Language anxiety in EFL and ESL academic environments

Article

Published Version

Chong, K. H. ORCID: https://orcid.org/0000-0002-7817-7442, Price, J. ORCID: https://orcid.org/0000-0001-7200-8691, Irwin, D. ORCID: https://orcid.org/0000-0003-0342-6958, Dowens, M. G. ORCID: https://orcid.org/0000-0002-3422-3849 and Leong, C. X. R. ORCID: https://orcid.org/0000-0003-1110-545X (2025) Language anxiety in EFL and ESL academic environments. Asian Englishes. ISSN 2331-2548 doi: 10.1080/13488678.2025.2548997 Available at https://centaur.reading.ac.uk/124101/

www.reading.ac.uk/centaur

Language anxiety in EFL and ESL academic environments

Kai Hao Chong, Jessica Price, Derek Irwin, Margaret Gillon Dowens & Christine Xiang Ru Leong

View supplementary material ⬀

Published online: 26 Aug 2025.

Submit your article to this journal ⬀

View related articles ⬀

View Crossmark data ⬀

Routledge
Taylor & Francis Group

Language anxiety in EFL and ESL academic environments

Kai Hao Chong [a], Jessica Price [b], Derek Irwin [c], Margaret Gillon Dowens [c] and Christine Xiang Ru Leong [b]

[a]School of Psychology and Clinical Language Sciences, University of Reading Malaysia, Iskandar Puteri, Malaysia; [b]School of Psychology, University of Nottingham Malaysia, Semenyih, Malaysia; [c]School of Education and English, University of Nottingham, Ningbo, China

ABSTRACT

Although past research has shown significant associations between language anxiety and different linguistic factors (i.e. language proficiency, self-perceived language competence, and frequency of language usage), so far, few studies have directly compared their interaction in foreign language vs second language speaking environments. This comparison is vital to understanding how local language experience, environment, and competence shape language anxiety, shedding light on whether language education should be standardized or tailored to local contexts. To examine the relationships between these three linguistic factors and out-of-class language anxiety, a cross-sectional survey was administered to tertiary education students studying at the Malaysia and China campuses of an English as Medium of Instruction (EMI) university. Of the three linguistic factors studied, only self-perceived language competence, but not language proficiency or frequency of language usage, significantly predicted language anxiety in both groups. In addition, the Malaysian speakers, despite being more competent English users, reported higher anxiety levels than the Chinese speakers in some of the language use scenarios. These results suggest that identity-based factors play a more significant role than competence in predicting language anxiety in these proficient English users, with these effects influenced by the differing sociolinguistic expectations of English proficiency in the two countries.

The experience of using a foreign or second language is different from that of using a first language (L1), presenting a number of challenges which have been widely researched across many languages. One common negative experience reported is language anxiety: an emotional feeling of stress, nervousness, and worry when using a foreign or second language (Horwitz, 2001). Language anxiety can act as an affective filter that blocks the receiving or processing of useful information. The quality of language output can thus be affected, which may lead to 'ineffective retrieval of vocabulary, inappropriate use of grammar rules, or an inability to respond at all' (MacIntyre & Gardner, 1994, p. 3).

Language anxiety studies have often not discriminated between foreign language and second language usage, with many using these two terms interchangeably (Horwitz, 2010; Teimouri et al., 2019). As a result, the language anxiety experienced by these two groups of speakers has been studied as one common phenomenon. However, given the systematic differences in the amount and quality of language use experience and language learning motivation between foreign and second language environments (Sato & Storch, 2022), the causes of speakers' language anxiety could also potentially be different. An accurate understanding of the language anxiety experience, in relation to the speakers' linguistic experience and capabilities, would help to establish whether contextualized language education is necessary to address the affective challenges of foreign and second language acquisition and usage. This understanding could thus help educators and policymakers to design more targeted and effective interventions, tailored for speakers in their respective socio-cultural contexts (see Ng & Boucher-Yip, 2014, for more examples of contextualized language education).

In the current study, we examine how three linguistic factors explain the language anxiety experienced in two different English-speaking academic environments, that is, English as foreign language (EFL) and English as second language (ESL) environments. Note that EFL and ESL are used here to reflect differences in English exposure and experience in the immediate environment, and carry no negative connotation regarding English ownership. Previous studies have only looked at the factors of language anxiety in either EFL or ESL speakers. However, comparing these different groups allows us to clearly contrast which aspects of the language anxiety experience may be attributable to the different English environments, and may inform about the importance of acknowledging this variable when studying these speakers' language anxiety experience.

EFL versus ESL

In terms of how frequently speakers encounter English in their living environments, usage experience varies between EFL and ESL environments (MacIntyre & Gregersen, 2012). An EFL environment usually implies that the target language is learnt in an institutional or academic context, with limited opportunities to interact with the target language community. An ESL environment, on the other hand, implies more opportunities to use the target language during daily life interactions. Compared to an EFL environment, an ESL environment provides more authentic occasions for English usage, which promotes pragmatic and communicative competence (Wyner & Cohen, 2015). Li (2014) observed that speakers are more integratively motivated to spend more effort studying and using English in an ESL environment than in an EFL environment because of the ease of obtaining and using English in their immediate surroundings. Below we offer an example of EFL and ESL environments to further illustrate their differences.

According to the Ministry of Education China (2021), most Chinese citizens speak Mandarin as their L1, whereas English is learnt as a foreign language. Learning the English language is compulsory for every Chinese student starting from Grade 3 (at approximately age 8) and has become one of the main subjects tested in the national college entrance exam (also known as Gaokao). However, despite the growing promotion of English learning, Mandarin remains the common language used in the country, whereas English use in daily life is rare in comparison (Bolton & Graddol, 2012; Wei &

Su, 2015; Yang, 2006). China was ranked 82 among 113 countries and was regarded as a moderate English proficiency country in the Education First English Proficiency Index report (EFEPI, 2023).

