Foreign Language Anxiety and Individualism-Collectivism Culture: A Top-Down Approach for a Country/Regional-Level Analysis

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Abstract
This study explored how foreign language anxiety in class relates to individualism-collectivism culture. Additionally, to serve as a guideline for foreign language anxiety assessment, the study determined a normative score of the Foreign Language Classroom Anxiety Scale (FLCAS), which is well known and frequently applied for foreign language anxiety examination. After conducting a literature search identifying 106 studies in 35 countries/regions, a top-down approach was used to analyze aggregate FLCAS mean scores by country/region and examine relationships between the FLCAS score and the rating of individualism-collectivism cultural dimension from Hofstede’s cultural index. This relationship was significant for higher education institutions but insignificant for all institutions and for elementary to high schools. The FLCAS normative score was 94.82, slightly lower than the theoretical midpoint of 99. The findings have implications for educators, since university/college/graduate students in countries/regions with stronger collectivism had higher foreign language anxiety.

Keywords
foreign language anxiety, individualism-collectivism, top-down approach, normative score, foreign language classroom anxiety scale

Introduction
Second/foreign language anxiety (FLA) is common in classrooms (Dewaele & MacIntyre, 2014; MacIntyre, 2017). A recent systematic review of intervention studies to reduce students’ FLA included 17 countries/regions as research locations for 40 studies (Toyama & Yamazaki, 2021a). The review consisted of only experimental studies meeting specific criteria, inferring that FLA has been studied across many countries and regions. Since anxiety itself is a sociocultural phenomenon (Lim, 2009), learners’ FLA level in one country may be different from that in other countries.

Indeed, Horwitz (2016) illustrated that cultural differences affect FLA because “anxiety specifically has been found to vary within different cultures” (p. 73). Congruently, Al-Saraj (2014) discussed FLA in relation to culture, arguing that “cultural norms dictate expected behavior for students in a classroom” and that FLA results from North America could differ from those in non-Western cultures (p. 259). More recently, Almuzaili and Uddin (2020) argued that FLA occurs when the sociocultural background of foreign language (FL) learners differs more from that of the target language. Although there have been theoretical discussions about a relationship between FLA and cultural differences, empirical research on this relationship is limited. Among a handful of studies focusing on individualism-collectivism culture, the study of Lim (2009) examined FLA in relation to both cultures and countries, but did not support a relationship between FLA and individualism-collectivism. She mentioned that methodological limitations could be responsible for this lack of support (Lim, 2009). In another study, Owuwegbuzie et al. (1999) investigated what factors of self-perception are related to FLA. They found a positive relationship between FLA and individualism. However, the nature of their study clarified factors concerning FLA but not cultural relevance. Also, Bailey et al. (2000) analyzed which individual attributes correlate to FLA in the learning process. They reported insignificant relationships between FLA and individualism without addressing cultural explanations.

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which were out of scope for their study. Thus, relationships between FLA and culture, particularly the cultural characteristic of individualism-collectivism, have not been sufficiently investigated and remain undefined. Accordingly, the present study aimed to explore how individualism-collectivism culture relates to FLA in classroom situations.

The current study employed a top-down approach for cross-cultural study. McCrae and Terracciano (2005) explained that a top-down approach relies on “the recent availability of data from large numbers of cultures” so researchers can compare aggregate scores across cultures as a culture-level analysis (p. 409). In contrast, a bottom-up approach, a common methodology in cross-cultural studies, compares two or several cultures using instruments in different languages. McCrae and Terracciano (2005) applied a top-down approach to examine personality profiles of 51 cultures with aggregate scores on the Revised NEO Personality Inventory. The current study used a similar approach for the Foreign Language Classroom Anxiety Scale (FLCAS) designed by Horwitz et al. (1986). This scale is well known and frequently used for FLA examination (Frantzen & Magnan, 2005; Kruk, 2016), so aggregate FLCAS mean scores derived from past empirical studies across countries/regions enabled cross-cultural comparisons. To assess the extent to which individualism-collectivism culture correlates to FLA, this study relied on ratings derived from the cultural indexes of Hofstede (Hofstede et al., 2010). McCrae and Terracciano (2005) used ratings of Hofstede’s cultural index in top-down studies, as did Barceló (2017) when analyzing how national personality traits correlate to countries’ regime types.

To offer practical guidelines to recognize high, mid, and low FLA in classes, the present study also attempted to determine a normative score of the FLCAS across countries/regions. The FLCAS, designed to examine general FLA, has 33 items with a 5-point Likert scale ranging from strongly disagree to strongly agree (Horwitz et al., 1986). Since the central point of the measure is 3 on a 5-point scale, the theoretical mid-score is 99, with a range from 33 (least anxiety) to 165 (most anxiety). To the best of our knowledge, a normative score for the FLCAS has not been presented in the literature, despite its wide use.

**Literature Review**

**Foreign Language Anxiety**

The multifaceted concept of FLA concerns emotion, cognition, and behavior (Horwitz, 2001; Oxford, 2017). Because of the complexity of its characteristics, several review studies reported that FLA had an adverse effect on various aspects of FL learning (see Botes et al., 2020; Horwitz, 2010; MacIntyre, 2017; Zhang, 2019).

Emotional domains of FLA are both situational and specific to engaging in FL learning, including shyness, fear, worry, upset, and panic (Horwitz et al., 1986). When FL learners feel anxious, they manifest physiological symptoms such as trembling and dry throat (Oxford, 2017). Cognitive domains of FLA are related to unrealistic beliefs (MacIntyre, 2017; Young, 1991), such as excessive precision of utterance (Young, 1991). Moreover, self-perceptions are a distinct characteristic of FLA and play a critical role in it (Onwueguzie et al., 1999). Finally, the behavioral domains encompassed in FLA can be observed in many situations. They can be seen in avoidance behaviors such as missing class, escaping evaluative situations (Horwitz et al., 1986), and diverting eye contact (Young, 1991).

FL classroom activities focus on four types of language proficiency—speaking, listening, writing, and reading—and FLA relates to all four types (Matsuda & Gobel, 2004; Young, 1990). Among the four, speaking activities are so anxiety provoking for FL learners that FL speaking anxiety is the major problem in class (Horwitz et al., 1986; Mak, 2011; Matsuda & Gobel, 2004). Cheng et al. (1999) assessed FL writing anxiety of Taiwanese university students, while Saito et al. (1999) measured FL reading anxiety of first-semester students of three different FL language courses. Similarly, Elkhafaifi (2005) assessed FL listening anxiety among students learning Arabic.

As discussed in the introduction, this study made use of the FLCAS, which was developed to examine the level of general classroom anxiety of FL learners (Horwitz et al., 1986; Matsuda & Gobel, 2004) with an emphasis on speaking anxiety (see Cheng et al., 1999). The FLCAS had satisfactory reliability when examined by Cronbach’s alpha (Park, 2014). Also, the concurrent validity of FLCAS was good as a result of analyzing relationships between anxiety scales. While the entire form of the FLCAS has been widely used as a unidimensional measure of 33 items, a short or modified version of the FLCAS has also been applied by numerous studies (e.g., Arnold, 2007; Galante, 2018; Melchor-Couto, 2017; York et al., 2021).

**Cultural Dimension of Individualism Versus Collectivism**

Many definitions of culture have been presented in the literature (Ealey & Ang, 2003; Noels et al., 2014). Ealey and Ang (2003) highlighted the usefulness of the definition proposed by anthropologist Kluckhohn (1954), as cited in Ealey & Ang, 2003), in which “culture consists of patterned ways of thinking, feeling, and reacting to various situations and actions” (p. 65). For their study on culture and the self in the field of FL learning, Noels et al. (2014) defined culture as “the systems of meaning” which “are constructed by interlocutors” and which “become the conventions and mores” transmitted through those who belong to a social network (p. 132). Hofstede et al. (2010) defined culture as the software of the mind, which represents a set of programming for people in a country. Hofstede’s definition of culture is commonly cited in the literature (Ealey & Ang, 2003) and proposes six
This study focused on individualism-collectivism (Hofstede et al., 2010; Triandis, 1995), which can be viewed as independent-self and interdependent-self, respectively (Markus & Kitayama, 1991). Individualism refers to the value of “societies in which the ties between individuals are loose” (Hofstede et al., 2010, p. 92). Those with an individualism culture are motivated by their own interests, preferences, and rights (Triandis, 1995). Thus, it is important for them to express their unique characteristics and attributes (Markus & Kitayama, 1991). In contrast, collectivism is related to the value of societies in which people “are integrated into strong, cohesive in-groups” (Hofstede et al., 2010, p. 92). Those with a collectivism culture are likely to prioritize common interests, goals, and norms of the group rather than personal interests and goals (Triandis, 1995).

