Korea TESOL Journal

Volume 15, Number 2
2019

KOREA TESOL
KOTESOL
대한영어교육학회

Korea Teachers of English to Speakers of Other Languages

Implications of Foreign Language Classroom Anxiety to Macau EFL Students

Ut Meng Lei
Beijing Foreign Studies University, Beijing, China
Ka Lon Chan
University of Macau, Macau, China

This study focuses on the influence of foreign language classroom anxiety (FLCA) on EFL learners' performance based on the context of Macau. The study was administered to English learners from three universities and four secondary schools in Macau. An adapted questionnaire from Horwitz et al.'s (1986) Foreign Language Classroom Anxiety Scale (FLCAS) was utilized, with the latent constructs about Communication Apprehension, Fear of Negative Evaluation, Test Anxiety, Language Classroom Anxiety, and Peer Influence. It focuses on both theoretical and practical aspects of the influence that FLCA has on EFL students' academic performance and teacher's pedagogy. The results indicate that learners exhibit a higher-than-average anxiety level that negatively correlates with their assessment. Peers were considered by the participants to be a factor as influential as assessments. Language instructors should hence reconsider how non-test-related factors like learning environment and peers can be better designed and utilized for refining effects in EFL learning.

Keywords: foreign language classroom anxiety, latent constructs, peer influence, five-construct model

INTRODUCTION

It is well known that foreign language classroom anxiety (FLCA) has been found to correlate with language learners' self-perceptions, beliefs, feelings, and behaviors related to the language learning process (Horwitz et al., 1986). Despite the enormous amount of research

conducted on the issue, no studies have been done in Macau, and neither are there studies that investigate the effects of FLCA for both final-year secondary school students and first-year university students. The current study, with respondents coming from the aforementioned two levels of students, aims at investigating how FLCA affects Macau's EFL (English as a foreign language) learning outcomes and performance as well as studying the correlative influence that different constructs of Horwitz et al.'s (1986) Foreign Language Classroom Anxiety Scale (FLCAS) have on each group of respondents.

Horwitz et al. (1986) were first to come up with the concept of foreign language classroom anxiety, which refers to the nervous, worried, and uneasy feelings that make language learners particularly pressured, and hinder students from performing smoothly, specifically in the classroom. They developed the FLCAS, which has since become popular among scholars in various constructs and contexts. The scale includes 33 items associated with scenarios of foreign language learning that fall into three categories: communication apprehension, test anxiety, and fear of negative evaluation. The scale has been modified by a number of scholars in different cultural contexts and to specific language aspects: listening, speaking, reading and writing (Aida, 1994; Cheng et al., 1999; Liu & Jackson, 2008; Mak, 2011; Matsuda & Gobel, 2004; Park, 2012; Young, 1994; Zhao, 2007). Concisely speaking, Aida (1994) adapted the FLCAS to examine the reliability of the constructions of FLCAS so as to investigate anxiety experienced by learners of non-Western languages, and she shed light on Japanese learning in her research. In her study, four constructs are categorized: speech anxiety and fear of negative evaluation, fear of failing the class, and comfortableness in speaking with native Japanese, as well as negative attitudes toward the Japanese class. Moreover, six items (Items 2, 6, 15, 19, 28, and 30) originally in the FLCAS were eliminated from Aida's research design, three of which belonged to the construct of Test Anxiety. She agreed with MacIntyre and Gardner's (1989) explanation that test anxiety could be a common psychological problem of learning and doesn't particularly influence Foreign Language Anxiety. Afterwards, Park (2012) reviewed Aida's study and doubted that the small number of respondents (98 Korean students) could produce fully reliable and a comprehensive interpretation of the data. He compared five different models with one to four constructs (Aida, 2004; Cheng et al., 1999; Liu & Jackson, 2008; Matsuda & Gobel, 2004; Toth, 2008) in his study to test their validity

and identify the most suitable model of FLCAS. In his study, 918 university students of an English conversation course participated. The result showed that a four-construct model gives better-suited indices than models with one to three constructs. The above studies together have given inspiration to the authors of this paper to investigate whether the affective filter could be different in the Macau context and which specific model is to be considered as most appropriate. In short, the authors have come up with different latent construct structures based on the FLCAS of Horwitz et al. (1986) for producing the best analyses in specific contexts.

Regarding various classifications of factors on this widely discussed topic, almost none of the studies specifically point out the effects contributed by peers of language learners. The authors of this study aim to reclassify performance anxiety and give deeper insight into the language anxiety derived from peer influence. In a previous study, Horwitz et al. (1986) noted in their findings that anxious students are worried about being left behind by other students and having their peers comment negatively about them. Therefore, anxious students are prone to being truant to avoid being called on in class to avoid embarrassment. They also stress over learning foreign languages. Shao (2014) stated that cooperative learning can help Chinese students overcome language anxiety by exchanging experiences and understanding learning materials. Based on the above, the authors of this study believe that peers bring about certain effects on foreign language learners. In that study, all the respondents completed an adapted questionnaire from Horwitz et al.'s (1986) FLCAS. Five constructs were investigated: Communication Apprehension, Fear of Negative Evaluation, Test Anxiety, Anxiety of English Learning, and Peer Influence. Among them, Communication Apprehension and Peer Influence were found to play a more vital role in affecting student performance at both secondary and tertiary levels. Additionally, this study reflects on what teachers can do to alleviate the anxiety of students in relation to the Macau context.

