

# **Second language speaking anxiety of learners of English for academic purposes in Australia**

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## **Abstract**

This study examines second language speaking anxiety of international students attending English for academic purposes (EAP) courses prior to entering university courses in Australia. Research has indicated that anxiety is a significant negative influence on language performance, particularly speaking.

Second language speaking anxiety is conceptualised as a two-dimensional construct reflecting in-class and out-of-class communication as experienced by English language learners studying in Australia. This study describes the reliability and validity of instrumentation designed to measure second language speaking anxiety, its relationship to oral performance, the major stressors reported by the sample and the influence of ethnicity on anxiety scores.

275 advanced EAP students completed the questionnaire and took part in an IELTS type oral assessment, 47 of these participants took part in a semi-structured interview. The instrumentation was found to be reliable and valid. Second language speaking anxiety was found to be negatively related to oral performance. The major stressors reported by the sample were performing in front of others in the English class and interacting with naïve speakers of English. There was some indication that anxiety is influenced by ethnicity with students from Confucian heritage cultures reporting more anxiety than European or Vietnamese students.

## **Introduction**

International students occupy one in five places at Australian universities (Sydney Morning Herald, August 2002). Most of these students come from neighbouring Asian countries and stay in Australia between 1 to 4 years. Prior to enrolment, many international students study English at recognised intensive English language centres to achieve the required level of English. Speaking skills are considered a problem for Asian students, because of the lack of exposure to native speakers, and the emphasis on formal exam driven language courses in Asian countries. Research has indicated that language learning anxiety impacts most on speaking skills. MacIntyre found foreign language anxiety is one of the strongest predictors of foreign language performance.

## **Background**

Early research indicated the construct of test anxiety was not applicable to language learning situations, probably because of a specificity concerning the formal evaluation component of test anxiety, and the communicative element in language learning. As a result, research into language learning anxiety has focussed on a domain specific conceptualisation of anxiety.

Language learning anxiety is defined as situation specific, , that is trait anxiety occurring in specific situations. There is some evidence in the literature for two types of anxious individuals those who experience anxiety because of a skills deficit and those who experience problems recalling previous knowledge, or interference retrieval based on Tobias' model of stages of anxiety .

Groundbreaking research into language learning anxiety was conducted by Horwitz using American university students studying various languages as a course requirement. She produced the Foreign Language Classroom Anxiety Scale (FLCAS) which has been widely used . Horwitz's research indicated that anxiety was significantly related to poor performance in the foreign language, particularly speaking skills. This research focussed on classroom anxiety. When learning a language in the target language environment learners need to study in class but they also need to use the language outside of class, so a conceptualisation of anxiety relevant to English language learners in Australia needs to take this into consideration.

To account for the in/out of class distinction a two dimensional conceptualisation of second language speaking anxiety was proposed based on communicative situations. A five point Likert type scale was designed, based on types of interactions according to setting and interlocutor. The 22 item questionnaire was piloted and revised resulting in a final instrument comprising 11 items.

The research projects posed the following research questions

1. Is conceptualisation/ and instrumentation to measure second language speaking anxiety applicable, reliable and valid?
2. Is there a relationship between speaking performance and second language speaking anxiety?
3. What are the major stressors reported by sample?
4. Do learners from different ethnic groups differ in level of second language speaking anxiety?

## Participants

The participants were 275 (136 female, 139 male) advanced English for academic purposes (EAP) learners studying at accredited language centres in Australia. The ethnic background of the participants is presented in table 1. The participants studied on intensive EAP courses for an average of 20 hours per week and almost all the participants planned to study at Australian universities subsequent to completing their English course. Most of the participants were in their early 20s, and over half of the participants planned to study at postgraduate level ( $n=149$ , 64.7%). Most of the participants had been in Australia for three months or less ( $n=112$ , 44.3%) and at their centre for three months or less ( $n=149$ , 54.2%)