In school situations, students with an individualism culture are encouraged to speak up in class, not only to ask questions but also to express opinions and thoughts. “Confrontations and open discussion of conflicts” are seen as beneficial for student learning (Hofstede et al., 2010, p. 118). In contrast, students in a collectivism culture are encouraged to avoid confrontation and conflicts; they “hesitate to speak up in large groups without a teacher present” and in classes with strangers (Hofstede et al., 2010, p. 118). Markus and Kitayama (1991) argued that students with an interdependent-self culture will “find a way to fit in with relevant others” and “to become part of various interpersonal relationships” (p. 227). Such a classroom will thereby become a learning place where students are attuned to the immediate situation, including their classmates, with careful observation, resulting in a trend of being silent.

**Foreign Language Anxiety and Individualism Versus Collectivism**

Although FL education has a variety of learning and teaching methods (Kuznetsova, 2015), one method for developing speaking proficiency involves actual speaking or oral communication of a target language in class. Such speaking activities can provoke students’ anxiety (Horwitz et al., 1986; Young, 1990) and language classrooms requiring such activities “are more anxiety-provoking than traditional classrooms” (Horwitz, 2001, p. 116). Even though FL learners who are anxious about speaking in class have been identified in various countries (Toyama & Yamazaki, 2021a), the degree of FLA in classroom contexts may vary based on cultural differences in individualism versus collectivism. Among these culturally different groups, there will be a clear distinction in terms of what teachers expect students to do based on norms of their societal and educational experience. Horwitz (2001) argued that classroom practices based on cultural differences lead to comfort for one group of learners but stress for the other. In Japan, a collectivist country (Hofstede et al., 2010; Triandis, 1995), Japanese EFL students are seen as shy, with an unwillingness to speak in class (Doyon, 2000). Thus, when teachers from an individualistic culture move to a collective society like Japan, they complain that students do not speak up in class (Hofstede et al., 2010), whereas students may feel anxious about the teacher’s instructional approach. These notions suggest that students of a collectivist culture have more emotional experiences, including anxiety, shyness, and embarrassment, in FL classes than those with an individualistic culture, because the collectivist students typically face more difficulty in speaking up.

A review conducted by Horwitz (2001) indicated that two empirical studies on American FL students reported relatively similar mean scores on the FLCAS, while the mean scores of Korean EFL students were relatively higher and the mean scores of Turkish-Cypriot learners of English were somewhat lower. Her review suggested that the FLA of students within the same country or region may be similar. Moreover, Korean students’ culture is inclined to collectivism (Hofstede et al., 2010; Triandis, 1995), and they felt more anxiety than American students, whose culture is more individualistic (Hofstede et al., 2010; Triandis, 1995).

In a study involving 224 participants over 32 different countries and regions, Lim (2009) empirically investigated whether FLA had a relationship with a country’s culture of individualism versus collectivism or with geographical area. Her study used measurements from Triandis’ cultural paradigm, which considers horizontal individualism (HI), vertical individualism (VI), horizontal collectivism (HC), and vertical collectivism (VC) (Triandis et al., 1998). Because only two participants were in the VC group, that group was excluded. Results revealed no significant difference in FLA between HI, VI, and HC participants (Lim, 2009). Lim (2009) commented that “the cultural construct of collectivism and individualism as operationalized in this study may not have been sufficient to capture the different degrees of language anxiety” (p. 41).

Lim (2009) further analyzed how geographical areas affect FLA. She divided areas into four groups: Asia group 1 (China, Hong Kong, Korea, Nepal, and Taiwan), Asia group 2 (India, Bangladesh, Pakistan, and Iran), Europe, and North/South America. Results indicated that the first Asian group had significantly higher FLA than the other three groups (Lim, 2009). Based on the results, she offered a theoretical implication concerning what factors differentiate FLA among those four geographical groups. Lim (2009) mentioned that culture still seems to play a substantial role in FLA, suggesting that research on culture and FLA should be further investigated.

**Study Purpose and Research Questions**

To summarize, the main purpose of this study was to explore how individualism-collectivism culture is associated with FLA in classroom situations. To achieve this purpose, the
study applied a top-down approach, aggregating FLCAS mean scores from previous empirical results according to countries and regions. Hofstede’s cultural paradigms were employed to analyze the linkage between individualism-collectivism culture and aggregated FLCAS scores of countries and regions. The second purpose of this study was to determine a normative score of the FLCAS across countries/regions. The normative score can be useful in enabling FL practitioners to recognize high, mid, and low FLA in classes. Figure 1 illustrates the research framework of this study, showing the two purposes and the top-down approach. Congruent with those two purposes, two research questions were addressed as follows:

(1) How does FLA in class relate to individualism-collectivism culture?
(2) What is a normative score of FLCAS across countries and regions?

Methods
A top-down approach was applied, which required FLCAS data from numerous countries/regions. To obtain this information, this study largely relied on a systematic review technique, involving the steps of a literature search, inclusion criteria, data extraction, and additional search (Siddaway et al., 2019). The process led to a synthesized dataset that presented not only FLCAS mean scores derived from each empirical FLA study, but also information on publication, country/region, and participant characteristics.

Literature Search
To locate potentially appropriate FLA studies with FLCAS scores, searches were conducted in four databases: Linguistics and Language Behavior Abstracts, PsycInfo, PsycArticles, and Scopus. The first three databases were accessed through the ProQuest platform, which includes numerous databases across disciplines. Literature searches were carried out entering the key terms “foreign language anxiety” OR “second language anxiety” on December 24, 2020, and were last updated on September 20, 2021. The search conditions specified no time limitation, publication in a journal, and document type of article in the English language.

Inclusion and Exclusion Criteria
Four inclusion criteria were established. First, studies had to use the full version of FLCAS, which consists of 33 items, so that FLCAS mean scores could be aggregated and compared.
Thus, studies applying a short version of FLCAS, other FLA measures, or only qualitative research designs were excluded, as were review and theoretical articles. Articles that used the 33-item FLCAS plus additional question items had to clarify the additional items and clearly differentiate between the original FLCAS and their modification.

Second, a FLCAS total mean score needed to be available for the entire participant group. If this general mean was not explicitly reported, the mean was calculated if the authors did one of the following: (a) presented the FLCAS mean score for all subgroups, accounting for all participants; (b) presented a FLCAS mean score for subcomponents or factors of the FLCAS, clarifying the item numbers of subcomponents/factors among the 33 items; or (c) reported an FLCAS mean score by item, including all 33 items of the FLCAS.

Third, included studies had to clarify the meaning of FLCAS mean scores to avoid misinterpretation. Generally, the maximum score of 165 shows the most anxiety, while the minimum score of 33 shows the least anxiety. The scales of included studies were checked to determine if they ranged from 1 to 5 and applied the same direction from low to high anxiety. When a scale range was not clearly explained or used the opposite direction, a careful examination was conducted by checking FLCAS mean scores with other variables. Such an examination involved a positive or negative relationship between the mean scores and individual variables such as academic performance, language proficiency, and so on.

Fourth, studies were excluded if they had either only high or low FLA participants or used the exact same sample with the same FLCAS mean scores from another study.

Data Extraction and Additional Search
Our database search produced 708 potentially eligible studies: 449 from ProQuest and 259 from Scopus. After 128 duplicates were eliminated, 580 potential studies were investigated by title and abstract and then 301 studies were excluded, resulting in 279 studies to evaluate for eligibility by full-text analysis. The full-text analysis resulted in removal of 199 studies due to the following reasons: (1) the first criterion about usage of FLCAS, 143 studies; (2) the second criterion concerning report of an FLCAS mean score, 28 studies; (3) the third criterion regarding clarification of the meaning of high/low FLCAS mean scores, 3 studies; and (4) the fourth criterion concerning two types of studies to be excluded, 9 studies. Additionally, 16 studies were not available. Accordingly, 80 studies from the database search were selected for the review.

Additional searches were conducted of three sources to seek potentially relevant published articles, as suggested by Siddaway et al. (2019). As a result, the present study added 26 new articles: 8 derived from FLA reduction projects, 9 from reference sections of work relevant to FLA studies, and 9 from a Google internet search. Thus, the number of included studies was 106 articles.

