t-test and Wilcoxon signed rank-test:*

Setting	**M**	**SD**	**Cronbach's α**	**Paired t-test**	
				t-score	**p-value**
WTC F2F	3.56	0.866	0.873	4.43	<.001
WTC online	3.13	0.958	0.897		

In order to compare the levels of WTC in both the F2F and online instructional setting, a paired t-test was performed since the samples passed the Shapiro-Wilk normality test. The results of the entire instrument showed that students' WTC in the traditional F2F instructional setting (M=3.56, SD=0.866) was statistically significantly higher ($p<0.001$) than in the online instructional setting (M=3.13, SD=0.958). This result confirmed both previously proposed hypotheses. These findings are also consistent with Topalov et al.'s (2022) findings but contradict Al-Amrani and Harrington (2020) and Alqarni's (2021) findings. It should be noted that only Alqarni (2021) had English majors as participants; however, the different findings in the present study can be attributed to the fact that Alqarni's study did not include graduate students as well as the different regional and cultural context.

The results of the descriptive statistics of individual items are shown in the table below. Value 5 is associated with high WTC, while value 1 is associated with low WTC. Items 2, 4,

13 and 15 were reverse-scored. In the following tables, each item for the F2F context is followed by the equivalent item for the online context.

Table 2. *WTC in the F2F instructional setting and online setting descriptive statistics*

Item	**Sentiment**	**N**	**%**	**M**	**SD**
1) I am willing to speak English in a face-to-face class.	Strongly agree	34	54.8	4.27	0.995
	Agree	16	25.8		
	Neutral	9	14.5		
	Disagree	1	1.6		
	Strongly disagree	2	3.2		
	Total	62	100		
12) I am willing to speak English in an online class.	Strongly agree	24	38.7	3.75	1.279
	Agree	14	22.6		
	Neutral	12	19.4		
	Disagree	8	12.9		
	Strongly disagree	4	6.5		
	Total	62	100		
2) I am more willing to communicate in Croatian than in English when there is an opportunity to do so, in a face-to-face class.	Strongly agree	16	25.8	2.73	1.462
	Agree	17	27.4		
	Neutral	8	12.9		
	Disagree	10	16.1		
	Strongly disagree	11	17.7		
	Total	62	100		
13) I am more willing to communicate in Croatian than in English when there is an opportunity to do so, in an online class.	Strongly agree	16	25.8	2.76	1.422
	Agree	12	19.4		
	Neutral	16	25.8		
	Disagree	7	11.3		
	Strongly disagree	11	17.7		
	Total	62	100		
3) I am willing to volunteer answers in English in a face-to-face class.	Strongly agree	23	37.1	3.84	1.190
	Agree	19	30.6		
	Neutral	10	16.1		
	Disagree	7	11.3		
	Strongly disagree	3	4.8		
	Total	62	100		
14) I am willing to volunteer answers in English in a face-to-face class.	Strongly agree	18	29	3.48	1.302
	Agree	15	24.2		
	Neutral	13	21		
	Disagree	11	17.7		
	Strongly disagree	5	8.1		
	Total	62	100		

4) I prefer to communicate in English in a face-to-face class only when I am asked to speak.	Strongly agree	4	6.5	3.18	1.109
	Agree	15	24.2		
	Neutral	15	24.2		
	Disagree	22	35.5		
	Strongly disagree	6	9.7		
	Total	62	100		
15) I prefer to communicate in English in an online class only when I am asked to speak.	Strongly agree	15	24.2	2.61	1.259
	Agree	16	25.8		
	Neutral	13	21		
	Disagree	14	22.6		
	Strongly disagree	4	6.5		
	Total	62	100		
5) I am willing to participate in a class discussion in English in a face-to-face class when I am familiar with the topic.	Strongly agree	36	58.1	4.32	1.004
	Agree	16	25.8		
	Neutral	6	9.7		
	Disagree	2	3.2		
	Strongly disagree	2	3.2		
	Total	62	100		
16) I am willing to participate in a class discussion in English in an online class when I am familiar with the topic.	Strongly agree	20	32.3	3.71	1.219
	Agree	19	30.6		
	Neutral	12	19.4		
	Disagree	7	11.3		
	Strongly disagree	4	6.5		
	Total	62	100		
6) I am willing to participate in a class discussion in English in a face-to-face class even when I am NOT familiar with the topic.	Strongly agree	10	16.1	2.82	1.373
	Agree	11	17.7		
	Neutral	11	17.7		
	Disagree	18	29		
	Strongly disagree	12	19.4		
	Total	62	100		
17) I am willing to participate in a class discussion in English in an online class even when I am NOT familiar with the topic.	Strongly agree	9	14.5	2.39	1.429
	Agree	6	9.7		
	Neutral	7	11.3		
	Disagree	18	29		
	Strongly disagree	22	35.5		
	Total	62	100		
7) I am willing to ask the teacher for clarification in English if I didn't understand something in a face-to-face class.	Strongly agree	17	27.4	3.37	1.370
	Agree	15	24.2		
	Neutral	11	17.7		
	Disagree	12	19.4		
	Strongly disagree	7	11.3		
	Total	62	100		