Table 1

### Country of origin of the participants

Country	n	%
China	69	25.1

Korea	37	13.5
Thailand	33	12.0
Europe	27	9.8
Indonesia	25	9.1
Japan	20	7.3
Vietnam	18	6.5
Taiwan	15	5.5
S. America	14	5.1
Hong Kong	8	2.9
India	3	1.1
Philippines	3	1.1
Malaysia	1	.4
Missing	2	.7
Total	275	100.0

### Procedure

All of the students completed the anxiety subscales and oral performance was assessed using a type of International English Language Testing System (IELTS) interview. This test is used to assess the level of English for university entry in Australia. To provide more in depth information about perceived stressors 47 of the participants took part in a semi-structured interview.

### Instrumentation

The instrumentation was designed for the study because the existing measures were considered inappropriate. The subscale was designed based on communicative situations taking into consideration: setting, interlocutor, level of formality and whether initiating or responding. In the initial pilot instrument, the items were designed to capture anxiety reactions. The initial factor analysis produced high error variances and some of the participants reported problems understanding the reaction words, so the items were simplified in the main study. To facilitate understanding of the concept of second language speaking anxiety a definition was given in English at the beginning of the subscale. This was translated into Chinese, Korean, Japanese, Vietnamese, Indonesian and Thai.

## Results

The descriptive statistics for the subscales are presented in table 2.

Table 2

Means and standard deviations for second language speaking subscale items.

Item	N	Mean	SD
<b>In-class anxiety</b>			
Giving oral presentation	274	2.93	1.09
Role play in front of class	274	2.73	1.02
Contribute formal discussion	274	2.61	.99
Answer question teacher	275	2.05	.93
Speak informally teacher	275	1.81	.82
Take part group discussion	274	1.74	.87
<b>Out-of-class anxiety</b>			
Answer question lecturer	275	2.65	1.02
Ask question lecturer	275	2.35	1.02
Participate conversation more than one NSp	275	2.35	1.03
Answer questions unknown NSp	273	2.23	1.01
Talk to admin staff	273	2.09	.91
Start conversation unknown NSp	275	1.93	.96

To assess the robustness of a two-factor model of second language speaking anxiety a confirmatory factor analysis (CFA) using LISREL 8.5 was conducted. All screening procedures used to assess conformity to underlying assumptions produced satisfactory results. A two factor model corresponding to in-class and out-of-class anxiety provided a better fit to the data than a one factor model, and this indicated a moderate fit to the data. The model replicated the pilot study, however, factor loadings were much improved, possibly due to the simplification of the items. Three error covariances were included in the model to enhance fit, these corresponded to native speaker interaction, answering questions and

performing in front of the class. Figure 1 illustrates the CFA model and table 3 reports the fit indices.

A model based calculation indicated good reliability for the instrumentation (in class anxiety = .89, out of class anxiety = .87).