Adjustment and Calculation of FLCAS Mean Scores
To allow proper comparison of FLCAS mean scores among the 106 selected studies, adjustments were made to juxtapose scores for the dataset. This study applied the typical presentation of FLCAS scores: a range from 33 as the least anxiety to 165 as the most (Horwitz et al., 1986). If an FLCAS mean was reported differently than the typical presentation, it was calculated according to the following approach:

- FLCAS means based on a 1 to 5 range were adjusted based on a 33 to 165 range.
- FLCAS means based on 33 as most anxiety were adjusted based on 165 as most anxiety.
- FLCAS means reported only with subgroups (e.g., gender) were used to calculate the mean of the entire sample by using weighted means of all subgroups.
- FLCAS means reported only in terms of subcomponents/factors of FLCAS (e.g., communication apprehension, fear of evaluation, and test anxiety) were used to calculate the entire FLCAS by using means of all of the subcomponents/factors.
- FLCAS means reported on each of the 33 items individually were calculated by adding means of all 33 items.
- FLCAS means based on 4-, 6-, or 7-point Likert scales were calculated based on a 5-point scale.

Categorizations
Periods of educational experience might affect the cultural values of students as a socioculturalization effect. Hofstede et al. (2010) argued that human relationships “established in a child’s consciousness” are “further developed and reinforced in school” (p. 117). That is, cultural values involving individualism-collectivism are increasingly strengthened over the years spent at educational institutions. This study created two categories—elementary to high school and university/college—analyzing each group separately plus all educational institutions together.

Ratings of Hofstede’s Individualism-Collectivism Culture
Based on a top-down approach, aggregate FLCAS mean scores were calculated for each country/region. To obtain the FLCAS mean score, FLCAS means were weighted by the number of samples within the same country/region. The rating for individualism-collectivism culture was then added, where larger ratings indicate more individualism and smaller numbers indicate more collectivism. Ratings
for 5 of the 35 countries/regions were not directly included in Hofstede’s cultural index (see Hofstede et al., 2010). Thus, scores were estimated utilizing ratings of groups of country areas that were available. The cultural score of three countries—Egypt, Jordan, and Saudi Arabia—was estimated at 38 for Arab countries; that of Ethiopia at 27 for East Africa; that of Nigeria at 20 for West Africa; and that of Laos at 22 as a mean value of six Southeast Asian countries (Philippines, 32; Malaysia, 26; Singapore, 20; Thailand, 20; Vietnam, 20; Indonesia, 14) (Hofstede et al., 2010, pp. 96–97).

Results

Overall Dataset Summary

Table 1 presents the synthesized dataset of the 106 studies, arranged in alphabetical order for the 35 countries/regions, with publication information, characteristics of the sample, and FLCAS results. Forty-eight studies with adjusted FLCAS mean scores are noted in table footnote 1. Among 106 studies, 101 studies contained one FLCAS mean score, while five studies had two or three FLCAS mean scores based on targeted languages that were separately investigated and compared. The studies of Pichette (2009), Jin et al. (2017), Rodriguez and Abreu (2003), and Tallon (2009) included two FLCAS mean scores, whereas the study of Saito et al. (1999) had three. Furthermore, the studies of Jin et al. (2017) and Rodriguez and Abreu (2003) used the same participants with two different target languages, so these two studies’ FLCAS mean scores were calculated and applied to the aggregate scores of China and Venezuela, respectively. Overall, those five studies produced a total of 11 cases, resulting in 112 cases obtained from the 106 studies. Additionally, the study of Sokolová and Šuplatová (2018) involved university students and young adult language learners, as indicated in table footnote 2.

Over three-fourths of the selected studies came from higher education, while the rest were conducted in samples from elementary schools to high schools (18 studies), private language schools (3 studies), a mix of educational institutions (4 studies), and a college-bound program (1 study). The most common targeted language was English (84 cases), followed by Spanish (7 cases), French and Korean (5 cases each), Japanese (4 cases), Arabic (2 cases), and others (5 cases). Twenty-three selected studies had a concentration on FL/English such as a language, literature, translation, or teaching program; these were noted as having an “FL focus” in Table 1. Also, three studies were associated with heritage language learners, as indicated in table footnote 3. Finally, over half of the articles in the dataset reported Cronbach alphas of the FLCAS, which ranged from 0.70 to 0.96, with a mean of 0.91 ($SD = 0.05$), indicating remarkably high reliability.

Relation of FLA to Individualism-Collectivism Culture

Table 2 presents aggregate FLCAS mean scores per country/region, along with Hofstede’s ratings of individualism-collectivism culture (Hofstede et al., 2010) for the 35 countries/regions in our dataset. The table compares three groups. The first group, all educational institutions, involved 35 countries/regions, with 43,454 participants; the second group, elementary to high school, involved 12 countries/regions, with 24,967 participants; and the third group, university/college/graduate-school institutions, involved 26 countries/regions, with 15,686 participants. As described at the bottom of Table 2, for all educational institutions ($N = 35$), there was an insignificant relationship ($r = −0.32, p = .06$) with medium effect; for elementary to high schools ($N = 12$), there was also an insignificant relationship ($r = −0.01, p = .98$) with no effect; and for higher education institutions ($N = 26$), there was a statistically significant association ($r = −0.42, p = .03$) with medium to large effect.

In terms of all educational institutions and elementary to high schools, the study results did not support a relationship between individualism-collectivism culture and FLA in class, though the entire group of institutions had a medium level of effect size. The group of elementary to high schools in 12 countries/regions might be responsible for the critical value of all educational institutions, 0.06. On the other hand, in the context of higher education institutions in this study, results indicated that a stronger collectivism culture related to higher FLA, while a greater individualism culture was linked with lower FLA. Accordingly, this study suggests that a degree of this relationship at the country/regional level may depend on the type of educational institution.

Normative FLCAS Score Across Countries and Regions

The second research question addressed a normative score of FLCAS within the range of 33 (minimum anxiety) to 165 (maximum anxiety). Table 2 reports the aggregate FLCAS mean score for all educational institutions in 35 countries/regions. To examine the second research question, data from all educational institutions were employed. The overall aggregate mean of FLCAS over 35 countries/regions was 94.82 ($SD = 11.67$), with a minimum score of 56.32 (Canada) and a maximum of 114.51 (Ethiopia). Thus, 94.82 was the normative score of FLCAS, which is lower than the theoretical central score of 99.