18) I am willing to ask the teacher for clarification in English if I didn't understand something in an online class.	Strongly agree	12	19.4	3.06	1.424
	Agree	17	27.4		
	Neutral	7	11.3		
	Disagree	15	24.2		
	Strongly disagree	11	17.7		
	Total	62	100		
9) I am willing to volunteer an answer in English even when I see that the other students have raised their hands in a face-to-face class.	Strongly agree	16	25.8	3.24	1.522
	Agree	18	29		
	Neutral	7	11.3		
	Disagree	7	11.3		
	Strongly disagree	14	22.6		
	Total	62	100		
20) I am willing to volunteer an answer in English even when I see that the other students have turned on their microphones in an online class.	Strongly agree	4	6.5	2.29	1.359
	Agree	12	19.4		
	Neutral	8	12.9		
	Disagree	12	19.4		
	Strongly disagree	26	41.9		
	Total	62	100		
10) I am willing to participate in a discussion in English in a face-to-face class when I am interested in the given topic.	Strongly agree	35	56.5	4.34	0.940
	Agree	18	29		
	Neutral	5	8.1		
	Disagree	3	4.8		
	Strongly disagree	1	1.6		
	Total	62	100		
21) I am willing to participate in a discussion in English in an online class when I am interested in the given topic.	Strongly agree	19	30.6	3.71	1.193
	Agree	20	32.3		
	Neutral	13	21		
	Disagree	6	9.7		
	Strongly disagree	4	6.5		
	Total	62	100		
11) I am willing to give a presentation in English in front of my fellow students in a face-to-face class.	Strongly agree	24	38.7	3.50	1.523
	Agree	11	17.7		
	Neutral	10	16.1		
	Disagree	6	9.7		
	Strongly disagree	11	17.7		
	Total	62	100		
22) I am willing to give a presentation in English in front of my fellow students in an online class.	Strongly agree	19	30.6	3.53	1.376
	Agree	19	30.6		
	Neutral	7	11.3		
	Disagree	10	16.1		
	Strongly disagree	7	11.3		
	Total	62	100		

**The mean of items 2, 4, 13 and 15 was calculated after the responses for these items had been reverse-coded.*

Table 3. *Wilcoxon signed rank-test for WTC in both settings*

Item – F2F	**Setting**	**M**	**SD**	**Wilcoxon W**	**Z**	**p-value**
1) I am willing to speak English in a face-to-face class.	F2F	4.27	0.995	427.000	-3.11	.002
12) I am willing to speak English in an online class.	online	3.75	1.279			
2) I am more willing to communicate in Croatian than in English when there is an opportunity to do so, in a face-to-face class.	F2F	2.73	1.462	183.000	0.47	.637
13) I am more willing to communicate in Croatian than in English when there is an opportunity to do so, in an online class.	online	2.76	1.422			
3) I am willing to volunteer answers in English in a face-to-face class.	F2F	3.84	1.190	486.000	-2.07	.038
14) I am willing to volunteer answers in English in a face-to-face class.	online	3.48	1.302			
4) I prefer to communicate in English in a face-to-face class only when I am asked to speak.	F2F	3.18	1.109	555.000	-3.13	.002
15) I prefer to communicate in English in an online class only when I am asked to speak.	online	2.61	1.259			
5) I am willing to participate in a class discussion in English in a face-to-face class when I am familiar with the topic.	F2F	4.32	1.004	583.000	-4.11	<.001
16) I am willing to participate in a class discussion in English in an online class when I am familiar with the topic.	online	3.71	1.219			
6) I am willing to participate in a class discussion in English in a face-to-face class even when I am NOT familiar with the topic.	F2F	2.82	1.373	385.000	-3.27	.001
17) I am willing to participate in a class discussion in English in an online class even when I am NOT	online	2.39	1.429			