In comparison, in Malaysia, English is more commonly used as a second language (Campbell, 2018; Thirusanku & Yunus, 2014), with Malaysian citizens speaking a variety of L1s (e.g. Malay, Mandarin, Cantonese, Tamil). Modelled after the *Razak Report 1956*, the Malaysia bilingual education policy enforces English as a compulsory subject in all primary and secondary schools. Although formal English education starts at age 7, most Malaysian children start learning the national second language in pre-schools, from as young as 4–6 years old (Mohamed Salleh et al., 2020). Compared to China, English is more actively used as a lingua franca among the multi-ethnic Malaysian population and is frequently encountered in many settings for different purposes (e.g. media content, sign boards, product labels). This high prevalence is especially true for Malaysians who live in the urbanized areas, such as the Klang Valley region, where switching between English and L1 in different settings (e.g. at home, in workplace and classroom) is used as a means to establish solidarity and rapport with other speakers (Pillai & Ong, 2018). It is normal for younger generations of Malaysian ESL speakers to have medium to high proficiency level in English, and the country was ranked 25th among the 113 countries for its high English proficiency level in the EFEPI's (2023) report.

LX anxiety and its linguistic variables

In previous research, English speaker groups from both China (e.g. Wang, 2022; Wei & Yodkamlue, 2012) and Malaysia (e.g. Chin, Ting, & Yeo, 2016; Heng, Abdullah, & Yusof, 2012; Lim & Budin, 2014) have generally reported experiencing at least a medium level of classroom-specific LX[1] anxiety. However, there are not many studies which have explicitly compared these LX anxiety experiences between the two environments, although the usage, experience, and motivation to speak English of the two groups differ substantially. There are several reasons for this gap in the previous literature. First, it is difficult to make an absolute distinction between foreign and second languages as these terms have often been used interchangeably in previous LX anxiety research (see Horwitz, 2010 and Teimouri et al., 2019 for review). Second, it is hard to distinguish between an EFL or ESL environment solely based on the language status in each country because the English-speaking environments can differ greatly even within countries and between social groups (e.g. rural versus urban locations; see Michieka, 2009). Sometimes, motivation and experience in using English can be more important than geographical location.

One study by Wilang and Singhasiri (2017) investigated the difference in language anxiety between EFL and ESL speakers. According to the authors, Thai students (classified as EFL speakers) reported higher anxiety levels than the international student group (a mix of EFL and ESL speakers from various countries) when using English outside the classroom, primarily due to language-decoding difficulties such as unfamiliar accents, vocabulary, and sentence structures. The higher anxiety observed among the Thai EFL students was attributed to English not being a widely used or familiar language in the EFL country (Wilang & Singhasiri, 2017). Another related study by Zulkifli (2007) compared classroom language anxiety between China EFL speakers and Malaysia ESL speakers who were all studying in Malaysia. He found that China EFL speakers reported higher anxiety

levels than Malaysia ESL speakers due to fear of negative evaluations. The China EFL speakers were more anxious about judgements made by local peers and teachers, possibly because they perceived greater pressure to integrate and accommodate to the unfamiliar English environment and local English variety spoken there. Looking at the two studies, EFL speakers appear to experience higher LX anxiety than ESL speakers regardless of the English-speaking environment. However, the influence of the English-speaking environment on LX anxiety remains unclear, as the target speaker groups differ substantially across the two contexts. For example, EFL speakers may feel more anxious in settings where high English proficiency is expected, but less so when interacting in EFL environments with lower proficiency expectations.

Given the different experiences in learning and using the English language between EFL and ESL environments, the linguistic variables, such as English proficiency, self-perceived English competence, and frequency of English usage, of the two groups of speakers would arguably be different. These linguistic variables are often measured as indicators of language learners' competency or experience in the new language. Past studies have consistently found negative relationships between LX anxiety and these linguistic factors (Jiang & Dewaele, 2020; Sampasivam & Clément, 2014; Teimouri, Goetze, & Plonsky, 2019). Jiang and Dewaele (2020) showed that these three linguistic factors are important in contributing to the anxiety of EFL speakers in China. Self-perceived LX competence was the strongest predictor, accounting for 18.9% of the variance, followed by frequency of LX usage (1.2%) and LX proficiency (0.3%) in a multiple regression. However, it remains to be tested whether these linguistic factors play the same role in the LX anxiety of ESL speakers, such as those in Malaysia, as these may not be the primary factors causing the LX anxiety experienced by these moderately-to-highly proficient English users who have a wider experience of learning and using ESL in many aspects of their daily life.

The present study

Empirical comparisons of LX anxiety between EFL and ESL contexts remain scarce, despite clear differences in English exposure. Notably, little is known about how ESL speakers report their LX anxiety, in relation to EFL speakers with comparable linguistic backgrounds and academic conditions. This study addresses this gap by comparing LX anxiety and its linguistic factors between EFL and ESL environments, focusing on EFL and ESL students from the Malaysia and China campuses of the same EMI institution. Sampling from two campuses of the same university enabled control over baseline English competence, recent academic English exposure, and L1 interference, ensuring robust cross-context comparisons. This research provides the first empirical comparison of LX anxiety and related linguistic factors – such as LX proficiency, self-perceived LX competence, and frequency of LX use – between EFL (China) and ESL (Malaysia) learners, offering insights into whether English language education should be standardised or adapted to local contexts.

The primary aim was to investigate whether these two groups of participants would rate their anxiety levels similarly, in response to the anxiety-provoking scenarios of using English as a lingua franca in out-of-class communicative settings, as described in the Anxiety Scale in Spoken Englishes as a Lingua Franca (ASSELF; Wilang & Singhasiri,

2017). An ESL environment is more likely to provide language practice opportunities through natural conversations and to encourage greater motivation and more positive attitudes towards learning and using the target language (Hussain, Salam, & Farid, 2020). Such differences could further contribute to better mastery of the target language in an ESL environment compared to in an EFL environment. Therefore, we hypothesized that the LX anxiety experienced by speakers from an ESL academic environment will be lower and fueled less by linguistic factors, compared to speakers from an EFL academic environment.

Moreover, although differences in English exposure between EFL and ESL contexts may seem self-evident, few studies have examined them directly. We consider it essential not to rely on such assumptions, especially when the current study's participants would be recruited from the same EMI institution. Therefore, to establish the fundamental differences in English experience between Malaysian and Chinese LX speakers, we collected and compared the detailed linguistic profile data of both groups. This included age of English acquisition, English proficiency (as estimated by LexTALE, an English lexical test; Lemhöfer & Broersma, 2012), self-perceived English competence (through a self-rated questionnaire adapted from Eslami & Fatahi, 2008), and frequency of English usage in different settings (i.e. in general, at home, with friends, with strangers, at school, and during leisure activities). We predicted that Malaysia LX speakers would report higher English proficiency, self-perceived English competence, and frequency of English usage as compared to China LX speakers, given the more accessible learning and language use opportunities in their immediate living environment. We then examined how these variables contributed to LX anxiety and whether the impact of these factors differed between the two groups using regression analyses.

