


Decreasing EFL learners' intercultural communicative anxiety levels through a blended environment

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Abstract

Language classes should focus not only on linguistic skills but also on developing essential cultural and intercultural competencies, as fostering intercultural communicative competence has become a key objective in modern foreign language education. In this context, blended learning environments that combine face-to-face classroom practices with technology-enhanced activities offer promising opportunities to reduce learners' intercultural communication anxiety. This study aimed to examine the effectiveness of blended intercultural instruction on English as a Foreign Language (EFL) learners' intercultural communicative anxiety levels. A two-group quasi-experimental research design was employed, involving an in-class discussion group and an online discussion group. Data were gathered through a background questionnaire and the Intercultural Communicative Anxiety Scale (ICAN). Findings revealed that students in the online discussion group experienced a significantly greater reduction in intercultural communicative anxiety compared to those in the in-class discussion group. These results suggest that well-structured blended environments, which provide supportive and low-pressure contexts for interaction, can be effective in lowering anxiety and enhancing intercultural learning. Implications for language instruction and curriculum design are also discussed.

Keywords

English language teaching, intercultural communication, anxiety, blended learning.

Submission date
01.12.2024

Acceptance date
21.06.2025

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<https://doi.org/10.47216/literacytrek.1594526>

Introduction

In recent decades, a significant shift in language teaching has been the recognition of culture as a core element of language learning and instruction (Kramsch, 1995). Teaching culture, often referred to as the "fifth skill," enhances the overall learning process by fostering both linguistic and intercultural development (Vernier et al., 2008). Consequently, the development of intercultural communicative competence has

emerged as a central objective in foreign language education (Byram, 1997). To achieve fluency in a target language, students must go beyond mastering vocabulary and grammar to understand the sociocultural norms that native speakers observe in communication (Neff & Rucynski, 2013). The relatively new intercultural approach seeks to equip learners with the skills necessary to engage effectively with individuals from diverse cultural and linguistic backgrounds.

For holistic cognitive and emotional growth, educational systems must be sensitive to cultural values and experiences. Learning-teaching interactions should be designed to reflect the cultural and social diversity of the educational context. The concept of culturally responsive pedagogy highlights the importance of fostering inclusive learning environments that support students from diverse beliefs, ethnicities, and social groups (Sleeter, 2011).

Anxiety, a key affective factor in language learning, is defined as a specific set of behaviors, beliefs, and self-perceptions triggered by the demands of the learning process (Horwitz et al., 1986). It manifests as feelings of nervousness and stress, often accompanied by a strong desire to eliminate the source of anxiety (MacIntyre, 2017). Intercultural communication anxiety, in particular, can impede learners' ability to engage effectively in intercultural exchanges. Blended learning environments that combine face-to-face instruction with technological tools (Sharma & Barrett, 2007) offer promising opportunities to mitigate such anxiety by facilitating more flexible and supportive learning experiences. Internet-mediated communication (IMC) further enhances these opportunities by enabling access to diverse communities that use the target language (Sarıçoban & Balaman, 2012).

In Turkey, which falls within Kachru's (1990) expanding circle, English as a Foreign Language (EFL) learners face limited opportunities for intercultural communication in English. These constraints contribute to high levels of foreign language anxiety (Aydin, 2018) and intercultural communication anxiety (Özdemir, 2017), both of which hinder effective communication. Additionally, the scarcity of authentic intercultural interactions limits the development of critical intercultural skills, further exacerbating students' anxiety levels. In contexts where intercultural opportunities are rare (Hsu & Beasley, 2019), blended online intercultural activities

offer valuable alternatives. These activities can facilitate meaningful intercultural interactions, providing learners with opportunities to practice and improve essential intercultural skills that are prerequisites for effective communication.

This study investigates the potential of blended learning environments to address the intercultural communicative anxiety of EFL learners, offering insights into how technology-mediated strategies can support learners in overcoming communication barriers and enhancing intercultural competence.

Theoretical Background

Intercultural communicative competence (ICC) refers to the ability to adapt effectively to intercultural contexts by integrating individual, social, communicative, and strategic dimensions. It is rooted in the concept of communicative competence, developed by Hymes (1972), which encompasses linguistic, paralinguistic, sociolinguistic, and non-verbal dimensions of effective communication within a cultural context (Fantini, 2020). For decades, communicative competence has served as a foundational framework in language teaching. Intercultural communicative competence, however, extends this framework by focusing specifically on cross-cultural interactions and is considered a subdimension of communicative competence (Deardorff, 2006).