familiar with the topic.						
7) I am willing to ask the teacher for clarification in English if I didn't understand something in a face-to-face class.	F2F	3.37	1.369	387.000	-1.94	.052
18) I am willing to ask the teacher for clarification in English if I didn't understand something in an online class.	online	3.06	1.424			
9) I am willing to volunteer an answer in English even when I see that the other students have raised their hands in a face-to-face class.	F2F	3.24	1.522	753.000	-4.24	<.001
20) I am willing to volunteer an answer in English even when I see that the other students have turned on their microphones in an online class.	online	2.29	1.359			
10) I am willing to participate in a discussion in English in a face-to-face class when I am interested in the given topic.	F2F	4.34	0.939	484.000	-4.26	<.001
21) I am willing to participate in a discussion in English in an online class when I am interested in the given topic.	online	3.71	1.193			
11) I am willing to give a presentation in English in front of my fellow students in a face-to-face class.	F2F	3.50	1.523	206.000	0.24	.809
22) I am willing to give a presentation in English in front of my fellow students in an online class.	online	3.53	1.376			

** The mean of items 2, 4, 13 and 15 was calculated after the responses for these items had been reverse-coded.*

To analyse the individual items, along with descriptive statistics, the Wilcoxon sign-ranked test was used to compare WTC in the two different settings. Items 1 and 12 asked about the participants' WTC in general in the two settings, and there was a significant difference between the students' WTC in the two contexts ($p<0.01$). Their WTC appeared to be significantly higher in the traditional F2F context (M=4.27, SD=0.995) than in the online context (M=3.75, SD=1.279). Despite the fact that the students' WTC in English was rather high in both contexts, items 2 and 13 still showed that most students would have preferred to communicate in Croatian rather than in English in both settings. The scores for the F2F setting (M=2.73, SD=1.462) and the online setting (M=2.76, SD=1.422) were rather similar.

The scores indicated that the students were slightly more willing to communicate in English than in Croatian in an online instructional setting than in the F2F setting. A comparison of items 3 and 14 showed that students were more willing ($p<0.05$) to volunteer answers in English in an F2F class (M=3.84, SD=1.190) than in an online class (M=3.48, SD=1.302). Items 4 and 15 (preference to communicate in English in class only when asked to speak) were reverse-scored because an agreement with the statement indicates lower WTC. The results showed once again that students' WTC was significantly higher ($p<0.01$) in an F2F class (M=3.18, SD=1.109) than in an online class (M=2.61, SD=1.259). In other words, in an online class the students preferred to communicate in English only when asked to speak (50% agreed or strongly agreed) while this was not so much the case in an F2F class (30.7% agreed or strongly agreed). Items 5, 16, 6 and 17 were related to WTC and topic familiarity. Comparison of items 5 and 16 and 6 and 17 showed that students were more willing to communicate in English in an F2F class than in an online class both when they were familiar ($p<0.001$) and were not familiar with the topic ($p<0.01$). With that said, it is quite evident that students were much more willing to communicate when they were familiar with the topic (F2F – M=4.32, SD=1.004; online – M=3.71, SD=1.219) than when they were not, regardless of the instructional setting. This is consistent with previous studies (Ardiansyah et al., 2020; Pawlak et al., 2016; Putri, 2023). Items 7 and 18 also showed that students were more willing to ask for clarification in English in an F2F class (M=3.37; SD=1.369) than in an online class (M=3.06 SD=1.424); however, the difference was not statistically significant ($p>0.05$). Items 9 and 20 showed that the students were significantly more willing ($p<0.001$) to volunteer answers when they saw that other students had their hands raised in an F2F class (M=3.24, SD=1.522) than to volunteer answers when they saw other students turning on their microphones in an online class (M=2.29 SD=1.359). As previously mentioned, even raising one's hand can be considered as showing WTC (MacIntyre et al., 1998). In the case of online learning, hand-raising is often replaced by turning on the microphone. However, turning on the microphone is potentially even more indicative of one's willingness to speak than the raising of one's hand. If a student turns on a microphone, there is a greater probability that the student is going to speak than if a student just raised their hand; therefore, other students might not even try to speak up. Items 10 and 21 showed that there existed a significant difference ($p<0.001$) between students' willingness to participate in a discussion in English even when they were interested in the given topic in the F2F class and online class, in which case their WTC was significantly higher in an F2F setting (M=4.34, SD=0.939) than in an online setting (M=3.71, SD=1.193). That an interesting topic makes students more willing to