METHOD

Participants

There are two main groups of participants in this study: Macau EFL students from secondary schools and from tertiary institutions. There were 531 participants of F.6 (Grade 12 students) from four local EFL schools. They signed a consent form and completed the study's questionnaire survey. The participants consisted of 270 males (50.8%) and 261 females (49.2%). The male–female proportion is roughly 1:1. Their ages ranged from 15 to 20 years old. The four EFL schools are all traditional Chinese-medium schools in which Chinese (Cantonese) is the main lingua franca and medium of instruction. Like most other EFL schools in Macau, students in the four schools speak Chinese, Mandarin and some other dialects of Chinese, in their daily life. Their English competence ranged from A2 level (pre-intermediate) to B1 level (intermediate), with a small number of them reaching the B2 level (upper-intermediate) according to the Common European Framework of Reference for Languages (CEFRL). In their English classes, they study the four necessary skills of English, namely reading, listening, writing, and speaking; and other language features, predominantly grammar or English usage. As F.6 is the exit level of secondary school in Macau, most schools prepare their students for university entrance exams, and so, reading and writing are the two skills that gain the most attention. Besides usual teacher-fronted classes, English classes are sometimes conducted in groups, and students may be asked to give presentations based on a particular topic. Evaluation is mostly done with assignments and summative assessments like quizzes, tests, and end-of-term exams.

For the college participants, there were 74 first-year students from three tertiary institutions of Macau. Among them, 21 were males (28.4%) and 53 were females (71.6%). The large gender gap in the subjects reflects a similar phenomenon in tertiary institutions in Macau. According to the 2018 data (Higher Education Bureau, 2019), 43.5% of students attending a higher institution are males while 56.5% are females. In one of the target institutions of the study, the male:female ratio even reached 1:1.9, hence the large gap.

In the majority of higher education institutions in Macau, it is mandatory for first-year students to take courses related to English

learning. However, the purpose of the instruction varies. In the first two target institutions, students are expected to study English in a professional context, while in the third one, they learn English mainly for academic purposes. English classes are conducted in a wide variety of ways and are subject to the curriculum design and the style of the instructors. Like their secondary counterparts, the competence of the tertiary participants ranged from pre-intermediate (A2) level to upper-intermediate (B2) level.

Instruments

This study employed Horwitz et al.'s (1986) FLCAS as the instrument of the study. As mentioned in the Introduction, the FLCAS is a 33-item questionnaire survey (see Appendix) aiming at identifying respondents' anxiety level in English learning. A large number of studies have made use of different latent construct constitutions of the FLCAS in their studies, suggesting their own interpretation of the corresponding areas of anxiety of the 33 items. This study compared four different models with different constitutions of latent constructs: the original set of three latent constructs suggested by Horwitz et al. (1986), the four latent constructs suggested by Park (2012), and a hypothesized four-construct model as well as a hypothesized five-construct model suggested by the authors.

Park's (2012) latent construct division differs from Horwitz et al.'s (1986) in the way that Park included the additional latent construct of Foreign Language Classroom Anxiety. All nine items of this latent construct were originally categorized as Test Anxiety in Horwitz et al.'s model, leaving only three items of Horwitz et al.'s construct of Test Anxiety unchanged. The first model that this study suggests (Model 3, see Table 1), with four latent constructs, is similar to Park's model but several of the items originally categorized as Communication Apprehension have been re-classified as English Class Anxiety (which was called Foreign Language Classroom Anxiety in Park's model), making it a latent construct with 14 items, compared with 9 in Park's model.

The second model suggested in this study (Model 4 in Table 1) has the most latent constructs of all models with five, including one that has never previously been adopted for a study: Peer Influence. However, from daily classroom observation of EFL learners and from pilot selected interviews, the authors found peers to be a factor potentially influential

to a learner's feeling about learning English.

Constructs

The three latent constructs suggested by Horwitz et al. (1986) in their devised FLCAS are Test Anxiety, Communication Apprehension, and Fear of Negative Evaluation. *Test anxiety*, as defined by Sarason (1978), refers to "the tendency to view with alarm the consequences of inadequate performance in an evaluative situation." It expresses language learners' worry about failing to conform to the requirements set by a certain set of graded assessments. *Communication apprehension* can be understood as a person's level of fear or anxiety associated with either real or anticipated communication with another person or persons (McCroskey, 1978). In an English classroom, it is not hard to find learners who are very reluctant to speak up, most probably out of fear of not knowing how to express themselves clearly and accurately. Finally, *fear of negative evaluation* refers to the avoidance from others' evaluations, distress over their negative evaluations, and the expectation of negative evaluation from others (Watson & Friend, 1969).

Park's (2012) study attempted to divide items originally categorized as Communication Apprehension into two constructs: one still about anxiety arising from communication, and the other about learners' understanding of a foreign language class. For better understanding, the latter construct is labeled English Class Anxiety in this study.

Finally, this study suggests that a fifth construct, Peer Influence, should be added. From the authors' observation, *peer influence* can be understood as the contributing and debilitating factors that arise from the coexistence, interaction, and behavior of peers together with whom one learns.