Below are the three research questions addressed in this study:

(1) What are the differences in English proficiency, self-perceived English competence, and frequency of English usage between the Malaysia and China LX speakers?
(2) Do the Malaysia and China LX speakers experience LX anxiety differently?
(3) Do English proficiency, self-perceived English competence, and frequency of English usage of Malaysia and China LX speakers predict their LX anxiety levels?

Methods

Participants

For the recruitment criteria, participants had to be a student enrolled at the Malaysia or China campus of the same international EMI university, had acquired English after their L1 (Mandarin or other Chinese language), and had no more than 1 year of residence in an English-speaking country. According to the G power analysis, at least 118 participants are needed for a two-ways mixed ANOVA to be conducted with power = .80, alpha = .05, numerator = 2, number of groups = 6, and a medium effect size (Cohen's f = .29 based on Wilang & Singhasiri, 2017). A total of 203 participants were recruited. One-hundred participants (29 males, 71 females) were recruited from Malaysia, and 103 (20 males, 83 females) from China. Participants were on average 20.02 years old (SD = 1.68), and age

Table 1. Number of participants who had attended schools that used different mediums of instruction in each schooling stage.

Medium of Instruction	Preschool		Primary		Middle	
	Malaysia	China	Malaysia	China	Malaysia	China
English	50	2	10	1	50	9
Mandarin	48	98	87	100	29	94
Cantonese	1	2	–	1	–	–
Malay	–	–	3	–	21	–
No information	1	1	–	1	–	–

did not differ significantly between the two groups ($p = .36$). All participants spoke Mandarin as their L1, except a few who spoke Chinese dialects, such as Cantonese ($n = 10$), Hakka ($n = 1$), Hokkien ($n = 1$), Chongqingnese ($n = 1$), Gan ($n = 1$), Sichuanese ($n = 1$), and Huzhouese ($n = 1$). Those who had stayed in any English-speaking countries for more than 1 year were excluded to ensure that their English experience was limited to their home country language environment and not affected by long-term interactions with English speakers from other foreign countries (cf., Thompson & Lee, 2014). For their university admission, all students met the English requirement of their universities with an IELTS band score of at least 6.0. This requirement indicated that our participants were at least *competent* English users, according to the IELTS (n.d) band score descriptions. All participants had received at least 10 years (11 for Malaysia LX speakers) of compulsory formal English education before advancing to their tertiary education (for more details about the medium of instruction used in each schooling stage of the participants, see Table 1).

Materials

An online survey was used to measure participants' (a) LX anxiety, (b) English proficiency, (c) self-perceived English competence, and (d) frequency of English usage. Details of the instruments incorporated in the questionnaire are reported below.

LX anxiety

Anxiety Scale in Spoken Englishes as a Lingua Franca (ASSELF; Wilang & Singhasiri, 2017); assesses LX anxiety relating to three components: namely, interlocutor-induced difficulties (i.e. anxiety caused by reactions or questioning from conversation partners), language-decoding difficulties (i.e. difficulties in processing and comprehending words from spoken speech), and apprehension over interlocutors (i.e. worry about the proficiency, accentedness, and quantity of other interlocutors). The scale consists of 15 items and uses a 5-point Likert scale that ranges from one (*not anxious at all*) to five (*extremely anxious*). The overall score is computed by averaging scores across all 15 items.

English proficiency

Inconsistency in language proficiency and achievement measures used in linguistics research has always been a challenge for cross-study comparisons (Brown, Plonsky, & Teimouri, 2018; Larson-Hall & Plonsky, 2015). For a standardized and objective cross-group comparison, the Lexical Test for Advanced Learners of English (LexTALE) was

used to provide an estimate of participants' present English proficiency. LexTALE is a quick and easy online lexical test with 60 trials that sum up to a 100% score. It provides a reliable indication of general English proficiency for moderate to advanced LX speakers that correlates well with translation performance and other extensive English proficiency tests (e.g. Quick Placement Test and TOEIC test; Lemhöfer & Broersma, 2012).

Self-perceived English competence

An adapted survey with 12 items (Eslami & Fatahi, 2008) was used to measure self-perceived English competence in four language-specific skill domains (speaking, listening, reading, and writing). The survey uses a 5-point Likert scale ranging from one (*strongly disagree*) to five (*strongly agree*) on 12 affirmative statements, such as 'I know how to maintain a conversation with an English speaker'. Participants' self-perceived English competence was computed by averaging the scores across all 12 items, in addition to the average scores computed for each of the four language-specific skills.

Frequency of English usage

Questions for this measure were incorporated in the demographic information section of the survey. Participants rated how often they use English on a scale of 0–100% (Levine, 2003) with different groups of people and in different settings: (a) in general, (b) at home, (c) in social settings (e.g. with friends), (d) in other places (e.g. with strangers), (e) in academic settings (e.g. school), and (f) during leisure activities (also used in Clément, Baker, & MacIntyre, 2003; Dewaele, Petrides, & Furnham, 2008; Garcia de Blakeley, Ford, & Casey, 2017). A higher percentage reflects a higher frequency of English usage.

Procedure

Participants were first asked to provide their background information, such as age, gender, L1, age of English acquisition, duration of stay in an English-speaking country, course of study, year of study, number of languages known, frequency of English usage in different settings, medium of instruction in different stages of schooling (i.e. preschool, primary school and middle school), and an open-ended question for participants to describe any unique English learning experience they might have had. Participants then completed the ASSELF questionnaire, self-perceived English competence questionnaire, and LexTALE test sequentially.

Results

Before conducting the main analyses, the internal reliability of the questionnaires used was examined through Cronbach's alpha. Both ASSELF and self-perceived English competence questionnaires revealed good internal reliability, with $\alpha = 0.90$, 95% CI = 0.87, 0.92, and $\alpha = 0.91$, 95% CI = 0.89–0.92, respectively.

Independent-samples t-tests were conducted to compare the age of English acquisition, English proficiency, self-perceived English competence, and frequency of English usage between Malaysia and China LX speakers. We subsequently performed a 2×3 mixed-design ANOVA to compare the LX anxiety level between the two groups of speakers across the three components in ASSELF (i.e. interlocutor-induced difficulties,

language-decoding difficulties, and apprehension over interlocutors). Finally, multiple regression analyses were conducted to examine the effects of linguistic factors on LX anxiety level.