Gudykunst (2002) defines intercultural communication as the exchange of information between individuals from different cultural backgrounds. Similarly, Chen and Starosta (1998) conceptualize ICC as the ability to navigate cultural differences successfully. They identify three critical dimensions: intercultural awareness (cognitive processes), intercultural sensitivity (emotional processes), and intercultural adroitness (attitudes and behaviors). Byram (1997) further expands on this framework, identifying five core components of intercultural competence as *attitudes (savoir-être)* that means demonstrating openness, curiosity, and impartiality toward other cultures, *knowledge (savoirs)* that is understanding the customs, practices, and behaviors of other social groups, *skills of interpreting and relating (savoir comprendre)* that means the ability to interpret cultural artifacts or events and relate them to one's cultural context, *skills of discovery and interaction (savoir apprendre/faire)* which is acquiring new cultural

knowledge and applying it in interactions, and *critical cultural awareness* (*savoir s'engager*) that is critically evaluating cultural practices and perspectives using objective criteria.

Anxiety is a critical affective factor in language learning and has been widely studied in the field (Aydin, 2018). Horwitz et al. (1986) define anxiety in this context as a set of beliefs, behaviors, and self-perceptions that emerge naturally during the learning process. Anxiety is typically categorized into three types: 1. Trait anxiety: A stable characteristic inherent to an individual. 2. State anxiety: A temporary emotional response triggered by specific situations (Spielberger, 1972). 3. Situation-specific anxiety: Fear tied to specific scenarios, such as public speaking or exams (MacIntyre & Gardner, 1991). Anxiety can also be classified as facilitating anxiety, which motivates learners to perform better (Scovel, 1978), or debilitating anxiety, which impairs performance by fostering avoidance behaviors (Phillips, 1992). Creating learning environments that promote a balance by encouraging the facilitating anxiety while minimizing the debilitating anxiety and thus positively impacting language acquisition.

Despite the importance of ICC in language education, learners often experience intercultural communication anxiety, a psychological barrier that hinders effective intercultural interaction. This anxiety is defined as the unease experienced when communicating with individuals from different cultures or countries (Neuliep & McCroskey, 1997). Gudykunst and Kim (2003) argue that unfamiliar cultural contexts can evoke anxiety due to the perception of others as "strangers." Such anxiety can manifest as avoidance behaviors, often stemming from language deficiencies or cultural unfamiliarity, ultimately impairing communication. Language learners with high levels of intercultural communication anxiety are less likely to engage in meaningful interactions and may struggle to develop their communicative competence.

Blended learning combines traditional classroom instruction with digital tools to create flexible, engaging, and effective learning environments (Sharma & Barrett, 2007). This approach is particularly beneficial in contexts where opportunities for authentic intercultural interactions are limited (Sarıçoban & Balaman, 2012). By leveraging technology, blended learning facilitates interaction with diverse cultural contexts, potentially reducing intercultural communication anxiety. Coryell and Clark

(2009) found that participants in an online intercultural language course expressed enthusiasm in overcoming anxiety associated with previous face-to-face and online interactions. Supporting this, Ku and Chen (2015) reported that students involved in intercultural wiki-based learning activities experienced significant reductions in both social and foreign language anxiety. Similarly, Lee and Song (2019) demonstrated that telecollaboration produced improvements in intercultural communication competence, both affective and behavioral, comparable to those achieved through study abroad experiences. Adding to this body of research, Khukhlaev and Bratkina (2021) emphasized that anxiety and uncertainty were directly linked to the effectiveness of intercultural communication, further underlining the importance of addressing emotional factors in such contexts.

Several models guide the implementation of blended learning environments. For instance, Sharpe et al. (2006) emphasize the blending of time (synchronous vs. asynchronous activities), environment (classroom vs. home), pedagogy (collaborative vs. autonomous learning), and technology (wikis, blogs, or discussion forums). Similarly, Graham (2006) categorizes blending at four levels: activity, course, program, and institution. Other models, such as those proposed by Horn and Staker (2011), include the face-to-face driver model, rotation model, flex model, online lab model, self-blend model, and online driver model. These models vary in the degree of integration between online and traditional components.