To describe FLA levels as high, medium, and low at the country/region level, the present study adopted the heuristic method presented by Sparks and Ganschow (2007). They utilized FLCAS mean scores and standard deviations. Based on these statistics, two cut-off points were established. One
| Country/region | Researchers | N   | M   | M   | Female | Educational institution | FL focus | Target language | M     | SD     | α     |
|---------------|-------------|-----|-----|-----|--------|-------------------------|----------|-----------------|-------|--------|-------|
| Australia     | Jee (2018a) | 110 | 22.3| 23  | 87     | University              | Korean   | 95.37           | 0.94  |        |       |
|               | Jee (2018b) | 152 | 20.7| 31  | 121    | University              | Korean   | 92.07           | 0.94  |        |       |
|               | Jee (2019)  | 41  | 21.6| 12  | 29     | University              | Korean   | 91.74           | 0.94  |        |       |
|               | Shimbo (2008)| 29  | 21.1| 11  | 18     | University              | Japanese | 92.54           | 1.493 |        |       |
| Canada Québec | Pichette (2009) | 57  | 18  | 39  | 39     | University              | Spanish  | 54.32           | 1.407 |        |       |
|                |             | 129 | 37  | 92  |        | University              | English  | 57.20           | 1.495 |        |       |
| Chile         | Briesmaster and Briesmaster-Paredes (2015) | 249 | 84  | 154 |        | University              | English  | 95.60           | 1.536 |        |       |
|                | Chen et al. (2021) | 274 | 24.7| 218 | 56     | Graduate school         | Yes      | English         | 100.32| 0.95   |       |
|                | Guo et al. (2018) | 753 | 418 | 335 |        | University              | English  | 100.76           | 3.05  |        |       |
|                | Hu et al. (2021) | 631 | 324 | 307 |        | Primary school           | English  | 88.03           | 1.791 | 0.85   |       |
|                | Jin et al. (2017) | 146 | 19.57| 21  | 125    | University              | English  | 91.50           | 1.754 | 0.92   |       |
|                | Li et al. (2021) | 3013| 1182| 1782|        | Secondary school & University | English | 98.49           | 1.83  |        | >0.83 |
|                | Li and Xu (2019) | 1718| 16.81| 895 | 823    | High school             | English  | 100.19           | 1.987 | 0.92   |       |
|                | Liu and Jackson (2008) | 547 | 18.4| 430 | 117    | University              | English  | 92.57           |       |        |       |
|                | Liu and Yuan (2021) | 182 | 18.15| 137 | 45     | University              | English  | 104.94          | 0.95  |        |       |
|                | Shao et al. (2013) | 510 | 18.35| 155 | 355    | University              | English  | 92.03           | 2.042 | 0.92   |       |
|                | Wang et al. (2021) | 17341| 7261| 10080|        | Middle school           | English  | 97.68           | 0.96  |        |       |
| Egypt         | Kharbouch (2017) | 194 | 18.9| 180 | 14     | University              | Yes      | English         | 100.81| 1.498  | 0.93  |
|                | El Shazly (2021) | 48  | 18.9| 30  |        | University              | Yes      | English         | 117.00| 0.93   |       |
| Ethiopia      | Gerencehal and Mishra (2019) | 103 | 60  | 43  |        | University              | Yes      | English         | 114.51|        |       |
| Greece        | Gkonou (2013) | 128 |     |     |        | Language school         | English  | 74.80           | 1.650 |        |       |
| Hong Kong     | Dweaele and Ip (2013) | 73  | 18  | 33  | 40     | Primary & secondary school | English | 99.70           | 2.43  | 0.95   |       |
|                | Mak (2011) | 313 | 18  | 33  | 40     | University              | English  | 100.11          |       |        |       |
| Hungary       | Töth (2008) | 117 | 19.37| 27  | 90     | University              | Yes      | English         | 84.36 | 1.926  | 0.93  |
| India         | Chakrabarti and Sengupta (2012) | 146 | 87  | 59  |        | Secondary school        | English  | 101.47          | 0.88  |        |       |
| Indonesia     | Agulla and Harjanto (2016) | 20  |     |     |        | University              | English  | 105.90          |       |        |       |
|               | Hidayati (2018) | 96  | 21  | 75  |        | University              | English  | 102.17          |       |        |       |
| Iran          | Amiri and Ghonsooly (2015) | 258 | 90  | 168 |        | University              | English  | 95.28           | 0.89  |        |       |
|                | Dordinejad and Nasab (2013) | 239 |     |     |        | High school             | English  | 96.60           | 0.87  |        |       |
|                | Fallah (2017) | 295 | 20.24|     |        | University              | English  | 97.98           |       |        |       |
|                | Norouzian and Abdollahi (2017) | 70  | 27  |     |        | University              | English  | 96.77           | 0.70  |        |       |
|                | Rastegar and Karami (2015) | 74  | 24  | 50  |        | University              | Yes      | English         | 84.13 | 1.744  |       |
|                | Rouhani (2008) | 70  |     |     |        | University              | Yes      | English         | 91.52 |       |       |
|                | Salehi and Marefizadeh (2014) | 200 | 19  | 7   | 193    | Language school         | English  | 86.71           | 1.992 | 0.91   |       |
|                | Sanasi (2016) | 11  | 20  | 5   | 6      | University              | Yes      | English         | 90.33 |       |       |
|                | Serraj and Noordin (2013) | 210 |     |     |        | Language school         | English  | 86.79           | 0.78  |        |       |
|                | Shabani (2012) | 61  | 22  | 22  | 39     | University              | Yes      | English         | 100.54|       |       |
|                | Toghras and Shahrokhi (2014) | 60  | 30  | 30  |        | University              | Yes      | English         | 124.08|       |       |
| Israel        | Abu-Rabia (2004) | 67  | 27  | 40  | 47     | 7th grade               | English  | 85.80           |       |        |       |
| Japan         | Fujii (2015) | 114 | 18.7| 44  | 70     | University              | English  | 98.72           | 2.043 |        |       |
|                | Matsuda and Gobel (2004) | 252 | 75  | 177 |        | University              | Yes      | English         | 100.75| 1.144  | 0.78  |
|                | Toya and Tamanishi (2021b) | 127 | 18.11| 86  | 41     | University              | English  | 111.79          | 0.93  |        |       |
|                | Yasufu et al. (2009) | 182 | 103 | 78  |        | University              | English  | 100.95          | 1.805 | 0.89   |       |

(continued)
| Country/region | Researchers | N   | M    | Age | Gender | Educational institution | FL focus | Target language | FLCAS |
|---------------|-------------|-----|------|-----|--------|------------------------|----------|-----------------|-------|
| Jordan        | Al-Shuaibi et al. (2014) | 488 | 20.2 | University | Yes | Various | 99.60 | 17.20 | 0.88 |
| Korea (south) | Kim (2009)  | 59  | 0    | 59   | University | Yes | English | 104.00 | 19.50 | 0.95 |
|               | Kim (2018)  | 20  | 13   | 7    | College | Yes | English | 97.53* |       |       |
|               | Park and French (2013) | 948 | 21   | 368  | University | Yes | English | 94.86* | 0.94 |
|               | Ra and Rhee (2018) | 581 | 20.11 | 282 | College | Yes | English | 101.64 |       |       |
| Laos          | Phongsan et al. (2018) | 240 | 112  | 128  | University | Yes | English | 104.18 |       |       |
| Malaysia      | Chin et al. (2016) | 149 | 135  | 25   | University | Yes | English | 93.72* |       |       |
|               | Salim et al. (2017) | 160 | 135  | 25   | University | Yes | English | 99.23* |       |       |
| Nigeria       | Uchechukwu et al. (2019) | 300 | 130  | 170  | Secondary school | Yes | French | 100.31 |       |       |
| Philippines   | Alico (2015) | 68  | 52   | 47   | High school | Yes | English | 109.89 | 0.87 |
| Poland        | Kruk (2016)  | 27  | 25   | 6    | College Bound Program | Yes | English | 105.28 | 0.92 |
|               | Kruk (2018)  | 52  | 47   | 5    | High school | Yes | English | 98.48* | 0.96 |
|               | Kwieciń-Niedziela et al. (2020) | 25 | 12 | 13 | 7th-8th grade | Yes | English | 107.28 | 11.59 |
| Romania       | DONEAN (2016) | 106 | 51   | 55   | University | Yes | French | 97.04* |       |       |
| Russia        | Wang et al. (2018) | 183 | 20.4 | 60   | College | Yes | English | 84.81* | 0.95 |
| Saudi Arabia  | Alrabai (2014) | 1389 | 712 | 677 | Intermediate-high-school | Yes | English | 99.7 |       |       |
|               | Alrabai (2015) | 596 | 347 | 249 | University | Yes | English | 101.05 |       |       |
|               | Tanianian (2017) | 287 | 16 | 20.16 | University | Yes | English | 93.06 | 0.94 |
| Serbia        | Šafranč and Zvilišk (2019) | 296 | 20.16 | University | Yes | English | 87.81 | 24.28 | 0.94 |
| Slovakia      | Sokolová and Šuplatová (2018) | 210 | 24.8 | 58   | University, others | Yes | English | 80.88 | 24.24 | 0.96 |
| Slovenia      | Matric et al. (2019) | 535 | 258 | 277 | Elementary school | Yes | English | 69.63* | 0.91 |
| Spain         | Amengual-Pizarro (2018) | 67  | 12   | 63   | University | Yes | English | 100.08 | 23.63 | 0.94 |
|               | Amengual-Pizarro (2019) | 75  | 20.47 | 91   | University | Yes | English | 105.06 | 21.87 |
|               | Amaz-Castro and Guillén (2013) | 200 | 109 | University | Yes | Partly | 103.62* | 0.93 |
|               | Ballester (2015) | 108 | 20   | 88   | University | Yes | English | 102.03 |       |       |
|               | Smyth et al. (2021) | 394 | 712 | 677 | University | Yes | English | 100.44 | 17.97 |
| Taiwan        | Chen and Chang (2004) | 1187 | 20.09 | University | Yes | English | 92.63* | 0.95 |
|               | Chen and Chang (2009) | 88  | 20   | 68   | University | Yes | English | 97.02* | 0.87 |
|               | Chiang (2009) | 327 | 21.5 | 75   | University | Yes | English | 92.6 | 17.80 | 0.94 |
|               | Huang and Hwang (2013) | 124 | 128 | 105 | University | Yes | English | 100.98* |       |       |
|               | Kao and Craigie (2013) | 120 | 46   | 74   | University | Yes | English | 98.19 | 14.71 |
|               | Liu (2012a) | 150 | 70   | 80   | University | Yes | English | 116.33* | 0.96 |
|               | Liu (2012b) | 233 | 128 | 105 | University | Yes | English | 99.54* | 0.95 |
|               | Liu and Chen (2015) | 155 | 57   | 98   | High school | Yes | English | 98.46* | 0.92 |
|               | Liu et al. (2018) | 55  | 26   | 29   | 6th grade | Yes | English | 84.84* |       |       |
|               | Yang (2012) | 108 | 9.97 | 46   | University | Yes | English | 101.82 | 12.14 |
|               | Yu et al. (2020) | 17  | 5    | 12   | University | Yes | English | 100.32 | 0.86 |