communicate has been proven by previous studies (Pawlak et al., 2016; Putri, 2023). However, it is still interesting that the results of the present study showed that the online instructional setting made students less willing to communicate in English even when they found the topics of discussion interesting. Items 11 and 22 showed that students were slightly more willing to give a presentation in English in an online class (M=3.53, SD=1.376) than in an F2F class (M=3.50, SD=1.523). This can be explained by the lower social presence of the online setting. When presenting in an online class, students see their own presentation screen and not their peers' faces. In an F2F class, students have to stand in front of the class and give a presentation, which can make them nervous or less confident which then in turn affects their WTC in English.

Table 4. *Descriptive data of additional items 8 and 19*

Item	**Sentiment**	**N**	**%**	**M**	**SD**
8) I am more willing to communicate in English in a smaller class (20 or fewer students) than a bigger class (more than 20 students) in a face-to-face class.	Strongly agree	35	56.5	4.06	1.341
	Agree	11	17.7		
	Neutral	8	12.9		
	Disagree	1	1.6		
	Strongly disagree	7	11.3		
	Total	62	100		
19) I am more willing to communicate in English in a smaller class (20 or fewer students) than a bigger class (more than 20 students) in an online class.	Strongly agree	25	40.3	3.95	1.151
	Agree	19	30.6		
	Neutral	12	19.4		
	Disagree	2	3.2		
	Strongly disagree	4	6.5		
	Total	62	100		

Table 5. *Wilcoxon signed-rank test for items 8 and 19*

Item – F2F	**M**	**SD**	**W**	**Z**	**p-value**
8) I am more willing to communicate in English in a smaller class (20 or fewer students) than a bigger class (more than 20 students) in a face-to-face class.	4.06	1.341	211.000	-1.33	.183
Item - online					
19) I am more willing to communicate in English in a smaller class (20 or fewer students) than a bigger class (more than 20 students) in an online class.	3.95	1.151			

Items 8 and 19 were additional items that were not included in the analysis of the entire instrument since they did not measure the level of WTC in English overall, but rather gave insight into the EFL English majors' WTC when it comes to class size. The analysis of these items showed that most students preferred to communicate in English in smaller classes (20 or fewer students) rather than bigger classes both in an F2F instructional setting (M=4.06, SD=1.341) and in an online instructional setting (M=3.95, SD=1.151). There also did not seem to be a significant difference between the two settings ($p>0.05$). This preference for smaller groups was also found in other studies (Al-Amrani & Harrington, 2020; Janeš, 2019; Pawlak et al., 2016; Zhou and Chen, 2020). Zhou and Chen (2020) found that students were more likely to stay silent in large groups than in small groups (10 to 20 people). The explanation the students gave was that the classroom atmosphere was more comfortable in small groups. Therefore, a more comfortable classroom atmosphere could explain the students' preference for smaller groups. It is also more likely that students will get to know each other better much more easily in smaller groups than in bigger groups, and according to Pawlak et al.'s (2016) findings, WTC is likely to be increased if students know each other.

Table 6. *Additional items 23, 24 and 25*

Item	**Sentiment**	**N**	**%**	**M**	**SD**
23) I would rather have my camera turned off when having to communicate in English in an online class.	Strongly agree	20	32.3	3.47	1.434
	Agree	15	24.2		
	Neutral	10	16.1		
	Disagree	8	12.9		
	Strongly disagree	9	14.5		
	Total	62	100		
24) I am more willing to communicate in English when my fellow students have their cameras turned on rather than turned off.	Strongly agree	19	30.6	3.34	1.470
	Agree	12	19.4		
	Neutral	13	21		
	Disagree	7	11.3		
	Strongly disagree	11	17.7		
	Total	62	100		
25) I am willing to communicate in English even when I am experiencing technical difficulties (e.g., unstable Internet connection, microphone problems etc.) in an online class.	Strongly agree	6	9.7	2.52	1.339
	Agree	9	14.5		
	Neutral	16	25.8		
	Disagree	11	17.7		
	Strongly disagree	20	32.3		
	Total	62	100		