Differences in linguistic factors between Malaysia and China LX speakers

Results showed an earlier age of English acquisition, higher English proficiency (as estimated by LexTALE scores), higher self-perceived English competence, and higher frequency of English usage in Malaysia LX speakers than China LX speakers (see Table 2). Further analyses showed that Malaysia LX speakers reported a significantly higher self-perceived English competence in all four language specific skills (i.e. reading, writing, listening, and speaking; see Table 3) and a higher frequency of English usage in different settings (i.e. at home, with friends, with strangers, at school, and during leisure activities; see Table 4) than China LX speakers.

Table 2. Comparisons of average age of English acquisition, LexTALE score, average self-perceived English competence, and frequency of English usage in general between Malaysia and China LX speakers.

	Malaysia		China				95% CI	
	M	(SD)	M	(SD)	$t(201)$	Cohen's d	LL	UL
AoA	5.31	(2.05)	7.18	(2.12)	−6.37**	−0.89	−1.18	−0.61
LexTALE	80.77	(11.85)	65.18	(10.79)	9.81**	1.38	1.07	1.68
SPC	4.03	(0.58)	3.47	(0.61)	6.65**	0.93	0.64	1.22
FOU	58.80	(20.80)	50.20	(18.10)	3.15*	0.44	0.16	0.72

Note. AoA = Age of English acquisition; SPC = Self-perceived English competence; FOU = Frequency of English usage.
*$p < .01$. **$p < .001$.

Table 3. Comparison of self-perceived language specific skills between Malaysia and China LX speakers.

	Malaysia		China				95% CI	
	M	(SD)	M	(SD)	$t(201)$	Cohen's d	LL	UL
Speaking	3.93	(0.71)	3.46	(0.82)	4.32**	0.61	0.32	0.89
Listening	4.19	(0.64)	3.40	(0.76)	8.00**	1.12	0.83	1.42
Reading	4.01	(0.73)	3.62	(0.76)	4.22**	0.59	0.31	0.87
Writing	3.99	(0.66)	3.41	(0.74)	5.84**	0.82	0.53	1.11

**$p < .001$.

Table 4. Comparison of frequency of English usage between Malaysia and China LX speakers.

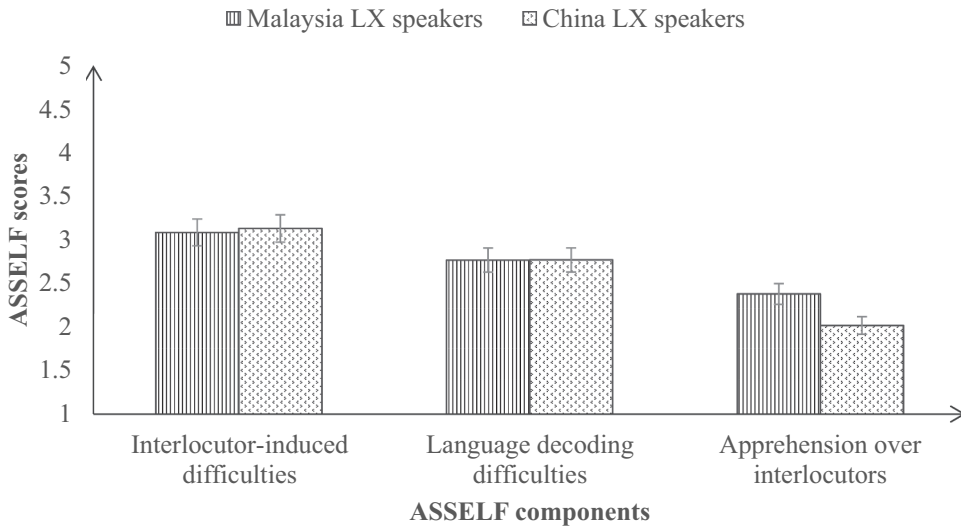|	Malaysia		China				95% CI	
	M	(SD)	M	(SD)	$t(201)$	Cohen's d	LL	UL
Home	31.60	(25.70)	9.90	(13.30)	7.59**	1.07	0.77	1.36
Friends	58.40	(23.10)	25.30	(17.30)	11.58**	1.63	1.31	1.94
Strangers	58.30	(26.70)	12.50	(14.70)	15.22**	2.14	1.79	2.48
School	87.00	(15.20)	79.80	(19.40)	2.95*	0.41	0.14	0.69
Leisure	66.80	(27.10)	39.10	(24.40)	7.64**	1.07	0.78	1.37

*$p < .01$. **$p < .001$.

Figure 1. Interaction effect between ASSELF components and speaker groups. *Note.* Error bars represent standard error.

Differences in LX anxiety between Malaysia and China LX speakers

A 2×3 mixed-design ANOVA was conducted to compare LX anxiety level between Malaysia and China LX speakers across the three ASSELF components (i.e. interlocutor-induced difficulties, language-decoding difficulties, and apprehension over interlocutors). There was no main effect of speaker groups, $F(1, 201) = 1.05$, $p = .31$, $\eta_p^2 = .01$, 90% CI = 0–0.034.

There was, however, a significant main effect of ASSELF components after applying a Greenhouse-Geisser correction, $F(1.80, 361.65) = 140.40$, $p < .001$, $\eta_p^2 = .41$, 90% CI = 0.35–0.46. Referring to Figure 1, the Bonferroni-corrected post-hoc analyses showed that all participants rated interlocutor-induced difficulties to be more anxiety-provoking than language decoding difficulties, $p < .001$, $d = 0.39$, 95% CI = 0.23–0.56, and apprehension over interlocutors, $p < .001$, $d = 1.06$, 95% CI = 0.86–1.26. Participants also rated language-decoding difficulties to be significantly more anxiety-provoking than apprehension over interlocutors, $p < .001$, $d = 0.66$, 95% CI = 0.49–0.84.