RESULTS

Comparison of the Four Models

Internal consistency reliabilities using Cronbach's α were computed on the items in the constructs of all four models. As shown in Table 1, Cronbach's α for the items in the latent constructs ranged from .706 to .919. A Cronbach's coefficient α of higher than .600 can be considered

consistent (Landau & Everitt, 2004). The relatively lower values found in constructs such as Test Anxiety in Model 2, 3, and 4, and Fear of Negative Evaluation and Peer Influence in Model 4 can be attributed to the relatively small number of items in each construct (Park, 2012).

TABLE 1. Constructs of Models of the FLCAS

Model	Constructs	No. of Items	Cronbach's α
Model 1 (Horwitz et al. 1986)	Communication Apprehension	11	.882
	Test Anxiety	15	.916
	(Fear of) Negative Evaluation	7	.822
Model 2 (Park, G. P. 2012)	Communication Apprehension	15	.919
	Foreign Language Classroom Anxiety	9	.864
	Fear of Negative Evaluation	6	.789
	Test Anxiety	3	.740
Model 3 (Lei & Chan)	Communication Apprehension	8	.880
	English Class Anxiety	14	.901
	Fear of Negative Evaluation	7	.828
	Test Anxiety	4	.706
Model 4 (Lei & Chan)	Communication Apprehension	7	.862
	English Class Anxiety	13	.900
	Fear of Negative Evaluation	5	.757
	Test Anxiety	4	.764
	Peer Influence	4	.727

In order to determine if the hypothesized models, especially the construct of Peer Influence, can be a construct of an FLCAS, confirmatory factor analysis (CFA) was performed. Indices including the chi-square (χ^2) statistic, the root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the Bentler-Bonett normed fit index (NFI) were computed. All results of the indices are listed in Table 2.

TABLE 2. Goodness-of-Fit Indices for the Constructs of the FLCAS

Model	Number of Constructs	χ^2	*df*	RMSEA	CFI	NFI
Model 1 (Horwitz et al. 1986)	3	2598**	492	.084	.807	.774
Model 2 (Park, G. P. 2012)	4	2481**	489	.082	.818	.784
Model 3 (Lei & Chan)	4	2545**	489	.083	.812	.779
Model 4 (Lei & Chan)	5	2584**	485	.085	.808	.775

Note. **p < .01. χ^2 = chi-square statistic; RMSEA = root mean square error of approximation; CFI = the comparative fit index; NFI = Bentler-Bonett normed fit index.

It can be found from Table 2 that all the chi-square statistics are found to be significant, which means the models are inadequate to fit the data (Park, 2012). However, the chi-square statistic is easily affected by the sample size and the complexity of the models, and a bigger correlation and a bigger sample size usually lowers the possibility for the chi-square statistic to accept a model (Bentler & Bonett, 1980; Kline, 2005; Marsh et al., 1988; Marsh & Hocevar, 1985; Schumaker & Lomax, 1996). As for RMSEA, a good model fit value is less than 0.05, and if the value is between 0.05 and 0.08, the model is said to be of a fair fit (Browne & Mels, 1990; McDonald & Ho, 2002; Schumaker & Lomax, 2004; Steiger, 1989). None of the values in Table 2 reaches this range, suggesting a relatively weaker fit in the model. For both CFI and NFI, a value of higher than .90 indicates a good fit. All of the values of CFI and NFI for the four proposed models were found to be close but falling short of the good-fit cut-off point. (Bentler, 1990; Bentler & Bonett, 1980; Park, 2012). Overall, it can be said that the goodness-of-fit indices presented in Table 2 indicated that the two original models and the two hypothesized models did not fit the data.

Considering the above outcome, this study analyzed the Pearson product-moment correlations among the latent constructs suggested in Model 4. The results, as presented in Table 3, indicate that the corrections among the five constructs are significant, and it might suggest the lower goodness-of-fit indices mentioned above.

TABLE 3. Pearson Correlations Among the Five Constructs in Our Hypothesized Model

	CA	ECA	FNE	TA	PI
Communication Apprehension (CA)	1	.799**	.738**	.714**	.734**
English Class Anxiety (ECA)		1	.761**	.811**	.769**
Fear of Negative Evaluation (FNE)			1	.674**	.657**
Test Anxiety (TA)				1	.687**
Peer Influence (PI)					1

Note. $^{**}p < .01$.

From the results presented in Table 2 and 3, although Model 4 with a five-latent-construct constitution may not prove to be a good fit in indices, it comes close and rivals the other three hypothesized models. Thus, the researchers attempted to carry out additional data analysis with Model 4.

Data Analysis of the FLCAS with Model 4

The means of FLCA of each of the five latent constructs of Model 4, as well as the overall means of FLCA, were computed and found to range from 2.937 and 3.256. All the means are above the value of 2.5, which suggests a relatively higher level of FLCA exhibited by the respondents. In addition, among the top 6 questionnaire items with the highest means (see Table 4), two of them fall into the construct of Peer Influence, suggesting that peer influence plays a role in Macau learners' English learning. Among the overall means, Peer Influence ranked second highest among the five constructs, and it was found to be slightly more influential in secondary learners than in their tertiary counterparts (secondary mean: 3.2098 vs. tertiary mean: 2.9831).