Sharma and Sarkar (2020) explored students' perceptions of blended learning's effectiveness in reducing anxiety. Using a survey model, the study found that most students believed blended learning was beneficial in lowering anxiety levels. Similarly, Bai et al. (2020) investigated college students' attitudes toward autonomous learning in a blended setting. They discovered that although learning anxiety is negatively related to learning motivation, both learning anxiety and self-efficacy indirectly influence autonomous learning behavior through learning motivation in blended environments. Furthermore, Alghofaili (2022) reported that blended learning played a significant role in enhancing the impact of intrinsic motivation on reducing language anxiety in English.

Purpose of the study

Despite the growing importance of intercultural instruction, limited research has examined the impact of blended learning environments on the intercultural communication anxiety levels of EFL learners, particularly in the Turkish context. This study seeks to fill this gap by examining how blended intercultural instruction influences EFL learners' intercultural communication anxiety. It aims to explore whether blended learning environments are significantly more effective than traditional settings in reducing anxiety levels. By bearing the aforementioned concerns in mind, this study seeks to answer the following research question.

Does the use of blended intercultural activities affect the level of intercultural communication anxiety among EFL learners?

By exploring this question, the study aims to advance the field of language education by shedding light on how blended learning can enhance intercultural competence and reduce communication anxiety.

Methodology

Research design

This study employed a quasi-experimental research design with two groups to investigate the influence of blended instruction, developed based on the Intercultural Communicative Competence (ICC) model, on the intercultural communicative anxiety (ICA) levels of English as a Foreign Language (EFL) learners. Quasi-experimental research designs rely on naturally occurring differences in the key independent variable, aiming to replicate experimental conditions by comparing groups where some individuals are exposed to a treatment and others are not, though this exposure is not assigned randomly (Gopalan et al., 2020). This design was chosen for its suitability in examining cause-and-effect relationships in naturally occurring settings, where random assignment to experimental and control groups might not be feasible or ethical. Specifically, a quasi-experimental approach allowed us to explore the impact of the blended intercultural instruction while working within the existing structure of EFL

classrooms. This aligns with our primary objective of assessing the effect of this specific instructional approach on ICA levels.

The methodology involved quantitative data collection techniques. Quantitative data were gathered through the Intercultural Communicative Anxiety (ICAN) scale, an instrument developed by the researchers. This scale was administered to both groups before and after the intervention to measure changes in ICA levels. In addition, a background questionnaire was used to collect demographic information such as participants' age, gender, and Foreign Language Exam (FLE) scores, as well as their prior intercultural communication experiences. This allowed for a comprehensive understanding of the participants' profiles and potential confounding variables.

The study was conducted during the fall semester of the 2022-2023 academic year. After the initial data collection, students were randomly assigned to either online or in-class discussion groups within the framework of the blended instruction. The instructional phase, which incorporated the ICC model and lasted for five weeks, then commenced. Following this intervention, the Intercultural Anxiety Scale (ISS) was re-administered to evaluate the impact of the blended instruction on participants' intercultural anxiety levels. The pre- and post-intervention scores from the ICAN and ISS scales were analyzed using appropriate statistical methods to determine the effectiveness of the blended instruction. Further details on the specific statistical analyses employed will be provided in the Data Analysis section.

Setting and participants

The participants were freshman pre-service English Language Teaching (ELT) students enrolled in the English Language Teaching Department at a state university during the spring semester of the 2022-2023 academic year. A total of 56 students participated in the study. The participants had a mean age of 19.2 years, with ages ranging from 18 to 29. Of the participants, 38 (67.9%) were female, and 18 (32.1%) were male. The mean FLE score was 68.7, with scores ranging from 59 to 78. The FLE, administered by the Student Selection and Placement Center, consisted of 80 multiple-choice questions assessing grammar, vocabulary, and reading comprehension skills. Regarding intercultural communication experiences, 51 (91.1%) participants stated that they had interacted with at least one foreign person in English, while 5 (8.9%) had not.