In addition, the analysis revealed a significant interaction effect between ASSELF components and speaker groups, $F(1.80, 361.65) = 8.23$, $p < .001$, $\eta_p^2 = .039$, 90% CI = 0.011–0.075. When comparing speaker groups for each ASSELF component, there was no significant difference between Malaysia ESL and China EFL speakers in language-processing difficulties ($p = 1.00$) and apprehension over interlocutor ($p = 1.00$) components (see Figure 1). However, Malaysia LX speakers reported a higher anxiety rating for the apprehension over interlocutor component as compared to China LX speakers (see Figure 1), $t(201) = 2.99$, $p = .045$, $d = 0.42$, 95% CI = 0.0003–0.84. In particular, Malaysia LX speakers found speaking to a proficient English speaker, $t(201) = 2.16$, $p = .032$, $d = 0.30$, 95% CI = 0.026–0.58, and an interlocutor with a native-like accent, $t(201) = 2.80$, $p = .006$, $d = 0.39$, 95% CI = 0.12–0.67, to be more anxiety-provoking than China LX speakers.

Table 5. Multiple regression analyses for all participants, China LX speakers only, and Malaysia LX speakers only.

Speaker Group	B	β	t	p	F	df	p	R^2
All participants ($N = 203$)								
Overall model					8.34	4, 198	<.001	0.14
Intercept	4.36							
FOU	−0.26	−0.07	−1.01	.31				
SPC	−0.42	−0.39	−4.67	<.001				
LexTALE	$2.23e^{-4}$	0.004	0.05	.96				
Group[a]	0.30	0.21	2.62	.009				
China ($n = 103$)								
Overall model					3.41	3, 99	0.02	0.09
Intercept	3.82							
FOU	0.07	0.02	0.18	.85				
SPC	−0.34	−0.32	−3.10	.002				
LexTALE	0.002	0.03	0.31	.75				
Malaysia ($n = 100$)								
Overall model					8.20	3, 96	<.001	0.20
Intercept	5.19							
FOU	−0.43	−0.12	−1.07	.29				
SPC	−0.50	−0.38	−3.23	.002				
LexTALE	$-4.19e^{-4}$	−0.006	−0.06	.95				

Note. FOU, frequency of English usage in general; SPC, self-perceived English competence.
[a]Dummy-coded participant group: 0 = China, 1 = Malaysia.

Influence of linguistic factors on LX anxiety

Three multiple regression analyses were conducted to examine how English proficiency, self-perceived English competence, and frequency of English usage predicted LX anxiety of all participants and of Malaysia LX speakers and China LX speakers separately. The predictors included were (a) dummy-coded participant group (0 indicates China and 1 indicates Malaysia); (b) LexTALE score, (c) average self-perceived English competence rating (SPC), and (d) frequency of English usage in general (FOU), whereas the criterion variable was the ASSELF rating. The pre-analysis check revealed significant correlations between ASSELF and SPC ($r = −.32$, $p < .001$) and between ASSELF and FOU ($r = −.18$, $p = .01$), but not between ASSELF and LexTALE ($r = −.10$, $p = .16$). There was no multi-collinearity issue observed among the predictors.

Overall, only dummy-coded participant group and self-perceived English competence were significant predictors of ASSELF rating. Taking China LX speakers as the reference group, Malaysia LX speakers were more likely to report higher ASSELF ratings. Participants also reported experiencing less LX anxiety with higher self-perceived English competence in general. Further, regression analyses revealed that, among the sub-components of self-perceived competence (i.e. speaking, listening, reading, and writing), only self-perceived *speaking* competence ($β = −0.31$, $p = .002$) was significant in predicting ASSELF ratings. A similar pattern was observed when we conducted multiple regression analyses separately for Malaysia and China LX speaker groups (see Table 5).

Discussion

This study set out to examine LX anxiety and contributing linguistic factors among students from the Malaysia and China campuses of an international EMI university.

Despite similar length (10–11 years) of formal English instruction, our study showed systematic differences in their English LX experience, indicating the importance of not assuming uniform LX experience and anxiety across ESL and EFL speaker groups. The Malaysia LX speakers, on average, scored higher on the LexTALE, reported higher self-perceived English competence, and had higher frequency of English usage compared to the China LX speakers. These differences are meaningful, considering that all participants had Chinese as an L1 and were studying in a similar type of English academic setting. As English is more commonly used in Malaysia as a lingua franca for daily interactions, especially in urban areas (Campbell, 2018; Thirusanku & Yunus, 2014), the Malaysia LX speakers reported using English more frequently in all settings examined, such as at home, with friends, with strangers, at school, and during leisure activities, compared to the China LX speakers. Daily English usage is the norm for Malaysia LX speakers, and some of their common multilingual practices include code-switching, code-mixing, and using lexical shifts and localized cultural expressions in daily conversations (Pillai & Ong, 2018). In contrast, because English is not a commonly used language in China, the China LX speakers' exposure to the language was more limited to academic purposes (e.g. passive listening in lectures) or through self-sought entertainment, such as English TV shows or songs (see Table 4).

Of our participants, 71.43% reported being slightly or moderately anxious when using English in an out-of-class context (i.e. ASSELF ratings between 1.8–3.4; based on the classification by Wilang & Singhasiri, 2017), in line with past findings (e.g. Chin, Ting, & Yeo, 2016; Heng, Abdullah, & Yusof, 2012; Lim & Budin, 2014; Wang, 2022; Wei & Yodkamlue, 2012). Interestingly, while Wilang and Singhasiri (2017) found language-decoding difficulties (e.g. incomprehensible accents, words, and sentences) the most anxiety-provoking factor, our participants uniformly rated interlocutor-induced difficulties (e.g. difficult and unfamiliar topics, questions, and negative responses received from the interlocutors) to be the most anxiety-provoking factor. Anxiety about interlocutor-induced difficulties can be attributed to LX speakers' wariness of the uncertainties that might arise during an LX conversation. Feeling anxious when encountering uncertainty is common, given people's tendency to overestimate a threat's possibility and severity (Gu, Gu, Lei, Li, & Pan, 2020). The unanticipated conversational difficulties induced by interlocutors can result in delays in responding fluently and so leave an impression of incompetency. LX speakers in this situation could then develop a fear of negative evaluation (e.g. of giving unfavorable impressions, having grammatical mistakes pointed out, etc.; see Aydin, 2008). In comparison, language-decoding difficulties and apprehension over interlocutor (e.g. other interlocutors being more intimidating with high proficiency and accents from English as L1 countries) factors were less anxiety-provoking to our participants, who were moderate to advanced English speakers. As they were students from an international EMI university, they presumably had the opportunities to interact with proficient English speakers (e.g. international classmates and lecturers) with different accents on a daily basis. Therefore, their confidence in comprehending English speech was much higher.