(continued)
| Country/region | Researchers | N   | M | Age | Gender | Educational institution | FL focus | Target language | FLCAS | M    | SD  | α   |
|---------------|-------------|-----|---|-----|--------|-------------------------|----------|-----------------|-------|------|-----|-----|
| Thailand      | Inphoo and Nomnian (2019) | 36  | 8 | 28  | 10-11th grade | English | 123.42 | 1.96 |
|               | Palaleo and Srikrajang (2018) | 80  | 156 | 268 | Secondary school | English | 105.71 | 1.72 |
| Turkey        | Tanielian (2015) | 424 | 18 | 28  | High school   | English | 101.29 | 1.90 |
|               | Atas (2015) | 24  | 67 | 88  | University    | English | 101.95 | 1.91 |
|               | Demir and Zaimoğlu (2021) | 155 | 220 | 124 | University   | English | 105.80 | 2.03 |
|               | Şenel (2016) | 98  | 41 | 57  | University    | English | 89.43 | 0.94 |
|               | Ozer and Akçayoğlu (2021) | 344 | 19.13 | 220 | University   | English | 105.80 | 2.04 |
|               | Tum (2015) | 12  | 2  | 10  | University    | English | 92.31 | 1.95 |
|               | Yaylı (2017) | 93  | 4  | 10  | University    | English | 97.00 | 2.04 |
| UK            | Melchor-Couto (2018) | 14  | 1.5 | University | Spanish | 96.7 | 2.20 |
| USA           | Aida (1994) | 96  | 107 | 126 | University   | Spanish | 95.37 | 12.87 |
|               | Castillejo (2019) | 38  | 233 | University | Arabic | 90.6 | 23.81 |
|               | Elkhafaifi (2005) | 321 | University | Spanish/French | 89.09 | 0.94 |
|               | Frantzén and Magnus (2005) | 13  | University | French | 78.00 | 21.00 |
|               | Gronsveld (2005) | 108 | University | Spanish/French | 94.50 | 21.40 |
|               | Horwitz (1986) | 12  | 20.2 | University | Korean | 102.66 | 13.38 |
|               | Jee (2014) | 61  | 20.5 | 36 | University    | Korean | 81.18 | 21.48 |
|               | Jee (2016) | 134 | University | Spanish | 106.36 | 22.71 |
|               | Marcos-Linás and Garau (2009) | 80  | 41 | 39  | University    | Arabic | 100.65 | 0.94 |
|               | Nassif (2019) | 192 | University | French | 97.44 | 23.06 |
|               | Saito et al. (1999) | 114 | University | Japanese | 93.54 | 18.95 |
|               | Scidas and Jones (2017) | 108 | University | Spanish | 92.68 | 20.69 |
|               | Tallon (2009) | 204 | 22.1 | 61 | University    | Spanish | 94.66 | 24.75 |
|               | Xiao and Wong (2014) | 209 | 23.75 | 68 | University    | Spanish | 78.78 | 24.52 |
|               | Rodriguez and Abreu (2003) | 87  | 36 | 45  | University    | Chinese | 86.75 | 23.89 |
|               | Tran et al. (2013) | 21  | 162 | 257 | University    | English | 108.26 | 19.78 |

Note. *Adjusted FLCAS mean scores; †others including young adult language learners who finished at least their secondary school studies; ‡heritage language learners.
The cut-off point was 106.49: an FLCAS mean score of 94.82 plus one standard deviation of 11.67, indicating a higher level of FLA country/region. The other was 83.15: 94.82 minus 11.67 as a lower level of FLA country/region. Accordingly, a country/region with an FLCAS mean score of ≥106.49 is thought to be a high FLA country/region. In this study, the high FLA group corresponded to Ethiopia, the Philippines, and Vietnam. In contrast, a country/region with an FLCAS mean score of ≤83.15 is considered a low FLA country/region, which in this study included Slovakia, Greece, Slovenia, and Canada. Finally, mid-level FLA countries/regions have FLCAS mean scores between 83.15 and 106.49, and this grouping applied to the remaining 28 countries/regions. Figure 2 depicts the location of each of the 35 countries/regions compared with the FLCAS mean normative score.

| Table 2. Aggregate FLCAS Mean Scores. |
|---------------------------------------|
|                                      |
| **Country/region**                    |
| All educational institutions          |
|                                        |
| N=35                                  |
| Participant FLCAS                     |
|                                        |
| Australia 332                         |
| 93.16                                 |
| Canada Quebec 186                     |
| 56.32                                 |
| Chile 249                             |
| 95.60                                 |
| China a 25115                         |
| 97.63                                 |
| 22703                                 |
| 97.71                                 |
| Egypt 242                             |
| 104.02                                |
| Ethiopia 103                          |
| 114.51                                |
| Greece 128                            |
| 74.80                                 |
| Hong Kong 386                         |
| 100.03                                |
| 73                                    |
| 99.70                                 |
| Hungary 117                           |
| 84.36                                 |
| India 146                             |
| 101.47                                |
| 146                                   |
| 101.47                                |
| Indonesia 116                         |
| 102.81                                |
| 116                                   |
| 102.81                                |
| Iran 1548                             |
| 94.39                                 |
| 239                                   |
| 96.60                                 |
| 899                                   |
| 97.29                                 |
| Israel 67                             |
| 85.80                                 |
| 67                                    |
| 85.80                                 |
| Japan 675                             |
| 102.54                                |
| 675                                   |
| 102.54                                |
| Jordan 488                            |
| 99.60                                 |
| 488                                   |
| 99.60                                 |
| Korea (south) 1608                    |
| 97.68                                 |
| 1608                                  |
| 97.68                                 |
| Laos 240                              |
| 104.18                                |
| 240                                   |
| 104.18                                |
| Malaysia 309                          |
| 96.57                                 |
| 309                                   |
| 96.57                                 |
| Nigeria 300                           |
| 100.31                                |
| 300                                   |
| 100.31                                |
| Philippines 68                        |
| 109.89                                |
| 68                                    |
| 109.89                                |
| Poland 104                            |
| 102.36                                |
| 104                                   |
| 102.36                                |
| Romania 106                           |
| 97.04                                 |
| 106                                   |
| 97.04                                 |
| Russia 183                            |
| 84.81                                 |
| 183                                   |
| 84.81                                 |
| Saudi Arabia 2272                     |
| 99.22                                 |
| 287                                   |
| 93.06                                 |
| 38a                                   |
| Serbia 296                            |
| 87.81                                 |
| 296                                   |
| 87.81                                 |
| Slovakia 210                          |
| 80.88                                 |
| 210                                   |
| 80.88                                 |
| Slovenia 535                          |
| 69.63                                 |
| 535                                   |
| 69.63                                 |
| Spain 844                             |
| 101.78                                |
| 844                                   |
| 101.78                                |
| Taiwan 2564                           |
| 96.08                                 |
| 210                                   |
| 94.89                                 |
| 2354                                  |
| 96.18                                 |
| 17                                    |
| Thailand 540                          |
| 106.15                                |
| 460                                   |
| 107.10                                |
| 80                                    |
| 100.71                                |
| 20                                    |
| Turkey 726                            |
| 94.86                                 |
| 24                                    |
| 101.29                                |
| 702                                   |
| 94.64                                 |
| 37                                    |
| UK 14                                |
| 97.00                                 |
| 14                                    |
| 97.00                                 |
| 89                                    |
| USA 2087                             |
| 89.18                                 |
| 2087                                  |
| 89.18                                 |
| 91                                    |
| Venezuela a 110                       |
| 87.84                                 |
| 110                                   |
| 87.84                                 |
| 12                                    |
| Vietnam 440                           |
| 108.23                                |
| 440                                   |
| 108.23                                |
| 20                                    |
| N (total participants) 43454          |
| 24967                                 |
| 15686                                 |
| Mean 1241.54                          |
| 94.82                                 |
| 2080.58                               |
| 96.16                                 |
| 603.31                                |
| 95.65                                 |
| SD 4206.20                            |
| 11.67                                 |
| 6496.31                               |
| 9.81                                  |
| 707.50                                |
| 10.65                                 |
| Overall                               |
| Correlation with Hofstede rating r p  |
| −0.32                                 |
| 0.06                                  |
| −0.01                                 |
| 0.98                                  |
| −0.42                                 |
| 0.03                                  |
| Effect size                           |
| medium                                |
| no effect                             |
| medium to large                       |
| Note. aThe cultural score of three countries—Egypt, Jordan, and Saudi Arabia—was estimated at 38 for Arab countries; that of Ethiopia at 27 for East Africa; that of Nigeria at 20 for West Africa; and that of Laos at 22 as a mean value of six Southeast Asian countries (Philippines, 32; Malaysia, 26; Singapore, 20; Thailand, 20; Vietnam, 20; Indonesia, 14) (Hofstede et al., 2010, pp. 96–97); bThe studies of Jin et al. (2017) in China and Rodriguez and Abreu (2003) in Venezuela used the same participants with two different target languages. We calculated their studies’ FLCAS mean scores and applied them to the aggregate scores of China and Venezuela, respectively. |
Figure 2. Aggregate Foreign Language Classroom Anxiety Scale (FLCAS) mean scores of 35 countries/regions with the FLCAS normative and theoretical scores.
Discussion