Procedure

Participants were provided with information about the study's objectives, significance, and methodology before its commencement. Relevant content on intercultural communication and its assessment was delivered in classroom sessions. Ethical approval was obtained from the university's Ethical Review Board, and participants were informed of the study's ethical guidelines, ensuring their privacy and confirming that the study posed no psychological, social, or political risks. Additionally, participants signed a consent form indicating their voluntary participation in the study. The study followed these steps: (1) administration of the pre-test, (2) random assignment of participants into in-class or online discussion groups, (3) five-week instruction phase, and (4) post-test administration.

Instruction

Both groups participated in traditional in-class intercultural instruction. On the other hand, participants in the in-class discussion group engaged in face-to-face discussions within the classroom, while those in the online discussion group participated in discussions via Zoom with students from various countries, including Taiwan, Indonesia, Mexico, Poland, and Turkey. Each online session lasted at least 40 minutes. Online discussion sessions were organized by the instructor, considering the availability of participants from other countries. Consequently, a fully flexible blended learning approach was not feasible. The summary of the instruction process is presented in Table 1.

Table 1.

Intercultural Instruction Aiming to Decrease Intercultural Anxiety Levels

	Steps	Discussion Topics	Objectives	Based on
Week 1	-Giving theoretical information about the concept of culture. -Forming small groups to complete sentences written by the teacher related to culture. -Sharing their ideas with the class	Festivals in Türkiye and around the world	To enhance understanding of the concept of culture and foster fundamental cultural awareness.	“attitudes (savoir ^etre)”
Week 2	-Providing theoretical insights into cultural knowledge, identity, gender	Foods in Türkiye and worldwide	to increase the knowledge related to the culture and	knowledge (savoirs)”

	roles, individualistic versus collectivistic cultures, and variations in power distance across cultures.		develop cultural awareness	
Week 3	-Giving theoretical information about the relationship between culture, language, and thought, different speech communities, differences between spoken and written language, and understanding language in context.	Famous quotes belonging to famous people in both Türkiye and worldwide	to increase students' interpretational and relational skills of IC	"skills of interpreting and relating (savoir comprendre)",
Week 4	-Giving theoretical information related to the basics of nonverbal communication, similarities and differences between verbal and nonverbal communication, the definition of physical time and space across cultures, and the concept of high context/low context communication.	Gestures and body language in the Turkish language and other languages	to increase learners' discovery and interactional abilities related to IC.	"skills of discovery and interaction (savoir apprendre/faire)"
Week 5	-Giving theoretical information about the concept of culture shock, the stages of culture shock, and the concept of stereotyping. -Matching activity about stereotyping.	Stereotypical images belonging to Turkish people and others	to increase students' critical cultural and intercultural awareness levels	"critical cultural awareness (savoir s'engager)"

Data collection tools

The study employed the Intercultural Communicative Anxiety Scale for EFL learners (ICAN), developed by the researchers. The scale demonstrated high reliability, with a Cronbach's alpha of 0.92. The ICAN scale consists of 16 items categorized into three factors: "Communicative Difficulty" (7 items), "Communicative Willingness" (5 items), and "Communicative Uncertainty" (4 items). Participants rated items on a five-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5). Items 8, 9, 10, 11, and 12, which assess communicative willingness, were reverse-coded. The total score on the scale can range from 16 to 80, with higher scores indicating greater levels of intercultural communicative anxiety.

Data analysis

The quantitative data were computed utilizing the Statistical Package for Social Sciences (SPSS) software. As the sample size in each group was less than 30, non-parametric tests were applied (Saka, 2005). The Wilcoxon signed-rank test was used to analyze within-group differences, while the Mann-Whitney U test was employed to compare differences between groups.

Results

The pre-test results regarding group differences in intercultural anxiety levels among EFL learners were initially analyzed. There was no statistically significant difference between the in-class discussion group ($M = 60.14$, $SD = 8.51$) and the online discussion group ($M = 62.36$, $SD = 8.30$) in terms of the total intercultural communicative anxiety scores at the pre-test stage ($U = 331$, $p > .05$). A detailed analysis of the individual items revealed no statistically significant differences in the Intercultural Communicative Difficulty dimension, with no difference between the in-class discussion group ($M = 26.54$, $SD = 4.44$) and the online discussion group ($M = 28.29$, $SD = 3.79$) in terms of intercultural communicative difficulty at the pre-test ($U = 304$, $p > .05$). Similarly, no significant differences were found between the two groups in terms of the Intercultural Communicative Willingness construct (in-class discussion group: $M = 16.79$, $SD = 2.58$; online discussion group: $M = 17.03$, $SD = 2.59$; $U = 696$, $p > .05$) or the Intercultural Communicative Uncertainty factor (in-class discussion group: $M = 16.82$, $SD = 2.72$; online discussion group: $M = 17.04$, $SD = 2.53$; $U = 377$, $p > .05$).