One unexpected and interesting result of our study, however, is that, even with the Malaysia LX speakers' advantages, such as higher English exposure and higher proficiency in general, they still reported greater anxiety than the China LX speakers in the apprehension over interlocutor factor, especially if the interlocutor was a proficient

English speaker or spoke with an accent from a country where English is the L1. This surprising result could possibly be explained by differences between Malaysia and China in socio-linguistic attitudes and expectations. LX anxiety can arise when there is a general negative societal attitude towards a particular English variety used (e.g. Malaysian English) and its speakers, a phenomenon known as 'Language Attitude Anxiety' (Attanayake, 2019). Many Malaysians deem the use of colloquial Malaysian English unsuitable or unprofessional for international communication (Ismail, Ismail, & Ramakrishnan, 2007; Leo & David, 2023; Lin, Choo, Kasuma, & Ganapathy, 2018), and this perception could be true of our participants, who were composed mainly of students from backgrounds affluent enough to permit them to study at an EMI university. Fearing such negative evaluation of their spoken English, Malaysia LX speakers may experience more pressure to perform, especially when they have to interact with people who speak with accents from L1 English countries or who appear to have higher English proficiency. English L1 speakers are therefore potentially more intimidating because they could be perceived as gatekeepers of a so-called 'proper' or 'standard' English. In addition, English L1 speakers in Malaysia are also more likely to have a higher socio-economic status and to live in urbanized areas of the country (Pillai & Ong, 2018), which could be a further potential cause of feelings of inferiority and anxiety in LX speakers when interacting with them.

Although English is also considered an important global language in China, expectations among China LX speakers to speak fluent and standard English are generally lower (Pan & Block, 2011; Zhang & Xiao, 2006). English communication in China is often limited to the classroom setting. Opportunities for China LX speakers to use English for communication outside the classroom usually occur only with international interlocutors (e.g. foreign tourists or professional contacts) who do not speak Mandarin. Thus, scenarios where the other person is a proficient English speaker or has a native-like accent may not have seemed as unexpected or unusual to the Chinese LX speakers, so interacting with proficient English L1 speakers may cause less anxiety among the China LX speakers. In contrast, Malaysia LX speakers' encounters with English speakers are far less predictable in terms of their interlocutor's level of proficiency and range of accents. This speculation, however, remains to be tested and could be explored in follow-up studies by interviewing these LX speakers about their English use expectations.

Among the linguistic factors explored, self-perceived competence (particularly in speaking) was the only significant variable that predicted LX anxiety for both Malaysia and China LX speakers. Most ASSELF items assess LX anxiety evoked in real-life conversation scenarios, and not feeling confident while speaking an LX could lead to higher LX anxiety. This negative relationship between LX anxiety and self-perceived speaking ability has been shown consistently in the literature (e.g. Kitano, 2001; Liu & Chen, 2013; MacIntyre, Noels, & Clément, 1997). Compared to other language skills (i.e. listening, writing, and reading), the confidence to produce verbal response determines how anxious one feels in a reciprocal conversation where verbal exchanges and interactions are involved. Besides, the significance of self-perceived competence (rather than actual language competence) in predicting LX anxiety further suggests that LX anxiety associates with identity-based rather than competence-based constructs (Jiang & Dewaele, 2020; Stroud & Wee, 2006). Participants in the present study had a restricted range of middle to high English proficiency (see

LexTALE scores in Table 2). With increased language experience and proficiency, LX speakers might develop higher expectations about their language performance and greater pressure to perform well, and thus an associated increase in their LX anxiety was observed. Other research supports this, showing proficiency accounts for little variance in LX anxiety among high-achieving learners (Onwuegbuzie, Bailey, & Daley, 1999) and is more relevant in low-immersion than high-immersion contexts (Pappamihiel, 2002). These results suggested that improving language proficiency might not be a straightforward way to reduce LX anxiety for moderate to proficient LX speakers. Instead, other extra-linguistic factors such as internal belief, attitude, and competitiveness might better determine the level and nature of individual LX anxiety.

One limitation of the study could be that the ASSELF and the objective language competence measure, LexTALE, target different language domains: the ASSELF primarily measures conversational anxiety (i.e. speaking and listening anxiety), whereas the LexTALE assesses vocabulary knowledge (i.e. reading skills). Perhaps a language test that assesses speaking and listening ability might better inform LX anxiety as assessed by the ASSELF. This also explains why frequency of usage (which includes both speaking and listening) did not predict LX anxiety either. Regardless, the current study still suggests that language proficiency (measured as vocabulary knowledge through the LexTALE) is not predictive of conversational anxiety (measured by the ASSELF).

The pedagogical implications of the study are that language educators and researchers could focus on boosting self-perceived LX confidence to alleviate LX anxiety. This increase in confidence can be achieved if LX speakers perceive control over an LX situation. For instance, Forbes and Fisher (2018) showed that language confidence interventions are feasible through practicing metacognitive strategies, such as preparation strategies (e.g. imagine possible conversation topics and predict potential vocabulary and grammar to be used), monitoring strategies (e.g. pay attention to own LX speech clarity and improving pronunciation so that it is clear to other interlocutors), and evaluation strategies (e.g. always get feedback and reflect on own LX speech).

Conclusions

Being moderate to highly proficient LX users does not spare speakers from experiencing LX anxiety. A good proportion of our moderate-to-highly proficient participants (22.17%) still reported being very or extremely anxious when conversing in English. The differences in the linguistic factors (i.e. English proficiency, self-perceived English competence, and frequency of English usage) serve well to differentiate between LX speakers from ESL and EFL environments. Despite reporting higher English proficiency, self-perceived English competence and frequency of English usage, Malaysia LX speakers were found to be more anxious than China LX speakers when contemplating scenarios of having to speak to a proficient English L1 speaker. Judging by these differences in LX anxiety experienced, we recommend LX anxiety interventions and related research to be carefully tailored to the socio-demographic group studied. Our findings also suggest that more attention should be given to examining how to enhance self-perceived (speaking) competence to combat LX anxiety.

Note

1. Given the variety of terms used in different studies to refer to language anxiety among groups of non-L1 users of English, we will simplify by using the term LX to refer to any language acquired after the L1, including foreign, second, and other languages (Dewaele, 2018).