Our study applied a top-down approach to explore how individualism-collectivism culture relates to FLA in classroom situations. This approach to the cross-cultural analysis of FLA is unique, since to the best of our knowledge it has not been examined. The feasibility of the top-down approach hinges on the availability of numerous studies employing common questionnaires. The present study focused on the FLCAS measure that was popularly and reliably used to examine FLA in multiple countries and regions. The full FLCAS was applied in 106 studies and 35 countries and regions, which created an adequate foundation for our data analysis. This study presented a significant correction between FLA and individualism-collectivism culture in terms of higher education institutions but not elementary to high schools. Additionally, through its top-down approach, the study was able to provide a normative score of FLCAS across countries and regions; the resulting score of 94.82 is slightly lower than the theoretical mid score of 99. In this section, we discuss three points: (1) possible reasons for a significant or insignificant correlation based on type of educational institution; (2) comparison between our results and those of past studies; and (3) practical implications of this study. That is followed by a section on study limitations.

First, the study results suggest that the strength of relationship between FLA and individualism-collectivism culture depends on the type of educational institution, since FLA in class strongly related to the culture only for university/college students. This raises the question of why FLA was not significantly related to individualism-collectivism culture in elementary to high school students. One explanation could relate to the development of students’ cultural values: Children’s cultural values might not be as fixed as those of adults. It is understandable why the top-down approach research of McCrae and Terracciano (2005) on cross-cultural differences in personality focused on a context of higher education using Hofstede’s cultural scores, which were established based on IBM employees (Hofstede et al., 2010). Another explanation might relate to the effect of teacher-student interactions on FLA in class (Toyama & Yamazaki, 2021). Since elementary to high school teachers seem to be psychologically close to their students, this effect might be more relevant and influential in elementary to high schools than cultural influence. A positive teacher-student relationship makes students feel safe in class, which leads them to be more active in class and at school (Modi, 2015) and then to acquire skills and knowledge more easily (Toste et al., 2015). Thus, elementary to high schools in a collectivistic culture that have more positive teacher-student relationships may create a warm atmosphere where students feel less FL anxiety in classrooms.

The second point concerns comparisons with past results. The findings on the relationship between individualism-collectivism culture and FLA were not congruent with Lim’s (2009) study, which did not support the relationship due to a possible methodological limitation, as discussed previously. Her study importantly demonstrated the association between FLA and four geographical areas (i.e., two different geographical locations of Asia plus Europe and the Americas), and she mentioned an influence of culture on that association. In this study, Figure 2 visually illustrates differences in aggregate FLCAS mean scores of 35 countries/regions. Other than individualism-collectivism culture, it also seems crucial to explore other effects of countries’ cultures in relation to FLA, such as Hofstede’s power distance, which is correlated to the cultural dimension of individualism versus collectivism (Hofstede et al., 2010), or high versus low context, as proposed by Hall (1976), which reflects cultural differences between countries such as Japan, Arab countries, and Greece and countries including North American and Scandinavian countries and German-speaking countries (Hall & Hall, 1990).

Third, the present study has practical implications for educators. At times, FL instructors, educators, and practitioners have an opportunity to work in a different country/region. In this case, they should keep in mind any cultural differences because their instruction and practice in classrooms can create an unpleasant classroom atmosphere and become a source of FLA (Horwitz, 2001). For example, communication interaction in class is not part of traditional Japanese education (Yashima et al., 2009) as a socioeducational norm, so Japanese students may be embarrassed or worried by frequent interaction between teachers and students in class. Since our study results indicated that countries/regions inclined more toward collectivism showed higher anxiety of FL learners, teachers coming from an individualistic country/region should consider how to teach FL in a collectivistic country/region. It is thereby important to know which cultural group FL teachers and learners belong to.

Limitations

As discussed in the methodology section, FLCAS mean scores of 54 studies were adjusted to properly analyze 112 cases and 106 studies. This score adjustment is the first limitation of this study. Those scores were mathematically correct; however, some adjusted scores were practically hard to obtain, particularly when studies adopted 4- or 6-point FLCAS, which does not have a neutral or middle point like 3 in the 5-point scale. As another limitation, our dataset was limited to information in journal articles published in English. That is, the dataset was not all inclusive. Nevertheless, the tables and figure in this study are robust and meaningful enough to present tendencies with regard to relationships between FLA, countries/regions, and cultures.

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References
Abu-Rabia, S. (2004). Teachers’ role, learners’ gender differences, and FL anxiety among seventh-grade students studying English as a FL. *Educational Psychologist, 24*(5), 711–721. https://doi.org/10.1080/014434104200063006
Aguila, K. B., & Harjanto, I. (2016). Foreign language anxiety and its impacts on students’ speaking competency. *Anima Indonesian Psychological Journal, 32*(1), 29–40. https://doi.org/10.24123/aiipj.v32i1.582
Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope’s construct of foreign language anxiety: The case of students of Japanese. *Modern Language Journal, 78*, 155–168. https://doi.org/10.1111/j.1540-4781.1994.tb02026.x
Alico, J. C. (2015). Exploring English language anxiety: The case of pre-university students from minority tribes. *ELK Asia Pacific Journal of Social Sciences, 2*(1), https://doi.org/10.16962/capjsiss.2394-9392/2014/v2i1.01
Alnuzaili, E. S., & Uddin, N. (2020). Dealing with anxiety in foreign language learning classroom. *Journal of Language Teaching and Research, 11*(2), 269–273. https://doi.org/10.17507/jltr.1102.15
Alrabai, F. (2014). A model of foreign language anxiety in the Saudi EFL context. *English Language Teaching, 7*(7), 82–101. https://doi.org/10.5539/elt.v7n7p82
Alrabai, F. (2015). The influence of teachers’ anxiety-reducing strategies on learners’ foreign language anxiety. *Innovation in Language Learning and Teaching, 9*(2), 163–190. https://doi.org/10.1080/18701229.2014.890203
Al-Saraj, T. M. (2014). Foreign language anxiety in female Arabs learning English: Case studies. *Innovation in Language Learning and Teaching, 8*(3), 257–278. https://doi.org/10.1080/17501229.2013.837911
Al-Shuaibi, J., Hamdan-Mansour, A. M., & Azzeghaiby, S. N. (2014). Foreign language anxiety among students studying foreign languages. *Life Science Journal, 11*(8), 197–203. https://doi.org/10.7537/marslsj110814.25
Amengual-Pizarro, M. (2018). Foreign language classroom anxiety among English for specific purposes (ESP) students. *International Journal of English Studies, 18*(2), 145–159. https://doi.org/10.6018/ijes.2018/2/323311
Amengual-Pizarro, M. (2019). Do prospective primary school teachers suffer from foreign language anxiety (FLA) in Spain? *ITL - International Journal of Applied Linguistics, 16*, 9–30. https://doi.org/10.35869/vial.v1i6.91
Amiri, M., & Ghonsooly, B. (2015). The relationship between English learning anxiety and the students’ achievement on examinations. *Journal of Language Teaching and Research, 6*(4), 855–965. https://doi.org/10.17507/jltr.2004.20
Arnaiz-Castro, P., & Guillén, F. (2013). Anxiety in Spanish EFL students in different university degree programmes. *Anales de Psicologia, 29*(2), 335–344. https://doi.org/10.6018/analesps.29.2.130791
Arnold, N. (2007). Reducing foreign language communication apprehension with computer-mediated communication: A preliminary study. *System, 35*, 469–486. https://doi.org/10.1016/j.system.2007.07.002
Atas, M. (2015). The reduction of speaking anxiety in EFL learners through drama techniques. *Procedia - Social and Behavioral Sciences, 176*, 961–969. https://doi.org/10.1016/j.sbspro.2015.01.565
Bailey, P., Onwuegbuzie, A. J., & Daley, C. E. (2000). Correlates of anxiety at three stages of the foreign language learning process. *Journal of Language and Social Psychology, 19*(4), 474–490. https://doi.org/10.1177/02699931001904005
Ballester, E. P. (2015). Verbal and nonverbal teacher immediacy and foreign language anxiety in an EFL university course. *Porta Linguarum, 23*, 9–24.
Barceló, J. (2017). National personality traits and regime type: A cross-national study of 47 countries. *Journal of Cross-Cultural Psychology, 48*(2), 195–216. https://doi.org/10.1177/00238774166678324
Botes, E., Dewaele, J.-M., & Greiff, S. (2020). The foreign language classroom anxiety scale and academic achievement: An overview of the prevailing literature and a meta-analysis. *Journal for the Psychology of Language Learning, 2*, 26–56.
Briesmaster, M., & Briesmaster-Paredes, J. (2015). The relationship between teaching styles and NNPSETs’ anxiety levels. *System, 49*, 145–156. https://doi.org/10.1016/j-system.2015.01.012
Castillejo, S. P. (2019). The role of foreign language anxiety on L2 utterance fluency during a final exam. *Language Testing, 36*(3), 327–345. https://doi.org/10.1177/026553221777783
Chakrabarti, A., & Sengupta, M. (2012). Second language learning anxiety and its effect on achievement in the language. *Language in India, 12*(8), 50–78.
Cheng, Y. S., Horwitz, E. K., & Schallert, D. L. (1999). Language anxiety: Differentiating writing and speaking components. *Language Learning, 49*(3), 417–446. https://doi.org/10.1111/1023-8333.00095
Chen, I.-J., & Chang, C.-C. (2009). Cognitive load theory: An empirical study of anxiety and task performance in language learning. *Electronic Journal of Research in Educational Psychology, 7*(2), 729–746.
Chen, T.-Y., & Chang, G. B. Y. (2004). The relationship between foreign language anxiety and learning difficulties. *Foreign Language Annals, 37*(2), 279–289. https://doi.org/10.1111/j.1944-9720.2004.tb02200.x
Chen, Z., Zhang, P., Lin, Y., & Li, Y. (2021). Interactions of trait emotional intelligence, foreign language anxiety, and foreign language enjoyment in the foreign language speaking classroom. *Journal of Multilingual and Multicultural Development, 21*.1890754
Chiang, Y.-N. (2009). Foreign language anxiety in Taiwanese student interpreters. *Meta, 54*(3), 605–621. https://doi.org/10.7202/038318ar
Chin, V., Ling, T. H., & Yih, Y. J. (2016). Investigating English language anxiety among UiTM Sarawak undergraduates. *Journal of Creative Practices in Language Learning and Teaching, 4*(1), 50–62.
Liu, M.-C., Huang, Y.-M., & Xu, Y.-H. (2018). Effects of individual versus group work on learner autonomy and emotion in digital storytelling. *Educational Technology Research and Development, 66*, 1009–1028. https://doi.org/10.1007/s11423-018-9601-2