The pre- and post-test ICAN scores for the online discussion group were then analyzed. A significant decrease was found in the Intercultural Communicative Difficulty construct, with the pre-test score ($M = 28.29$, $SD = 3.77$) decreasing to the post-test score ($M = 20.46$, $SD = 3.33$), which was statistically significant ($Z = -4.274$, $p < .001$). Similarly, the Intercultural Communicative Willingness construct showed a sharp decrease from the pre-test ($M = 17.04$, $SD = 2.59$) to the post-test ($M = 11.71$, $SD = 3.27$), which was also statistically significant ($Z = -1.541$, $p < .001$). A significant decrease was also observed in the Intercultural Communicative Uncertainty construct, with the pre-test score ($M = 17.04$, $SD = 2.53$) decreasing to the post-test score ($M = 13.29$, $SD = 3.45$). However, this change did not reach statistical significance ($Z = -1.223$, $p > .05$). Finally, the total scores on the Intercultural Communicative Anxiety

scale showed a significant decrease from the pre-test ($M = 60.14$, $SD = 8.50$) to the post-test ($M = 57.96$, $SD = 10.79$) ($Z = -3.613$, $p < .001$). In conclusion, the intercultural anxiety levels of EFL learners in the online discussion group significantly decreased as a result of the intercultural instruction.

Table 2.

Wilcoxon Signed Rank Test results of the online discussion group for ICANS

Constructs	Items	Z	Sig	Negative Ranks	Positive Ranks	Ties	Total
Intercultural Communicative Difficulty	8,9,10,11,12,13, 16	-4.274	.00	25 ^a	3 ^b	0 ^c	28
Intercultural Communicative Willingness	1,2,3,7,14	-3.956	.00	23 ^a	3 ^b	2 ^c	28
Intercultural Communicative Uncertainty	4,5,6,15	-3.613	.00	21 ^a	5 ^b	2 ^c	28
Intercultural Communicative Anxiety Total		-4.259	.00	25 ^a	3 ^b	0 ^c	28

Note: ^aPost < Pre; ^bPost > Pre; ^cPost = Pre.

Post-test results regarding group differences in intercultural anxiety levels among EFL learners were analyzed using the Mann-Whitney U test. As shown in Table 3, a statistically significant difference was found between the in-class discussion group ($M = 57.96$, $SD = 10.79$) and the online discussion group ($M = 46.36$, $SD = 7.70$) in terms of the total intercultural communicative anxiety post-test scores ($U = 145$, $p < .001$). A more detailed analysis of the individual items revealed statistically significant differences in the Intercultural Communicative Difficulty dimension, with the in-class discussion group ($M = 26.11$, $SD = 5.12$) scoring higher than the online discussion group ($M = 20.46$, $SD = 3.33$) at the post-test ($U = 153$, $p < .001$). Similarly, a statistically significant difference was found in the Intercultural Communicative Willingness construct, with the in-class discussion group ($M = 15.57$, $SD = 3.75$) showing higher scores than the online discussion group ($M = 11.71$, $SD = 3.28$) at the post-test ($U = 177$, $p < .001$). Lastly, a statistically significant difference was observed in the Intercultural Communicative Uncertainty factor, with the in-class discussion group (M

= 16.29, SD = 3.01) scoring higher than the online discussion group (M = 13.29, SD = 3.45) at the post-test ($U = 203$, $p < .001$).

Table 3.