TABLE 4. Top 6 Items with Highest Means of FLCA

Item	Construct	Mean	Std. Deviation
When I'm on my way to language class, I feel very sure and relaxed. (reversed)	ECA	3.52	0.987
I always feel that the other students speak the foreign language better than I do.	PI	3.48	1.107
I start to panic when I have to speak without preparation in language class.	CA	3.46	1.163
I get nervous when the language teacher asks questions which I haven't prepared in advance.	FNE	3.46	1.047
I am usually at ease during tests in my language class. (reversed)	TA	3.44	1.139
I keep thinking that the other students are better at languages than I am.	PI	3.42	1.124

Note. ECA = English Class Anxiety; PI = Peer Influence; CA = Communication Apprehension; FNE = Fear of Negative Evaluation; TA = Test Anxiety.

As for the comparison between secondary and tertiary learners, it can clearly be seen in Table 5 that for all five latent constructs and the overall FLCA, secondary learners exhibit a slightly higher level of anxiety compared to their tertiary counterparts. This might be due to the fact that secondary F.6 learners face more stress in learning because of their upcoming university admission challenge.

TABLE 5. Descriptive Statistics: Mean for Each Construct Based on Education Level

Construct	Education Level	Mean	Std. Deviation
Communication Apprehension	Secondary	3.2705	.79725
	Tertiary	3.1486	.75498
Fear of Negative Evaluation	Secondary	2.9456	.72805
	Tertiary	2.8757	.74371
Test Anxiety	Secondary	3.0904	.92623
	Tertiary	2.9020	.96321
English Class Anxiety	Secondary	3.0712	.75556
	Tertiary	2.9387	.70627
Peer Influence	Secondary	3.2098	.79650
	Tertiary	2.9831	.90785
Overall Anxiety	Secondary	3.1123	.71345
	Tertiary	2.9746	.69637

Table 6 shows the correlation between different latent constructs of Model 4 and the overall FLCA of Macau EFL learners. The analysis by means of the Pearson product-moment correlations showed that English Class Anxiety was found to have the highest correlation with the overall FLCA average. Such a result is consistent with both groups of secondary and tertiary respondents of the study. However, it is worth noting that Test Anxiety had the highest correlation with FLCA in Horwitz et al.'s (1986) study but in our study ranked behind English Class Anxiety and Communication Apprehension in its correlation with overall FLCA among the secondary respondents, and behind English Class Anxiety among all the tertiary respondents. It is even behind Peer Influence in two of the three institutions of the sample tertiary groups. This suggests that with a different latent construct of factors, the correlation between different constructs and foreign language learning anxiety may vary. Further research is hence needed to discover more possible relationships between the different constitutions of latent constructs within the area of FLCA.

TABLE 6. Pearson Correlations Among the Five Constructs in Our Hypothesized Model

			CA	FNE	TA	ECA	PI
S1	OAA	Pearson Correlation	.893**	.847**	.833**	.958**	.819**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	181	181	181	181	181
S2	OAA	Pearson Correlation	.899**	.846**	.864**	.953**	.814**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	187	187	187	187	187
S3	OAA	Pearson Correlation	.919**	.847**	.892**	.969**	.891**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	122	122	122	122	122
All Secondary	OAA	Pearson Correlation	.903**	.852**	.867**	.961**	.843**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	514	514	514	514	514
C1	OAA	Pearson Correlation	.838**	.887**	.910**	.942**	.847**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	31	31	31	31	31
C2	OAA	Pearson Correlation	.852**	.815**	.897**	.958**	.955**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	15	15	15	15	15
C3	OAA	Pearson Correlation	.930**	.747**	.816**	.976**	.879**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	28	28	28	28	28
All Tertiary	OAA	Pearson Correlation	.873**	.816**	.875**	.958**	.871**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	74	74	74	74	74
Overall	OAA	Pearson Correlation	.900**	.847**	.868**	.960**	.846**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	588	588	588	588	588

Note. **Correlation is significant at the 0.01 level (2-tailed). OAA = Overall FLCA Average; CA = Communication Apprehension Average; FNE = Fear of Negative Evaluation Average; TA = Test Anxiety Average; ECA = English Class Anxiety Average; PI = Peer Influence Average; S = Sample Secondary School; C = Sample Tertiary Institution.

DISCUSSION

As is shown in Table 5, both secondary students and their tertiary counterparts exhibit foreign language classroom anxiety with a mean of

higher than 2.5 for each item. This highlights the relatively high FLCA among Macau EFL learners, and suggests that some solutions to the situation are needed. Moreover, according to Table 6, the factor of English Class Anxiety influences students' overall level of anxiety the most, which is followed by Communication Apprehension, Test Anxiety, Fear of Negative Evaluation, and Peer Influence. One item depicting English Class Anxiety was found to show the highest mean of FLCA, namely the reversed item "When I'm on my way to language class, I feel very sure and relaxed." In other words, a majority of language-anxious students do not enjoy English class and feel perturbed when thinking of going to English classes. One point that is worth considering is that Peer Influence contributes to two of the six highest items that account for language anxiety. Although Peer Influence does not seem comparatively salient to overall FLCA based on the Pearson correlation, the effects derived from peers cannot be overlooked. When looking at the two corresponding items, we recognize that learners are inclined to compare English capability with their classmates, which can result in high anxiety if students cannot foster a positive attitude towards language learning. Recommendations should be given to teachers on how to modify and introduce methods to engage all students and boost the confidence of relatively anxious students.