Liu, M., & Jackson, J. (2008). An exploration of Chinese EFL learners’ unwillingness to communicate and foreign language anxiety. *Modern Language Journal, 92*(1), 71–86. https://doi.org/10.1111/j.1540-4781.2008.00687.x

Liu, M., & Yuan, R. (2021). Changes in and effects of foreign language classroom anxiety and listening anxiety on Chinese undergraduate students’ English proficiency in the COVID-19 context. *Frontiers in Psychology, 12*, 670824. https://doi.org/10.3389/fpsyg.2021.670824

Maclntyre, P. D. (2017). An overview of language anxiety research and trends in its development. In C. Gkonou, M. Daubney, & J. M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications* (pp. 11–30). Multilingual Matters.

Mak, B. (2011). An exploration of speaking-in-class anxiety with Chinese ESL learners. *System, 39*(2), 202–214. https://doi.org/10.1016/j.system.2011.04.002

Marcos-Llinás, M., & Garau, M. J. (2009). Effects of language anxiety on three proficiency-level courses of Spanish as a foreign language. *Foreign Language Annals, 42*(1), 94–111. https://doi.org/10.1111/j.1944-9720.2009.01010.x

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*(2), 224–253. https://doi.org/10.1037/0033-295X.98.2.224

Matrić, M., Brumen, M., & Košir, K. (2019). The role of social relationships in children’s active EFL learning. *Psychology of Language and Communication, 23*(1), 302–329. https://doi.org/10.1037/plc-2019-00014

Matsuda, S., & Gobel, P. (2004). Anxiety and predictors of performance in the foreign language classroom. *System, 32*(1), 21–36. https://doi.org/10.1016/j.system.2003.08.002

McCrae, R. R., & Terracciano, A. (2005). Personality profiles of cultures: Aggregate personality traits. *Journal of Personality and Social Psychology, 89*(3), 407–425. https://doi.org/10.1037/0022-3514.89.3.407

Melchor-Couto, S. (2017). Foreign language anxiety levels in second life oral interaction. *ReCALL, 29*(1), 99–119. https://doi.org/10.1080/0958344016000185

Melchor-Couto, S. (2018). Virtual world anonymity and foreign language oral interaction. *ReCALL, 30*(2), 232–249. https://doi.org/10.1080/0958344017000398

Modi, M. J. (2015). The effects of teacher-student relationships: Social and academic outcomes of low-income secondary school students. *International Journal of Research in All Subjects in Multilinguals, 3*(6), 26–27.

Nassif, L. (2019). The relationship of language anxiety with noticing and oral production of L2 forms: A study of beginning learners of Arabic. *System, 80*, 304–317. https://doi.org/10.1016/j.system.2018.12.008

Noels, K. A., Chaffee, K. E., Michalylk, M., & McEown, M. S. (2014). Culture, autonomy and the self in language learning. In K. Ciszér & M. Magid (Eds.), *The impact of self-concept on language learning* (pp. 131–154). Multilingual Matters.

Nosratinia, M., & Abdí, F. (2017). The comparative effect of portfolio and summative assessments on EFL learners’ writing ability, anxiety, and autonomy. *Journal of Language Teaching and Research, 8*(4), 823–834. https://doi.org/10.17507/jltr.0804.24

Onwuegbuzie, A. J., Bailey, P., & Daley, C. E. (1999). Factors associated with foreign language anxiety. *Applied Psycholinguistics, 20*(2), 217–239. https://doi.org/10.1017/S0142716499002039
Oxford, R. L. (2017). Teaching and researching language learning strategies: Self-regulation context (2nd ed.). Routledge.

Ozer, O., & Akgayoglu, D. I. (2021). Examining the roles of self-efficacy beliefs, self-regulated learning and foreign language anxiety in the academic achievement of tertiary EFL learners. Participatory Educational Research, 8(2), 357–372. https://doi.org/10.17275/per.21.43.8.2

Palileo, J. J. P., & Srikrjaang, J. (2018). English anxiety among Thai nursing students of Boromarajonani College of Nursing, Nakhon Lampang, Thailand. Asian Journal for Public Opinion Research, 5(3), 250–265. https://doi.org/10.15206/ajpor.2018.5.3.250

Park, G. P. (2014). Factor analysis of the foreign language classroom anxiety scale in Korean learners of English as a foreign language. Psychological Reports, 115(1), 261–275. https://doi.org/10.2466/28.11.PR0.115c10xz

Park, G.-P., & French, B. F. (2013). Gender differences in the foreign language classroom anxiety scale. System, 41(2), 462–471. https://doi.org/10.1016/j.system.2013.04.001

Phongs, M., Mohamed Ismail, S. A. M., & Low, H. M. (2018). Multilingual effects on EFL learning: A comparison of foreign language anxiety experienced by monolingual and bilingual tertiary students in the Lao PDR. Journal of Multilingual and Multicultural Development, 39(3), 271–282. https://doi.org/10.1080/01434632.2017.1371723

Pichette, F. (2009). Second language anxiety and distance language learning. Foreign Language Annals, 42(1), 77–93. https://doi.org/10.1111/j.1944-7920.2009.01009.x

Ra, J., & Rhee, K. J. (2018). Detection of gender related DIF in the foreign language classroom anxiety scale. Educational Sciences Theory & Practice, 8, 47–60. https://doi.org/10.12738/estp.2018.1.0606

Rastegar, M., & Karami, M. (2015). On the relationship between foreign language classroom anxiety, willingness to communicate and scholastic success among Iranian EFL learners. Theory and Practice in Language Studies, 5(11), 2387–2394. https://doi.org/10.17507/tpls.0511.25