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Kai Hao Chong 🔟 http://orcid.org/0000-0002-7817-7442
Jessica Price 🔟 http://orcid.org/0000-0001-7200-8691
Derek Irwin 🔟 http://orcid.org/0000-0003-0342-6958
Margaret Gillon Dowens 🔟 http://orcid.org/0000-0002-3422-3849
Christine Xiang Ru Leong 🔟 http://orcid.org/0000-0003-1110-545X

References

Attanayake, A. U. (2019). *Post-colonial curriculum practices in South Asia: Building confidence to speak English*. Routledge. doi:10.4324/9781351129800

Aydin, S. (2008). An investigation on the language anxiety and fear of negative evaluation among Turkish EFL learners. *Asian EFL Journal*, 421–444. https://files.eric.ed.gov/fulltext/ED512266.pdf

Bolton, K., & Graddol, D. (2012). English in China today: The current popularity of English in China is unprecedented, and has been fuelled by the recent political and social development of Chinese society. *English Today*, *28*(3), 3–9. doi:10.1017/S0266078412000223

Brown, A. V., Plonsky, L., & Teimouri, Y. (2018). The use of course grades as metrics in L2 research: A systematic review. *Foreign Language Annals*, *51*(4), 763–778. doi:10.1111/flan.12370

Campbell, J. (2018). English language and an inclusive Malaysia. *3L: The Southeast Asian Journal of English Language Studies*, *24*(3), 206–219. doi:10.17576/3l-2018-2403-15

Chin, V., Ting, H. L., & Yeo, J. Y. (2016). Investigating English language anxiety among UiTM sarawak undergraduates. *Journal of Creative Practices in Language Learning and Teaching*, *4*(1), 50–62. Retrieved from https://ir.uitm.edu.my/id/eprint/30228/1/AJ_VICKY%20CHIN%20CPLT%20K%2016.pdf

Clément, R., Baker, S. C., & MacIntyre, P. D. (2003). Willingness to communicate in a second language: The effects of context, norms, and vitality. *Journal of Language & Social Psychology*, *22*(2), 190–209. doi:10.1177/0261927x03022002003

Dewaele, J. M. (2018). Why the dichotomy 'L1 versus LX user' is better than 'native versus non-native speaker'. *Applied Linguistics*, *39*(2), 236–240. doi:10.1093/applin/amw055

Dewaele, J. M., Petrides, K. V., & Furnham, A. (2008). Effects of trait emotional intelligence and sociobiographical variables on communicative anxiety and foreign language anxiety among adult multilinguals: A review and empirical investigation. *Language Learning*, *58*(4), 911–960. doi:10.1111/j.1467-9922.2008.00482.x

EFEPI. (2023). *EF English proficiency index*. Retrieved from https://www.ef.com/wwen/epi/

Eslami, Z. R., & Fatahi, A. (2008). Teachers' sense of self-efficacy, English proficiency, and instructional strategies: A study of nonnative EFL teachers in Iran. *Tesl-Ej*, *11*(4), 1–19. Retrieved from https://files.eric.ed.gov/fulltext/EJ898136.pdf

Forbes, K., & Fisher, L. (2018). The impact of expanding advanced level secondary school students' awareness and use of metacognitive learning strategies on confidence and proficiency in foreign

language speaking skills. *Language Learning Journal*, *46*(2), 173–185. doi:10.1080/09571736.2015.1010448

Garcia de Blakeley, M., Ford, R., & Casey, L. (2017). Second language anxiety among Latino American immigrants in Australia. *International Journal of Bilingual Education and Bilingualism*, *20*(7), 759–772. doi:10.1080/13670050.2015.1083533

Gu, Y., Gu, S., Lei, Y., Li, H., & Pan, F. (2020). From uncertainty to anxiety: How uncertainty fuels anxiety in a process mediated by intolerance of uncertainty. *Neural Plasticity*, *2020*, 1–8. doi:10.1155/2020/8866386

Heng, C. S., Abdullah, A. N., & Yusof, N. B. (2012). Investigating the construct of anxiety in relation to speaking skills among ESL tertiary learners. *3L: Southeast Asian Journal of English Language Studies*, *18*(3), 155–166. Retrieved from http://journalarticle.ukm.my/5567/1/18_3_13_ChanSweeHeng.pdf

Horwitz, E. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics*, *21*, 112–126. doi:10.1017/S0267190501000071

Horwitz, E. K. (2010). Foreign and second language anxiety. *Language Teaching*, *43*(2), 154–167. doi:10.1017/S026144480999036X

Hussain, M. S., Salam, A., & Farid, A. (2020). Students' motivation in English language learning (ELL): An exploratory study of motivation-al factors for EFL and ESL adult learners. *International Journal of Applied Linguistics and English Literature*, *9*(4), 15–28. doi:10.7575/aiac.ijalel.v.9n.4p.15

IELTS. (n.d.). *How IELTS is scored?* Retrieved from https://www.ielts.org/for-test-takers/how-ielts-is-scored

Ismail, N., Ismail, N., & Ramakrishnan, K. M. (2007). Malaysian English versus standard English: Which is favored. In *MARA University of Technology (Johor) Academic Conference 2007* (pp. 1–11). Johor, Malaysia.

Jiang, Y., & Dewaele, J. M. (2020). The predictive power of sociobiographical and language variables on foreign language anxiety of Chinese university students. *System*, *89*, e102207. doi:10.1016/j.system.2020.102207

Kitano, K. (2001). Anxiety in the college Japanese language classroom. *Modern Language Journal*, *85*(4), 549–566. doi:10.1111/0026-7902.00125

Larson-Hall, J., & Plonsky, L. (2015). Reporting and interpreting quantitative research findings: What gets reported and recommendations for the field. *Language Learning*, *65*(S1), 127–159. doi:10.1111/lang.12115

Lemhöfer, K., & Broersma, M. (2012). Introducing LexTALE: A quick and valid lexical test for advanced learners of English. *Behavior Research Methods*, *44*(2), 325–343. doi:10.3758/s13428-011-0146-0

Leo, A. R., & David, M. K. (2023). Malaysian creole: An attitudinal analysis of private university undergraduates. *Asian Englishes*, *25*(3), 296–310. doi:10.1080/13488678.2021.1926646

Levine, G. S. (2003). Student and instructor beliefs and attitudes about target language use, first language use, and anxiety: Report of a questionnaire study. *Modern Language Journal*, *87*(3), 343–364. doi:10.1111/1540-4781.00194

Li, Q. (2014). Differences in the motivation of Chinese learners of English in a foreign and second language context. *System*, *42*, 451–461. doi:10.1016/j.system.2014.01.011