In order to gain a deeper understanding of the anxiety of students towards learning English, a semi-structured interview was conducted following the questionnaire survey. Twelve consenting students from one of the secondary schools were selected as interviewees. They were evenly divided into high-anxiety and low-anxiety groups based on the result of their responses. Open-ended questions and scale questions were asked. Abstracting the main points from their responses, the following insights were found: first, both groups reflected having higher anxiety towards speaking in English than taking English tests. Most of them agreed that speaking demands greater mastery of English, and they were afraid of giving immediate responses in English. In contrast, English tests can mostly be prepared for in advance, and accordingly, anxiety can be effectively lessened with clearer test coverage. With regard to speaking English, almost all of the interviewees agreed that there is a lack of chances to speak up in English classes. The more motivated and less anxious interviewees can usually seek ways to practice after school. Some ideas like "I will talk with my friends in English after class," "there are some platforms on the internet to talk with foreigners," and

"I am really fulfilled when they [the native speakers] praise my accent" were reflected. However, students from the high-anxiety group are unmotivated in and out of the classroom. The lack of motivation in English class deprives them of a sense of achievement, which leads to anxiety when they are required to speak in English or take English tests.

IMPLICATIONS

Similarities in the Education and EFL Situations in Korea and Macau

The education frameworks and EFL teaching and learning environments in Korea and Macau are very similar. Both regions run a basic educational system of six years of primary education, three years of lower-secondary, and three years of senior-secondary (South Korea: Learning Systems, n.d.). Students in both places perform substantially better in academics than the global average: in PISA 2018, both regions ranked in the top 10 in all three areas of reading literacy, mathematics, and science, with a score of at least 20 marks higher than the OECD average (Macau Special Administrative Region Education and Youth Affairs Bureau, 2019). In addition, female students in Korea and female students in Macau outperform their male counterparts with a statistically significant difference of over 20 points in reading literacy (PISA, 2019a, 2019b).

Concerning the perspective of learning English, children in both Korea and Macau learn English at a young age, with Macau's children starting as early as pre-primary education (when children reach the age of 3) and Korea's starting at Grade 3 (South Korea Education, n.d.). English is not the official language of either region; however, as both regions put heavy stress on tourism, global trade, and the service industry, English is an international language that is valued in both places, especially in the educational systems. For secondary graduates of both places, English is a core section for the test that determines their admission of tertiary educational institutions. In Korea, the English section of the College Scholastic Ability Test (CSAT) is deemed to be "notoriously difficult" (Park, 2018). Because of this, secondary school graduates-to-be in both regions face enormous pressure for a place in

tertiary institutions, and the situation is especially serious in Korea, where students begin studying for CSAT as early as their first year of high school, attending extracurricular study academies and cram schools for hours each day after their regular classes, which can be up to 16 hours of studying each day (Tai, 2018). They aim high for prestigious universities, and the college entrance exam is believed to determine students' course of life and future professions in a South Korean society where graduating from a prestigious university is crucial to obtaining a successful job (Liu, 2019). The above phenomenon can also be reflected in the massive amount of spending on English learning in both regions. It is estimated that in Korea, a total of about 15 trillion won (US$15.8 billion), is spent on English learning per year (Jeon & Choi, 2006).

Concerning EFL instruction, it has been found that rote learning and a heavy emphasis on grammar is the norm of English instruction in both regions, causing EFL students to lack a real sense of the use of English in real life and as a world lingua franca (Hogan, 2015).

Similarities in Foreign Language Classroom Anxiety Between Students in Korea and Macau

Based on this study of Foreign Language Classroom Anxiety of Macau EFL secondary school and first-year university students, and Manley's (2005) study of Foreign Language Anxiety of first-year students in a Korean university, it has been found that EFL students of both regions exhibit a relatively higher anxiety level when it comes to Communication Apprehension (in the study by Manley, it is referred as "uncomfortableness when speaking"), accounting for 5 out of the 15 highest-ranked items in Macau, and 10 out of the 15 highest-ranked items in Korea. Despite a different latent construct, Peer Influence (referred to as "comparisons to peers" in the study by Manley) can be seen as one of the factors that may affect students' foreign language anxiety. Both studies suggest that students from Korea and from Macau face a relatively higher level of anxiety when learning English, and the factors that contribute to such anxiety are similar.

Implications of FLCA for EFL Teaching and Learning in Both Macau and Korea

Speaking Anxiety

Both students in Korea and Macau suffer from the fear of speaking English. Based on Manley's (2015) and this research, the self-perceived lower English proficiency and expectations of making no mistake could contribute to the reticence in the English classroom to a great extent. Students may want to speak up but are not confident of their English ability. To avoid being embarrassed by revealing any possible errors in their speech, they would rather stay silent in the class. As a result, they only give a response when teachers specifically nominate them. Another possible situation is that students are pondering over their wording or hesitating to give an answer to a question. In fact, teachers may feel uncomfortable with the awkward silence or be in need of catching up in their lesson plan, and thus hasten to prompt a verbal reaction from the students. In our opinion, instructors in the Asian context can focus more on the passive students by giving more hints to them and praising their achievement more frequently. The greater engagement in class should relieve speaking anxiety over time. Moreover, Manley (2015), paraphrasing the words of Lee and Ng (2010), stated that the feedback and responses from students could be different if a longer waiting time were allowed. This indicates that with an increase in the level of instructors' patience, students are likely to produce more meaningful responses actively.