Rodriguez, M., & Abreu, O. (2003). The stability of general foreign language classroom anxiety across English and French. Modern Language Journal, 87, 365–374. https://doi.org/10.1111/j.1540-4781.2003.00195

Rouhani, A. (2008). An investigation into emotional intelligence, foreign language anxiety and empathy through a cognitive-affective course in an EFL context. Lingistik Online, 34(2), 41–57. https://doi.org/10.13092/lo.34.526

Šafrań, J., & Živilak, J. (2019). Effects of big five personality traits and fear of negative evaluation on foreign language anxiety. Croatian Journal of Education, 21(1), 275–306. https://doi.org/10.15516/cje.v21i1.2942

Saito, Y., Garza, T. J., & Horwitz, E. K. (1999). Foreign language reading anxiety. Modern Language Journal, 83(2), 202–218. https://doi.org/10.1111/0026-7902.00016

Salehi, M., & Marefat, F. (2014). The effects of foreign language anxiety and test anxiety on foreign language test performance. Theory and Practice in Language Studies, 4(5), 931–940. https://doi.org/10.4304/tpls.4.5.931-940

Salim, W. I. W., Subramaniam, V., & Termizi, A. A. (2017). Foreign language anxiety (FLA) in English language classroom. International Journal of Languages Literature and Linguistics, 3(1), 5–12. https://doi.org/10.18178/ijlll.2017.3.1.101

Sanæi, O. (2016). Investigating anxiety symptoms and reactions within EFL learners’ oral narratives: The case of intermediate level students. Journal of Language Teaching and Research, 7(5), 902–912. https://doi.org/10.17507/jltr.0705.10

Scida, E. E., & Jones, J. E. (2017). The impact of contemplative practices on foreign language anxiety and learning. Studies in Second Language Learning and Teaching, 7(4), 573–599. https://doi.org/10.14746/sslst.2017.7.4.2

Şenel, E. (2016). Foreign language anxiety of students studying English language and literature: A sample from Turkey. Educational Research and Reviews, 11(6), 219–228. https://doi.org/10.5897/ERR2015.2507

Serraj, S., & Noordin, N. (2013). Relationship among Iranian EFL students’ foreign language anxiety, foreign language listening anxiety and their listening comprehension. English Language Teaching, 6(5), 1–12. https://doi.org/10.5539/elt.v6n5p1

Shabani, M. B. (2012). Levels and sources of language anxiety and fear of negative evaluation among Iranian EFL learners. Theory and Practice in Language Studies, 2(11), 2378–2383. https://doi.org/10.4304/tpls.2.11.2378-2383

Shao, K., Yu, W., & Ji, Z. (2013). An exploration of Chinese EFL students’ emotional intelligence and foreign language anxiety. Modern Language Journal, 97(4), 917–929. https://doi.org/10.1111/1540-4781.2013.12042.x

Shimko, B. (2008). The effects of music, relaxation and suggestion on tertiary students’ affect and achievement in learning Japanese as a foreign language. Australian Review of Applied Linguistics, 3(2), 16.1–16.22. https://doi.org/10.2104/aral0816

Siddaway, A. P., Wood, A. M., & Hedges, L. V. (2019). How to do a systematic review: A best practice guide for conducting and reporting narrative reviews, meta-analyses, and meta-syntheses. Annual Review of Psychology, 70, 747–770. https://doi.org/10.1146/annurev-psych-010418-102803

Smyth, A. M., García Manzanares, N., & Fernández-Muñoz, J. J. (2021). Anxiety and personality as indicators of academic performance in university foreign language classrooms. Porta Linguarum, 36, 27–42. https://doi.org/10.30827/portaln.v0i36.15376

Sokolová, L., & Šuplatová, A. (2018). Anxiety in the foreign-language classroom. International Educational Journal: Comparative Perspectives, 13(1), 60–81.

Sanni, A. R. (2015). Foreign language anxiety in a new English program in Thailand. International Education Journal: Comparative Perspectives, 13(1), 60–81.

Sanni, A. R. (2017). Foreign language anxiety among first-year Saudi university students. International Educational Journal: Comparative Perspectives, 16(2), 116–130.

Toghræe, T., & Shahrokhi, M. (2014). Foreign language classroom anxiety and learners’ and teachers’ beliefs toward FLL: A case study of Iranian undergraduate EFL learners. International Journal of Applied Linguistics & English Literature, 3(2), 131–137. https://doi.org/10.7575/aiac.ijael.v.3n.2p.131
Toyama, M., & Yamazaki, Y. (2021a). Classroom interventions and foreign language anxiety: A systematic review with narrative approach. *Frontiers in Psychology, 12*, 614184. https://doi.org/10.3389/fpsyg.2021.614184

Toyama, M., & Yamazaki, Y. (2021b). Anxiety reduction sessions in foreign language classrooms. *Language Learning Journal, 49*, 330–342. https://doi.org/10.1080/09571736.2019.1598474

Tran, T. T. T., Baldauf, R. B., & Moni, K. (2013). Foreign language anxiety: Understanding its status and insiders’ awareness and attitudes. *TESOL Quarterly, 47*(2), 216–243. https://doi.org/10.1002/tesq.85

Triandis, H. C. (1995). *Individualism and collectivism*. Westview Press.

Triandis, H. C., Chen, X. P., & Chan, D. K.-S. (1998). Scenarios for the measurement of collectivism and individualism. *Journal of Cross-Cultural Psychology, 29*(2), 275–289. https://doi.org/10.1177/0022022198292001

Tum, D. O. (2015). Foreign language anxiety’s forgotten study: The case of the anxious preservice teacher. *TESOL Quarterly, 49*(4), 627–658. https://doi.org/10.1002/tesq.190

Uchechukwu, O.-A. A., Chinomso, M. B., Ezinne, N.-O., & Gospel-Tonyj, O. (2019). Influence of foreign language anxiety on the academic achievement of senior secondary school students in French in Imo state. *Language, Literature and Culture, 2*(3), 123–126.

Wang, K., Permyakova, T., Sheveleva, M., & Camp, E. (2018). Perfectionism as a predictor of anxiety in foreign language classrooms among Russian college students. *ECPS Journal, 18*, 127–164. https://doi.org/10.7358/ecps-2018-018-wang

Wang, X., Liu, Y.-L., Ying, B., & Lin, J. (2021). The effect of learning adaptability on Chinese middle school students’ English academic engagement: The chain mediating roles of foreign language anxiety and English learning self-efficacy. *Current Psychology. Advance online publication*. https://doi.org/10.1007/s12144-021-02008-8

Xiao, Y., & Wong, K. F. (2014). Exploring heritage language anxiety: A study of Chinese heritage language learners. *Modern Language Journal, 98*(2), 589–611. https://doi.org/10.1111/modl.12085

Yang, H.-C. (2012). Language anxiety, acculturation, and L2 self: A relational analysis in the Taiwanese cultural context. *Electronic Journal of Foreign Language Teaching, 9*(2), 183–193.

Yashima, T., Noels, K. A., Shizuka, T., Takeuchi, O., Yamane, S., & Yoshizawa, K. (2009). The interplay of classroom anxiety, intrinsic motivation, gender in the Japanese EFL context. *Journal of Foreign Language Education and Research (Kansai daigaku gaikokugo kyoiku kenkyu kiko)*, 17, 41–64.

Yayli, D. (2017). Using group work as a remedy for EFL teacher candidates’ listening anxiety. *Eurasian Journal of Educational Research, 17*, 41–58. https://doi.org/10.14689/ ejer.2017.71.3

York, J., Shibata, K., Tokutake, H., & Nakayama, H. (2021). Effect of SCMC on foreign language anxiety and learning experience: A comparison of voice, video, and VR-based oral interaction. *ReCALL, 33*(1), 49–70. https://doi.org/10.1017/S0958344020000154

Young, D. J. (1990). An investigation of students’ perspectives on anxiety and speaking. *Foreign Language Annals, 23*(6), 539–553.

Young, D. J. (1991). Creating a low-anxiety classroom environment: What does language anxiety research suggest? *Modern Language Journal, 75*(4), 426–437. https://doi.org/10.1111/j.1540-4781.1991.tb05378.x

Yu, L.-T., Song, J., & Chiu, F.-Y. (2020). Using three-dimension virtual world to reduce language anxiety and enhance English-speaking performance of EFL university learners: A collaborative project. *Taiwan Journal of TESOL, 17*(2), 65–89. https://doi.org/10.30397/TJTESOL.202010_17(2).0003

Zhang, X. (2019). Foreign language anxiety and foreign language performance: A meta-analysis. *Modern Language Journal, 103*(4), 763–781. https://doi.org/10.1111/modl.12590