Items 23, 24 and 25 were additional items that were not included in the analysis of the entire instrument and were only added to gain further insight into the students' WTC in English in an online setting. Item 23 showed that most students preferred to have their

cameras turned off when having to communicate in English in an online class, with 32.3% strongly agreeing and 24.2% agreeing. This finding is also supported by Waluyo and Wangdi's (2023) findings as well as Cunningham's (2011) observations. On the other hand, as seen from the results for item 24, students reported that they were more likely to be willing to communicate in English when the other students had their cameras turned on rather than off. This can be explained by the concept of social presence explained earlier. CMC has lower social presence than F2F communication due to the lack of nonverbal cues. However, using cameras allows students to see each other, and therefore, allows them to be able to receive some of the nonverbal cues which audio-only mode would not allow them to do. Item 25 showed that students were unlikely to be willing to communicate in English if they were experiencing technical difficulties such as having an unstable internet connection or problems with their microphones. This finding matches that of other studies that have found that poor internet connection and technical problems negatively impact students' WTC (Ardiansyah et al., 2020; Putri, 2023; Shcherbakova et al., 2023).

Table 7. *WTC in F2F and online instructional setting in different years of study*

Year of study	**N**	**Setting**	**M**	**SD**	**Paired t-test**	
					t-score	**p-value**
Undergraduate	14	F2F	3.62	0.985	1.19	.254
		online	3.36	1.085		
Graduate	48	F2F	3.54	0.838	4.44	<.001
		online	3.06	0.919		
4th year	16	F2F	3.68	0.808	3.87	.002
		online	3.03	0.980		
5th year	32	F2F	3.48	0.857	2.86	.007
		online	3.08	0.902		

To compare the difference in WTC between the F2F and online instructional setting between undergraduate and graduate students paired t-tests were used. The results showed that there was not a significant difference between undergraduate students' WTC in English between the two settings ($p>0.05$). On the other hand, graduate students did show significantly different levels of WTC in the two different settings ($p<0.001$). It should be noted that the majority of undergraduate students were third-year students (N=11); only two students were second-year students and only one student was a first-year student. Therefore, the results would maybe have differed had more first-year and second-year students been included. Graduate students (N=48) reported significantly higher WTC ($p<0.001$) in the F2F instructional setting even when the fourth-year and fifth-year students' responses were

analysed separately as can be seen in table 8. It is difficult to determine what was the potential difference between undergraduate and graduate students' responses in this case. One potential factor might be the age. Undergraduate students' mean age was 21.5, while graduate students' mean age was 24.48 (M=23.94 for fourth-year and M=24.75 for fifth-year students). Younger students may have been more willing to communicate in English in an online setting because they might have felt more comfortable in these environments than older students. This is supported by Lee and Lee's (2019) findings as they also found that the younger the students were, the more likely they were willing to communicate in online contexts. It is also worthwhile to mention that undergraduate students seemed to have higher WTC (M=3.62 – F2F; M=3.36 – online) than graduate students (M=3.54 – F2F; M=3.06 – online) in both settings. Therefore, it may be that younger students simply feel more comfortable and willing to communicate in English in general.

Table 8. *WTC in F2F and online instructional setting according to the other study group*

Other study group	**N**	**Setting**	**M**	**SD**	**Paired t-test**	
					t-score	**p-value**
Another language	37	F2F	3.60	0.881	3.46	.001
		online	3.17	1.048		
Other	25	F2F	3.50	0.857	2.72	.012
		online	3.07	0.823		

According to a paired t-test, both English majors whose other study group was another language (N=37) and those whose other study group was not a language (N=25) appeared to have significantly higher WTC ($p<0.05$) in an F2F instructional setting than in an online instructional setting. Therefore, it can be assumed that the other study group does not play a role in determining the potential difference between English majors' WTC in English in an F2F setting and an online setting.