Peer Influence

Learning with classmates is deemed to be effective in relieving student speaking anxiety. As is suggested by researchers (Cao & Philp, 2006; Cheng, 2000; Manley, 2015), using group work, pair work, and discussions is a practicable means to encourage students to speak up more actively. This view is in accordance with the reflection of the interviewees of this research. Participants from both high- and low-anxiety groups generally agree that they are more likely to shift the focus from accuracy to meaning and even fluency when they interact with peers. Some of the students even seek opportunities to speak outside the classroom with their peers, which can enable them to make English a useful tool in their daily life rather than required knowledge to be crammed for passing tests and high-stakes exams. Thus, putting

students into groups can reduce the pressure they get from the presence of teachers, and they can avoid the fear of making mistakes and thus focus more on building meaning in English conversations. Peer influence here appears positive for language learning. However, there could be a possibility that students compare themselves with peers and thereby struggle with thinking lowly of themselves. Such self-consciousness is quite natural and automatic to some extent, and teachers should allocate students into groups taking into consideration their capability and personality.

Teacher–Student Relationship

The authors take note of the importance of rapport between students and teachers in the course of learning English. Abstracting the results of other studies (Cao & Philp, 2006; Cheng, 2000; Manley, 2015) as well as the results of this research, students are found to be less anxious speaking with someone they are familiar with, namely their peers in most cases. Teachers can thus get to know more about their students and try to be friendly rather than establish a leader–subordinate relationship. The closer the relationship is between students and teachers, the less nervous students will feel about speaking English in front of teachers. Additionally, the experience and daily observations of the authors, which are in accordance with the opinions of the interview participants, is that the better the teacher–student relationship is, the more likely students will take teachers' instructions as friendly advice rather than criticism. In addition, paying more attention to wording and asking questions consistent with different students' level can give incentive to highly anxious students. Some of the interviewees shared that they feel reluctant to listen to teachers either because the topics are boring or the questions are difficult. When they were asked for some suggestions, they all agreed that they would be more engaged if the questions from teachers were made easier. For the same reason, teachers may try to be trendy, choose hot topics that their students are interested in for discussions and classroom tasks in order to encourage a sense of involvement. Moreover, smiling more and being humorous can draw the teachers and students closer as teachers appear to be more approachable in this light.

CONCLUSIONS

In order to investigate how foreign language classroom anxiety affects English learning of Macau's EFL secondary school graduates-to-be and college first-year learners, as well as the correlative influence that different constructs (in particular, Peer Influence) of FLCAS have on both groups, this study compared the latent constructs suggested by Horwitz et al. (1986) and Park (2012) with two hypothesized models proposed in this study. CFA has been conducted with the responses collected from 531 secondary respondents and 74 college respondents.

Three main conclusions can be drawn from the study: first, concerning the construct categories, the results of the study showed none of the four models with different categories of constructs provided acceptable suitability of indices. Despite this, when further descriptive and correlation analysis was carried out, it was found that each of the five constructs suggested in this study highly correlated with the overall FLCA as well as inter-correlated with the other four constructs in the scale. All values have been found to be statistically significant (see Table 3).

The second conclusion concerns the comparison of the level of FLCA between secondary and tertiary learners, and the comparison between genders. As indicated in the results, secondary learners exhibited a higher level of anxiety than the tertiary learners. However, gender difference was not found to be remarkable, as the mean scores of the two genders are very close (male: 3.1104 vs. female: 3.0807) and the two genders each exhibited a slightly higher level of anxiety for certain factors.

The final conclusion is about the construct that contributes to a higher level of FLCA. Through further analysis, it has been discovered that the influence of negative evaluation from teachers is not as dominant as other constructs. As indicated in Table 5, the mean scores of the construct Fear of Negative Evaluation, regardless of education levels, is the lowest among the five constructs, suggesting a relatively lower anxiety level. This result corresponds with the means of all 33 items: Two of the five items with the lowest mean scores belong to the category Fear of Negative Evaluation, suggesting that learners do not view teachers' comments as threatening and intimidating as other factors. In addition, as mentioned in the results, the influence of Test Anxiety

is less dominating than what Horwitz et al. (1986) suggested in their study. Similar to Fear of Negative Evaluation, two of the five lowest anxiety items belong to Test Anxiety. Contrastively, Peer Influence and Communication Apprehension occupy the highest proportion of the items with a high mean score, occupying two out of the five and five out of the ten highest anxiety items, respectively. In other words, while speech anxiety deserves more focus in English pedagogy, peer influence should also be taken into consideration as a source of English learning anxiety.

As for implications for future teaching, teachers may consider introducing more group work in their classes. Wording and levels of questions that cater to the capability of the students should be considered, and test coverage can be made more explicit so as to lessen unnecessary worry of students that arises from the perceived need to prepare intensely for assessments.