Post-test Mann-Whitney U results of ICANS

Constructs	Items	<i>U</i>	Sig	Mean (Online discussion Group)	Ranks	Mean (In-class discussion Group)	Ranks	Total
Intercultural Communicative Difficulty	8,9,10,11,12,13,16	152.50	.00	19.95		37.05		56
Intercultural Communicative Willingness	1,2,3,7,14	176.50	.00	20.80		36.20		56
Intercultural Communicative Uncertainty	4,5,6,15	202.50	.00	21.73		35.27		56
Intercultural Communicative Anxiety Total		144.50	.00	19.66		37.34		56

Discussions and Conclusions

This study aimed to investigate the effectiveness of blended activities designed according to Byram's (1997) Intercultural Communicative Competence (ICC) Framework on reducing intercultural anxiety levels among EFL learners. The research question addressed whether blended intercultural instruction would affect EFL learners' intercultural anxiety levels. To assess this, pre-test and post-test results were analyzed for both the in-class and online discussion groups. In the in-class discussion group, the results indicated a slight reduction in intercultural communicative anxiety across the dimensions of Intercultural Communicative Difficulty, Intercultural Communicative Uncertainty, and the overall Intercultural Communicative Anxiety scale. Conversely, there was a slight increase in the Intercultural Communicative Willingness construct, suggesting that in-class activities led to a minimal reduction in anxiety levels. However, the results from the online discussion group, which participated in the same in-class

instruction but engaged in online discussions with participants from other countries, demonstrated more significant improvements in reducing intercultural anxiety. This group exhibited substantial gains, with reductions in communicative difficulty, increased willingness to communicate, decreased intercultural uncertainty, and, overall, a significant reduction in intercultural anxiety.

These findings align with previous research, such as Coryell and Clark (2009), who found that participants in an online intercultural language course showed enthusiasm in overcoming anxiety linked to previous face-to-face and online interactions. Ku and Chen (2015) also found that students engaging in intercultural wiki-based learning activities significantly reduced their social anxiety and foreign language anxiety levels. Similarly, Lee and Song (2019) discovered that telecollaboration, as opposed to study abroad, led to comparable improvements in intercultural communication competence, including affective and behavioral factors. Khukhlaev and Bratkina (2021) further highlighted that anxiety and uncertainty were directly related to the effectiveness of intercultural communication.

A primary motivation for conducting this study was the limited opportunities pre-service EFL teachers had for intercultural communication in the target language. These future educators will be tasked with teaching students not only the language but also the cultural dimensions associated with it. Therefore, integrating technology into language classrooms is essential. The findings suggest that blended instructional methods can be effectively incorporated into Foreign Language Education (FLE) curricula, providing a meaningful way to address both language and cultural education.

Several practical implications emerge from these findings. First, providing language learners with structured opportunities to communicate with individuals from diverse cultural backgrounds can significantly enhance their intercultural competence and reduce anxiety. For example, incorporating virtual exchange programs or telecollaborative projects into the curriculum where learners interact with peers from other countries through guided tasks has been shown to foster cultural awareness and improve language skills (Çalikoğlu et al., 2025).

Second, the integration of online tools such as discussion forums, video conferencing platforms, and collaborative writing tools (e.g., wikis or shared

documents) into language classes can facilitate meaningful intercultural interaction. These tools should be purposefully implemented through carefully designed activities that promote reflection, critical thinking, and guided dialogue, ensuring that learners engage in deeper intercultural exchanges rather than superficial conversation.

Third, encouraging participation in extracurricular activities such as cultural clubs, international student events, and online intercultural workshops can provide informal yet impactful settings for learners to apply their language skills and develop intercultural competence. For instance, mentorship programs pairing local and international students or participating in intercultural simulation games can help bridge cultural gaps and build confidence in communication.

Lastly, a more nuanced understanding of learners' sociological and psychological profiles, including factors such as cultural background, personality traits, and anxiety levels, is essential for designing effective intercultural communication instruction. This exploration could be conducted through pre-course surveys, interviews, or reflective journals, which would allow educators to tailor content and strategies to meet diverse learner needs more effectively.

Given that this study used a quasi-experimental design with two groups, future research should explore different research designs that incorporate various data collection and analysis techniques. Additionally, while this study applied Byram's (1997) intercultural model, other models of intercultural communicative competence should be explored in future studies. Furthermore, this research focused on a blended approach that incorporated the Zoom application. Future studies might investigate the potential of other web tools to support intercultural instruction. Finally, the relationship between demographic variables such as age, gender, proficiency levels, and intercultural experiences should be further explored in studies involving larger participant samples.

Ethics Committee Permission Information

This research study was conducted with the Research Ethics Committee approval of Canakkale Onsekiz Mart University, dated 20.11.2019 and numbered 2019/72.