Table 9. *WTC in F2F and online instructional setting with regards to gender*

Gender	**N**	**Setting**	**M**	**SD**	**Wilcoxon signed rank test**		
					W	**Z**	**p-value**
Male	11	F2F	4.03	0.625	62.000	-2.54	.011
		online	3.38	0.943			
Female	50	F2F	3.45	0.899	775.500	-3.27	.001
		online	3.06	0.963			

Since the two samples did not pass the normality test, the Wilcoxon signed-rank test was performed to compare male and female students' WTC in the two settings. The Wilcoxon signed-rank test showed that both male and female students perceived to have significantly higher WTC ($p<0.05$) in a traditional F2F instructional setting than in an online instructional setting. Therefore, based on these results, it appears that gender does not greatly affect the difference in the levels of students' WTC in English between the two settings. It should be noted, however, that the number of female participants (N=50) was greater than the number of male participants (N=11), so the difference in numbers could have potentially affected the results. The one student who selected their gender as 'other' was not included in calculations due to the insufficient sample size.

5 Limitations and further research

Although the results of this research study show that there is a significant difference between English language majors' willingness to communicate (WTC) in English in a face-to-face and online instructional setting, the limitations of this research study need to be taken into account. The first limitation is the number of participants. Since the number of participants was rather small the data received is not as comprehensive as it could be if the research study was conducted on a larger scale. Furthermore, the majority of the participants of the study were students in their fourth and fifth year of the study programme, so the results could have possibly differed had more undergraduate students been involved. Future research should aim to include a greater number of participants where both undergraduate and graduate students would be more equally represented. This study also did not focus on identifying any specific factors affecting WTC in these two settings. Therefore, future research could also focus on factors such as language anxiety, motivation, L2 self-confidence, classroom atmosphere and other factors affecting WTC in a foreign language and then compare the traditional instructional setting. Finally, this study was conducted with English language majors at the Faculty of Humanities and Social Sciences at the University of Zagreb in Croatia; therefore, the results of this study are not necessarily indicative of the WTC of EFL English language majors on a wider scale.

6 Conclusion

Willingness to communicate (WTC) has been an important part of foreign language learning and widely researched in the past few decades. The invention of the internet and

advancing information technology allowed for language learning to be conducted online. This new instructional setting and the new mode of communication have also been shown to affect language learners' WTC. The Covid-19 pandemic forced educational institutions worldwide to switch to running classes online. The change provided room to explore the potential differences that exist between the traditional face-to-face and online instructional settings. This research study aimed to discover the potential differences between EFL English majors' WTC in English in both the traditional face-to-face (F2F) as well as the online instructional setting. The results of the study showed that English majors reported statistically significantly higher WTC in the traditional F2F instructional setting than in the online instructional setting. However, it is important to point out that upon the separate analyses of the undergraduate and graduate students' WTC in English in both contexts it was found that there was not a significant difference between the undergraduates' levels of WTC in the two contexts. This prompts the need for further research with a greater number of undergraduate participants.

It is also important to note that this study was conducted with Croatian EFL English language major students. Alqarni's (2021) comparable study found that Saudi undergraduate EFL English majors' WTC was higher in online classes than in F2F classes, which is opposite to the findings in this study. Therefore, the regional and cultural context is a factor that needs to be taken into consideration when comparing these results with other comparable studies, as well as something that should be taken into account when conducting future studies.

This study also provides some insight into the students' preferences when it comes to using the camera during their online classes. More than 50% of the students agreed or strongly agreed that they would have preferred to keep their cameras off when having to communicate in English. In addition, 50% disagreed or strongly disagreed that they would have been willing to communicate in English if they had had technical problems such as an unstable internet connection or problems with their microphones. These findings point to some of the difficulties and differences that the online instructional setting poses when it comes to students' WTC in English that are not present in the traditional F2F instructional setting. Therefore, in an age where online learning is likely to continue to be one of the used modes of learning, it would be beneficial to find ways to improve students' learning experience in this instructional setting and to achieve this, it is important to further research the different factors affecting students' WTC in both the traditional and online instructional contexts.