THE AUTHORS

Riko LEI, Ut Meng is a student at Beijing Foreign Studies University. She has great interest in English and has an insight into the difficulties of ESL/EFL students studying English. She excels in English, especially in speaking and writing. She came in first in English in Form 6. In 2017, she won the Best Speaker of Chinese-Medium Schools award in the 16th Macao-wide Speech Contest. In 2018, she became the first Macau student to win the Gold Award in the category of creative writing at the Genius Olympiad. Her research interests include cognitive linguistics, foreign language learning anxiety, and overcoming learning difficulties of English. Email: riko.research@gmail.com

Alan CHAN, Ka Lon is currently an instructor at the English Language Centre of the University of Macau. He taught English at a secondary school in Macau for over 14 years and puts great effort into the development of curriculum and new methods of instruction. He has also been a training teacher for many international STEAM competitions, leading students to set new Macau records. With his dedication to education, he was awarded the Distinguished Teacher Honour for the school year 2016–2017 by the local educational bureau. His research interests include EFL writing pedagogy, writing correction feedback, and language learning anxiety. Email: alanchan@um.edu.mo

REFERENCES

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.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, *88*, 588−606.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*, 238−246.

Browne, M. W., & Mels, G. (1990). *RAMONA user's guide*. Department of Psychology, Ohio State University.

Cao, Y., & Philp, J. (2006). Interactional context and willingness to communicate: A comparison of behavior in whole class, group and dyadic interaction. *System*, *34*(4), 480−493.

Cheng, X. (2000). Asian students' reticence revisited. *System*, *28*(3), 435−446.

Cheng, Y-S., Horwitz, E. K., & Schallert, D. L. (1999). Language anxiety: Differentiating writing and speaking components. *Language Learning*, *49*, 417−446.

Hogan, J. (2015, September 13). Koreans and studying English (part 1). *Hi Expat*. https://www.englishspectrum.com/koreans-and-studying-english-part-i/

Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *Modern Language Journal*, *70*(2), 125−132.

Higher Education Bureau, Macau. (2019). *Summary of higher education data 2018*. https://www.dses.gov.mo/doc/2018/stat2018.pdf

Jeon, H-C., & Choi, H-S. (2006). *The economics of English* (CEO Information No. 178). Samsung Economic Research Institute.

Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). Guilford.

Landau, S., & Everitt, B. S. (2004). *A handbook of statistical analyses using SPSS*. Chapman & Hall.

Lee, W., & Ng, S. (2010). Reducing student reticence through teacher interaction strategy. *ELT Journal*, *64*(3), 302−313.

Liu. (2019, November 14). S. Korean students take all-important college entrance exam. *Xinhua*. http://www.xinhuanet.com/english/2019-11/14/c_138554571.htm

Liu, M., & Jackson, J. (2008). An exploration of Chinese EFL learners' unwillingness to communicate and foreign language anxiety. *Modern Language Journal*, *92*, 71−86.

Macau Special Administrative Region Education and Youth Affairs Bureau. (2019, December 3). *Macao-China: High-performing and fast-improving basic education system according to PISA 2018*. https://www.gov.mo/zh-hant/news/310069/

MacIntyre, P. D., & Gardner, R. C. (1989). Anxiety and second-language learning: Toward a theoretical clarification. *Language Learning*, *39*(2), 251–275. https://doi.org/10.1111/j.1467-1770.1989.tb00423.x

Mak, B. (2011). An exploration of speaking-in-class anxiety with Chinese ESL learners. *System*, *39*, 202–214.

Manley, K. (2015). *Comparative study of foreign language anxiety in Korean and Chinese students* [Master's thesis, St. Cloud State University]. The Repository, St. Cloud State University. https://repository.stcloudstate.edu/engl_etds

Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First- and higher-order factor models and their invariance across groups. *Psychological Bulletin*, *97*, 562–582.

Marsh, H. W., Balla, J. R., & McDonald, R. P. (1988). Goodness-of-fit indexes in confirmatory factor analysis: The effect of sample size. *Psychological Bulletin*, *103*(3), 391–410.

Matsuda, S., & Gobel, P. (2004). Anxiety and predictors of performance in the foreign language classroom. *System*, *32*, 21–36.

McCroskey, J. C. (1978). Validity of the PRCA as an index of oral communication apprehension. *Communication Monographs*, *45*(3), 192–203.

McDonald, R. P., & Ho, M. R. (2002). Principles and practice in reporting structural equation analysis. *Psychological Methods*, *7*, 64–82.

Park, G-P. (2012). Investigation into the constructs of the FLCAS. *English Teaching*, *67*(2), 207–220.

Park, S-S. (2018, November 17). Check your English ability with "notorious" Korean college entrance exam. *The Korean Times*. https://koreatimes.co.kr/www/nation/2019/09/177_258803.html

PISA 2018 student performance of Korea (2019a). OECD. https://gpseducation.oecd.org/CountryProfile?primaryCountry=KOR&treshold=10&topic=PI

PISA 2018 student performance of Macau (2019b). OECD. https://gpseducation.oecd.org/CountryProfile?primaryCountry=MAC&treshold=10&topic=PI

Sarason, I. G. (1978). The Test Anxiety Scale: Concept and research. In C. D. Spielberger & I. G. Sarason (Eds.), *Series in clinical and community psychology* (pp. 193–216). Hemisphere.

Schumaker, R. E., & Lomax, R. G. (1996). *A beginner's guide to structural equation modeling*. Lawrence Erlbaum.

Schumaker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling* (2nd ed.). Lawrence Erlbaum.

Shao, X. (2014). A study of Chinese college students' English reading anxiety. *American Journal of Educational Research*, *2*(5), 299–303.