Conflict of Interest

All authors declare that they have no conflicts of interest.

Acknowledgment

This study is a part of the first author's PhD dissertation titled "*An Investigation of EFL Learners' Intercultural Communicative Competence in a Blended Learning Environment*" and submitted to the Graduate School of Çanakkale Onsekiz Mart University, Türkiye. The second author is the supervisor of the first author.

References

- Alghofaili, S. (2022). The role of blended learning on moderating self-motivation to mitigate foreign language anxiety among EFL students. *World Journal of English Language*, 12(8), 287-295. <https://doi.org/10.5430/wjel.v12n8p287>
- Aydin, S. (2018). Technology and foreign language anxiety: Implications for practice and future research. *Journal of Language and Linguistic Studies*, 14(2), 193-211.
- Bai, X., Wang, X., Wang, J., Tian, J., & Ding, Q. (2020, August). College students' autonomous learning behavior in blended learning: Learning motivation, self-efficacy, and learning anxiety. *2020 International Symposium on Educational Technology (ISET)* (pp. 155-158). IEEE. https://ieeexplore.ieee.org/abstract/document/9215481?casa_token=IVhFcMyFBfQAAAAA:1iq8GZPZWYNB5id308eNM8DydKwnTG15erNFIomaGT-wbQDzxmIcEDpP3dXDoyEQJxmojROaKVY
- Byram, M. (1997). *Teaching and assessing intercultural communicative competence*. Multilingual Matters.
- Çalikoğlu, A., Bulut-Sahin, B., & Aşık, A. (2025). Virtual exchange as a mode of internationalization at a distance: Experiences from Türkiye. *British Journal of Educational Technology*, 56(2), 909-926. <https://doi.org/10.1111/bjet.13546>
- Chen, G.-M. & Starosta, W. J. (1998). *Foundations of intercultural communication*. Allyn & Bacon

- Coryell, J. E., & Clark, M. C. (2009). One right way, intercultural participation, and language learning anxiety: A qualitative analysis of adult online heritage and nonheritage language learners. *Foreign Language Annals*, 42(3), 483-504.
<https://doi.org/10.1111/j.1944-9720.2009.01037.x>
- Deardorff, D. K. (2004). *The identification and assessment of intercultural competence as a student outcome of international education at institutions of higher education in the United States* [Unpublished Dissertation]. North Carolina State University, Raleigh
- Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*, 10(3), 241-266 <https://doi.org/10.1177/1028315306287002>
- Fantini, A. E. (2020). Reconceptualizing intercultural communicative competence: A multinational perspective. *Research in Comparative and International Education*, 15(1), 52-61. <https://doi.org/10.1177/1745499920901948>
- Gopalan, M., Rosinger, K., & Ahn, J. B. (2020). Use of quasi-experimental research designs in education research: Growth, promise, and challenges. *Review of Research in Education*, 44(1), 218-243.
<https://doi.org/10.3102/0091732X20903302>
- Graham, C. R. (2006). Blended learning systems: Definition, current trends and future directions. In C. J. Bonk & C. R. Graham (Eds.), *The Handbook of Blended Learning: Global perspectives, local designs*. (pp. 3–21). Pfeiffer.
- Gudykunst, W. B. (2002). Intercultural communication theories. In W. B. Gudykunst & B. Mody (Eds.), *Handbook of International and Intercultural Communication* (pp. 183-206). Sage.
- Gudykunst, W. G., & Kim, Y. Y. (2003). *Communicating with strangers: An approach to intercultural communication*. McGraw-Hill.
- Horn, M. B., & Staker, H. (2011). *The rise of K-12 blended learning*. Christensen Institute. <http://www.christenseninstitute.org/wp-content/uploads/2013/04/The-rise-of-K-12-blended-learning.pdf>

- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-132.
<https://doi.org/10.1111/j.1540-4781.1986.tb05256.x>
- Hsu, S. Y. S., & Beasley, R. E. (2019). The effects of international email and Skype interactions on computer-mediated communication perceptions and attitudes and intercultural competence in Taiwanese students. *Australasian Journal of Educational Technology*, 35(1), 149–162. <https://doi.org/10.14742/ajet.4209>
- Hymes, D. (1972). On Communicative Competence. In Pride, J. B. & Holmes, Janet (Eds.), *Sociolinguistics: Selected Readings*. (pp. 269–293). Penguin.
- Khukhlaev, O. E., & Bratkina, M. A. (2021). Anxiety and uncertainty in intercultural communication: An experimental study. *Social Psychology*, 18(4), 78-90.
- Kramsch, C. (1995). The cultural component of language teaching. *Language, Culture and Curriculum*, 8(2), 83-92. <https://doi.org/10.1080/07908319509525192>
- Ku, D. T., & Chen, N. L. (2015). Influence of wiki participation on transnational collaboration learning anxiety in middle school students: A case study of Google wiki. *Internet Research*, 25(5), 794-810. <https://doi.org/10.1108/IntR-05-2014-0142>
- Lee, J., & Song, J. (2019). The impact of group composition and task design on foreign language learners' interactions in mobile-based intercultural exchanges. *ReCALL*, 32(1), 63–84. <https://doi.org/10.1017/S0958344019000119>
- MacIntyre, P. D., & Gardner, R. C. (1991). Language anxiety: Its relationship to other anxieties and to processing in native and second languages. *Language Learning*, 41(4), 513-534. <https://doi.org/10.1111/j.1467-1770.1991.tb00691.x>
- MacIntyre, P. D. (2017). An overview of language anxiety research and trends in its development. In Gkonou C., Daubney M. & Dewaele J.-M. (Eds.). *New Insights into Language Anxiety: Theory, Research and Educational Implications*. (pp. 11-30). Multilingual Matters. <https://doi.org/10.21832/9781783097722-003>
- Neff, P., & Rucynski Jr, J. (2013). Tasks for integrating language and culture teaching. *English Teaching Forum*, 51(2), 12-23.

- Neuliep, J. W., & McCroskey, J. C. (1997). The development of intercultural and interethnic communication apprehension scales. *Communication Research Reports*, 14(2), 145-156. <https://doi.org/10.1080/08824099709388656>
- Phillips, E. M. (1992). The effects of language anxiety on students' oral test performance and attitudes. *The Modern Language Journal*, 76(1), 14-26. <https://doi.org/10.1111/j.1540-4781.1992.tb02573.x>
- Kachru, B. B. (1990). World Englishes and applied linguistics. *World Englishes*, 9(1), 3-20. <https://doi.org/10.1111/j.1467-971X.1990.tb00683.x>
- Özdemir, E. (2017). Promoting EFL learners' intercultural communication effectiveness: A focus on Facebook. *Computer Assisted Language Learning*, 30(6), 510-528. <https://doi.org/10.1080/09588221.2017.1325907>
- Saka, O. (2005). Research phases IV: Evaluation and selection of hypothesis tests. *Turkish Journal of Emergency Medicine*, 5(1), 43-47
- Sarıçoban, A., & Balaman, U. (2012). Technology development in foreign language education. In Sarıçoban A. & Taviş Z.M. (Ed.), *Instructional technologies and material design in foreign language teaching*. (pp. 97-114). Anı Publishing.
- Scovel, T. (1978). The effect of affect on foreign language learning: A review of the anxiety research". *Language learning*, 28(1), 129-142. <https://doi.org/10.1111/j.1467-1770.1978.tb00309.x>
- Sharma, P., & Barrett, B. (2007). *Blended learning*. Macmillan
- Sharma, S., & Sarkar, P. (2020). Efficiency of blended learning in reduction of anxiety: With special reference to high school students. *International Journal of Grid and Distributed Computing*, 13(1), 277-285.
- Sharpe, R., Benfield, G., Roberts, G., & Francis, R. (2006). The undergraduate experience of blended e-learning: A review of UK literature and practice. *The Higher Education Academy*, 4(2), 24-250.
- Sleeter, C. E. (2011). An agenda to strengthen culturally responsive pedagogy. *English Teaching: Practice and Critique*, 10(2), 7-23.

- Spielberger C. D. (1972). Anxiety as an emotional state". In Spielberger C. D. (Ed.), *Anxiety: Current trends in theory and research*. (pp. 21–49). Academic Press.
- Vernier, S., Barbuzza, S., Giusti, S. D., & Moral, G. D. (2008). The five language skills in the EFL classroom. *Nueva Revista de Lenguas Extranjeras*, 10(1), 263-291.