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Sažetak

Spremnost na komunikaciju (SnK), koncept izvorno predstavljen u kasnom 20. stoljeću u kontekstu poučavanja i učenja prvog jezika (L1), s vremenom je postao naširoko istraživana tema u drugom jeziku (L2) kao i u poučavanju i učenju engleskog kao stranog jezika. SnK te razni čimbenici koji na nju utječu bili su većinom proučavani u tradicionalnoj nastavi licem u lice. Međutim, tijekom pandemije koronavirusa mnogo je obrazovnih ustanova diljem svijeta počelo održavati nastavu putem interneta. Ovo je bio slučaj i u Hrvatskoj. Nastava putem interneta čak i kada je sinkrona i poduprta videosnimkom razlikuje se od tradicionalne nastave licem u lice. Stoga se spremnost studenata na komunikaciju na stranom jeziku u obrazovnoj sredini na internetu može potencijalno razlikovati od one u tradicionalnoj obrazovnoj sredini. Cilj ovog istraživanja bio je otkriti postoji li razlika između spremnosti studenata anglistike na komunikaciju na engleskom jeziku u tradicionalnoj nastavi licem u lice i nastavi putem interneta. Sudionici ovog istraživanja bili su 62 studenta na preddiplomskom i diplomskom smjeru studija anglistike na Filozofskom fakultetu Sveučilišta u Zagrebu u Hrvatskoj. Primijenjena je kvantitativna metoda istraživanja u obliku upitnika putem interneta koji je bio podijeljen u grupama studenata anglistike na Facebooku i WhatsAppu. Rezultati istraživanja pokazali su da je na osnovi samoprocjene studenata anglistike njihova SnK viša u tradicionalnoj obrazovnoj sredini, licem u lice, nego u nastavi putem interneta. Međutim, pri odvojenoj analizi odgovora studenata na preddiplomskoj i diplomskoj razini studija, otkriveno je da ne postoji značajna razlika između SnK studenata na preddiplomskom smjeru u nastavi licem u lice i nastavi putem interneta. Samo SnK studenata na diplomskom smjeru je bila značajno viša u tradicionalnoj obrazovnoj sredini. Pored toga, ovo je istraživanje također otkrilo da je većina studenata radije držala kameru isključenu pri komunikaciji na engleskom jeziku, kao i da je većina radije komunicirala na engleskom jeziku u manjim skupinama neovisno o obrazovnoj sredini.

Ključne riječi: *spremnost na komunikaciju, EFL, online nastava, nastava licem u lice, visoko obrazovanje*

Appendix

Appendix – Questionnaire for WTC in a face-to-face and online instructional setting

Items for WTC in a face-to-face instructional setting:

1) I am willing to speak English in a face-to-face class.
2) I am more willing to communicate in Croatian than in English when there is an opportunity to do so, in a face-to-face class.
3) I am willing to volunteer answers in English in a face-to-face class.
4) I prefer to communicate in English in a face-to-face class only when I am asked to speak.
5) I am willing to participate in a class discussion in English in a face-to-face class when I am familiar with the topic.
6) I am willing to participate in a class discussion in English in a face-to-face class even when I am NOT familiar with the topic.
7) I am willing to ask the teacher for clarification in English if I didn't understand something in a face-to-face class.
9) I am willing to volunteer an answer in English even when I see that the other students have raised their hands in a face-to-face class.
10) I am willing to participate in a discussion in English in a face-to-face class when I am interested in the given topic.
11) I am willing give a presentation in English in front of my fellow students in a face-to-face class.

Items for WTC in an online instructional setting:

12) I am willing to speak English in an online class.
13) I am more willing to communicate in Croatian than in English when there is an opportunity to do so, in an online class.
14) I am willing to volunteer answers in English in an online class.
15) I prefer to communicate in English in an online class only when I am asked to speak.
16) I am willing to participate in a class discussion in English in an online class when I am 1 familiar with the topic.

17) I am willing to participate in a class discussion in English in an online class even when I am NOT familiar with the topic.
18) I am willing to ask the teacher for clarification in English if I didn't understand something in an online class.
20) I am willing to volunteer an answer in English even when I see that the other students have turned on their microphones in an online class.
21) I am willing to participate in a discussion in English in an online class when I am interested in the given topic.
22) I am willing to give a presentation in English in front of my fellow students in an online class.

Additional items for WTC:

8) I am more willing to communicate in English in a smaller class (20 or fewer students) than a bigger class (more than 20 students) in a face-to-face class.
19) I am more willing to communicate in English in a smaller class (20 or fewer students) than a bigger class (more than 20 students) in an online class.
23) I would rather have my camera turned off when having to communicate in English in an online class.
24) I am more willing to communicate in English when my fellow students have their cameras turned on rather than turned off.
25) I am willing to communicate in English even when I am experiencing technical difficulties (e.g., unstable Internet connection, microphone problems etc.) in an online class.