Lim, H. L., & Budin, M. (2014). Investigating the relationship between English language anxiety and the achievement of school based oral English test among Malaysian form four students. *International Journal of Learning, Teaching and Educational Research*, *2*(1), 66–79. Retrieved from http://ijlter.org/index.php/ijlter/article/view/32/9

Lin, D. T. A., Choo, L. B., Kasuma, S. A. A., & Ganapathy, M. (2018). Like that lah: Malaysian undergraduates' attitudes towards localised English. *GEMA Online Journal of Language Studies*, *18*(2), 80–92. doi:10.17576/gema-2018-1802-06

Liu, H. J., & Chen, T. H. (2013). Foreign language anxiety in young learners: How it relates to multiple intelligences, learner attitudes, and perceived competence. *Journal of Language Teaching and Research*, *4*(5), 932–938. doi:10.4304/jltr.4.5.932-938

MacIntyre, P. D., & Gregersen, T. (2012). Affect: The role of language anxiety and other emotions in language learning. In S. Mercer, S. Ryan, & M. Williams (Eds.), *Psychology for language learning* (pp. 103–118). Palgrave Macmillan. Retrieved from https://link.springer.com/chapter/10.1057/9781137032829_8 .

MacIntyre, P. D., Noels, K. A., & Clément, R. (1997). Biases in self-ratings of second language proficiency: The role of language anxiety. *Language Learning*, *47*(2), 265–287. doi:10.1111/0023-8333.81997008

MacIntyre, P., & Gardner, R. (1994). The effects of induced anxiety on three stages of cognitive processing in computerized vocabulary learning. *Studies in Second Language Acquisition*, *16*(1), 1–17. doi:10.1017/s0272263100012560

Michieka, M. M. (2009). Expanding circles within the outer circle: The rural kisii in Kenya. *World Englishes*, *28*(3), 352–364. doi:10.1111/j.1467-971X.2009.01597.x

Ministry of Education China. (2021, June 7). *MOE holds press conference on status of Chinese language in China and the World [press release]*. Retrieved from http://en.moe.gov.cn/news/press_releases/202106/t20210616_538404.html

Mohamed Salleh, R. T. A., Mohammad Lotfie, M., Zamin, A. A., Di Biase, B., & Kawaguchi, S. (2020). Towards a new framework of English language learning in Malaysian preschools. *Southeast Asia Early Childhood Journal*, *9*(2), 144–154. Retrieved from https://ojs.upsi.edu.my/index.php/SAECJ/article/view/3972

Ng, P. & Boucher-Yip, E., (Eds.). (2014). *Local Contextual Influences on Teaching: Narrative Insights from ESL and EFL Professionals*. Cambridge Scholars Publishing.

Onwuegbuzie, A. J., Bailey, P., & Daley, C. E. (1999). Factors associated with foreign language anxiety. *Applied Psycholinguistics*, *20*(2), 217–239. doi:10.1017/S0142716499002039

Pan, L., & Block, D. (2011). English as a "global language" in China: An investigation into learners' and teachers' language beliefs. *System*, *39*(3), 391–402. doi:10.1016/j.system.2011.07.011

Pappamihiel, N. E. (2002). Second language students and English language issues in the mainstream classroom. *Research in the Teaching of English*, *36*(3), 327–355. Retrieved from https://www.jstor.org/stable/40171530

Pillai, S., & Ong, L. T. (2018). English(es) in Malaysia. *Asian Englishes*, *20*(2), 147–157. doi:10.1080/13488678.2018.1459073

Sampasivam, S., & Clément, R. (2014). The dynamics of second language confidence: Contact and interaction. In S. Mercer & M. Williams (Eds.), *Multiple perspectives on the self in SLA* (pp. 23–40). De Gruyter. doi:10.21832/9781783091362-004

Sato, M., & Storch, N. (2022). Context matters: Learner beliefs and interactional behaviors in an EFL vs. ESL context. *Language Teaching Research*, *26*(5), 919–942. doi:10.1177/1362168820923582

Stroud, C., & Wee, L. (2006). Anxiety and identity in the language classroom. *RELC Journal*, *37*(3), 299–307. doi:10.1177/0033688206071311

Teimouri, Y., Goetze, J., & Plonsky, L. (2019). Second language anxiety and achievement: A meta-analysis. *Studies in Second Language Acquisition*, *41*(2), 363–387. doi:10.1017/s0272263118000311

Thirusanku, J., & Yunus, M. M. (2014). Status of English in Malaysia. *Asian Social Science*, *10*(14), 254–260. doi:10.5539/ass.v10n14p254

Thompson, A. S., & Lee, J. (2014). The impact of experience abroad and language proficiency on language learning anxiety. *TESOL Quarterly*, *48*(2), 252–274. doi:10.1002/tesq.125

Wang, X. (2022). An investigation into the factors influencing Chinese undergraduates' English anxiety. *International Journal of Asian Social Science*, *12*(3), 127–134. doi:10.55493/5007.v12i3.4450

Wei, J., & Yodkamlue, B. (2012). The Chinese bouyei college students' classroom anxiety in foreign language learning: A survey study. *International Journal of English Linguistics*, *2*(2), 75–90. doi:10.5539/ijel.v2n2p75

Wei, R., & Su, J. (2015). Surveying the English language across China. *World Englishes*, *34*(2), 175–189. doi:10.1111/weng.12132

Wilang, J. D., & Singhasiri, W. (2017). Out-of-class anxiety in a non-English speaking context and its effects on intelligibility and comprehensibility. *Issues in Educational Research*, *27*(3), 620–638. Retrieved from http://www.iier.org.au/iier27/wilang.html

Wyner, L., & Cohen, A. D. (2015). Second language pragmatic ability: Individual differences according to environment. *Studies in Second Language Learning & Teaching*, *5*(4), 519–556. doi:10.14746/ssllt.2015.5.4.2

Yang, J. (2006). Learners and users of English in China. *English Today*, *22*(2), 3–10. doi:10.1017/S0266078406002021

Zhang, J. L., & Xiao, Y. (2006). Language learning strategies, motivation and EFL proficiency: A study of Chinese tertiary-level non-English majors. *Asian Englishes*, *9*(2), 20–47. doi:10.1080/13488678.2006.10801187

Zulkifli, V. (2007). Language classroom anxiety: A comparative study of ESL learners. *Asian Journal of University Education*, *3*(2), 75–99. Retrieved from https://core.ac.uk/download/pdf/145231244.pdf