South Korea Education. (n.d.). *Asia Society*. https://asiasociety.org/education/

south-korean-education

South Korea: Learning systems. (n.d.). *National Center on Education and the Economy*. http://ncee.org/what-we-do/center-on-international-education-benchmarking/top-performing-countries/south-korea-overview/south-korea-instructional-systems/

Steiger, J. H. (1989). *EZPATH: A supplementary module for SYSTAT and SYSGRAPH*. SYSTAT.

Tai, C. (2018, November 15). Why South Koreans are trapped in a lifetime of study. *SCMP*. https://www.scmp.com/week-asia/society/article/2173414/schools-never-out-why-south-koreans-are-trapped-lifetime-study

Toth, Z. (2008). A foreign language anxiety scale for Hungarian learners of English. *WoPaLp*, *2*, 55−78.

Watson, D., & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology*, *33*, 448−457.

Young, D. J. (1994). New directions in language anxiety research. In C. A. Klee (Ed.), *Faces in a crowd: The individual learner in multisection courses* (pp. 3−46). Heinle & Heinle.

Zhao, N. (2007). A study of high school students' English learning anxiety. *Asian EFL Journal*, *9*(3), 22−34.

APPENDIX

Foreign Language Classroom Anxiety Scale		
Scale: (1) Strongly Disagree (2) Disagree (3) Neural (4) Agree (5) Strongly Agree		
	Chinese Translation	**English**
1	上英語課要說話的時候, 我總欠缺自信.	I never feel quite sure of myself when I am speaking in my foreign language class.
2[R]	上英語課時, 我不會擔心會犯錯.	I don't worry about making mistakes in language class.
3	在英語課堂上當老師叫到我時, 我會顫抖.	I tremble when I know that I'm going to be called on in language class.
4	在課堂上我如果不明白老師說的話, 我就會很緊張.	It frightens me when I don't understand what the teacher is saying in the foreign language.
5[R]	即使我要上更多的英語課時, 我一點也不煩惱.	It wouldn't bother me at all to take more foreign language classes.
6	上英語課時, 我總是在想課外的事情.	During language class, I find myself thinking about things that have nothing to do with the course.
7	我總是在想別的同學學英語學得比我好.	I keep thinking that the other students are better at languages than I am.
8[R]	我在進行英語課的一些測驗時, 通常感到輕鬆.	I am usually at ease during tests in my language class.
9	當我在英語課堂上, 沒有準備過的情況下說話, 我會感到慌張.	I start to panic when I have to speak without preparation in language class.
10	我會擔心我的英語課堂成績不合格.	I worry about the consequences of failing my foreign language class.
11[R]	我不明白為什麼有些人會因為上英語課而感到難過.	I don't understand why some people get so upset over foreign language classes.
12	上英語課時, 我會慌得把會的也忘了.	In language class, I can get so nervous I forget things I know.
13	我覺得上英語課時主動回答問題會令我感到尷尬.	It embarrasses me to volunteer answers in my language class.
14[R]	我與英語為母語者說話時不會覺得緊張.	It would not be nervous speaking the foreign language with native speakers.
15	如果有不明白老師改正我的地方, 我會覺得難過.	I get upset when I don't understand what the teacher is correcting.
16	即使我為英語課準備了很多, 我依然會覺得焦慮.	Even if I am well prepared for language class, I feel anxious about it.
17	我時常不太想上我的英語課.	I often feel like not going to my language class.
18[R]	我在英語課上說英語會覺得自信.	I feel confident when I speak in foreign language class.

19	我很害怕我的英語老師會改正我的每一個錯誤.	I am afraid that my language teacher is ready to correct every mistake I make.
20	在英語課堂上當老師叫到我時, 我心總是跳得很快.	I can feel my heart pounding when I'm going to be called on in language class.
21	我愈是為英語測驗溫習, 我愈是感到混亂.	The more I study for a language test, the more confused I get.
22[R]	我不為要好好準備英語課而感到壓力.	I don't feel pressure to prepare very well for language class.
23	我總是感到其他學生說英語比我好.	I always feel that the other students speak the foreign language better than I do.
24	要在其他同學面前說英語, 我會感到很難為情.	I feel very self-conscious about speaking the foreign language in front of other students.
25	我覺得英語課的進程太快, 很擔心會跟不上.	Language class moves so quickly I worry about getting left behind.
26	比起其他課堂, 上英語課令我感到更焦慮.	I feel more tense and nervous in my language class than in my other classes.
27	我在英語課上說話時感到緊張與混亂.	I get nervous and confused when I am speaking in my language class.
28[R]	每當我要上英語課時, 我總是感到胸有成竹且心情輕鬆.	When I'm on my way to language class, I feel very sure and relaxed.
29	當我不明白老師在英語課上說的所有的字的時候, 我會感到緊張.	I get nervous when I don't understand every word the language teacher says.
30	學英語要掌握這麼多語法, 會讓我擔心.	I feel overwhelmed by the number of rules you have to learn to speak a foreign language.
31	我在說英語時, 會因為擔心同學嘲笑而感到焦慮.	I am afraid that the other students will laugh at me when I speak the foreign language.
32[R]	在英語為母語者在一起我感到很自在.	I would probably feel comfortable around native speakers of the foreign language.
33	當老師問我一個我無準備的問題時, 我會很緊張.	I get nervous when the language teacher asks questions which I haven't prepared in advance.

Note. Superscript [R] indicates reverse scored items.