Figure 1 Path diagram for CFA of second language speaking anxiety

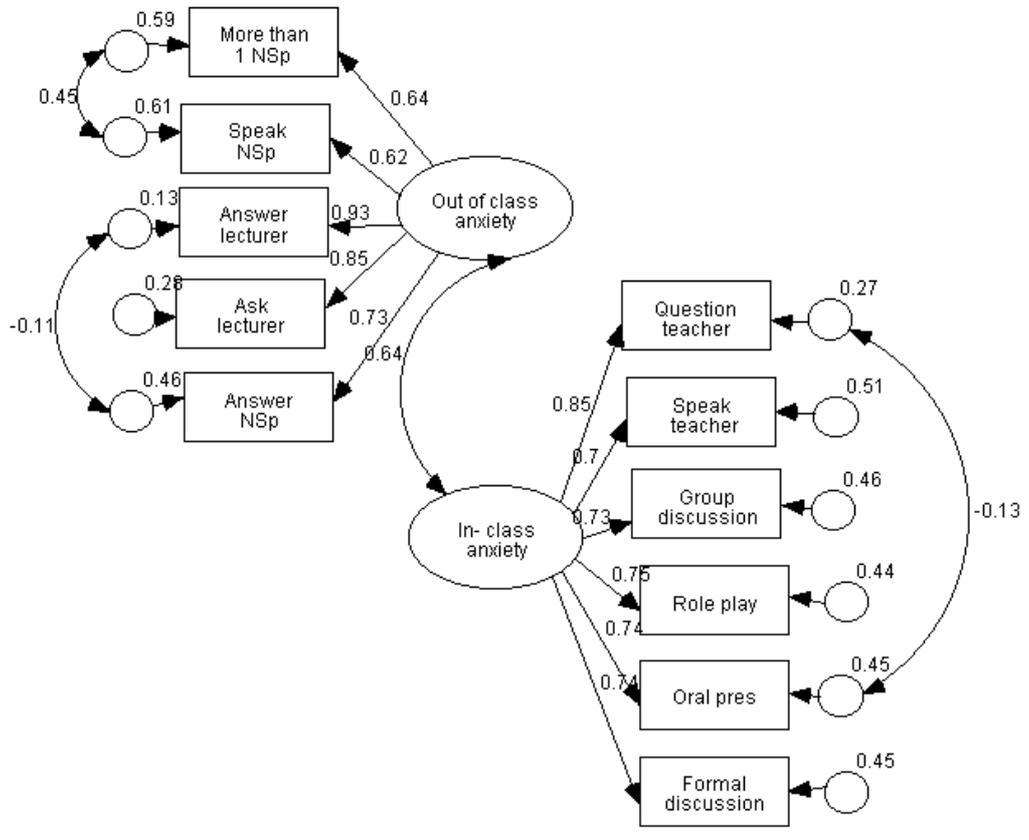


Table 3

Fit indices for CFA for second language speaking anxiety

	$\chi^2$	p	$\chi^2/df$	RMR	RMSEA	GFI	AGFI	CFI	NFI	NNFI
Anxiety	172.62	.000	.4.32	..07	..11	.90	.83	.93	.84	.90

A Pearson correlation analysis was computed, using SPSS 10, of anxiety and oral performance as measured by the IELTS speaking test indicated that there was a significant negative relationship between second language speaking anxiety and oral performance. This is illustrated in table 4.

Table 4

Correlations between anxiety and oral performance

Construct	1	2	3
1 IELTS	1.00		
2 In class anxiety	-.23**	1.00	
3 Out of class anxiety	-.24**	.58**	1.00

\*\* significant at  $p = <.01$

To compare anxiety across cultures a multivariate analysis of variance (MANOVA) was computed. Participants from ethnic groups with less than 5 members were excluded from the analysis and there were two missing cases where participants had not entered their nationality, thus leaving a final sample of 265.

According to the descriptive statistics, performing in front of the class was rated most frequently on the in-class subscale, while talking to native speakers rated most frequently on the out-of-class subscale. In the pilot study the questionnaire contained several items referring to communication with non-native speakers of English. The respondents reported that they did not experience anxiety speaking to non-native speakers therefore these items were removed from the questionnaire for the main study.

To provide further information beyond the descriptive statistics about perceived stressors data from the semi-structured interview was used. Participants were asked in which situations they experienced anxiety when speaking English. The categories that emerged from the data supported the quantitative analysis with the highest ranking stressor relating to classroom activities related to performing in front of others.

Table 5

Major stressors when speaking English reported by respondents. ( $N = 47$ )

Stressor	n	%
Performing in front of others	21	44.7
Oral presentation	20	42.7
Speaking to native speakers	18	38.3
Classroom activities	9	19.1
Talking to strangers	9	19.1
Cannot understand	8	17.0
Unfamiliar topic	8	17.0
Status of interlocutor	8	17.0
Test situations	7	14.9
Attitude of interlocutor	6	12.7
Cannot be understood	5	10.6

To assess whether ethnicity or sex were influencing factors in second language speaking anxiety a 10 (ethnicity) by 2 (sex) multivariate analysis of variance (MANOVA) was conducted. There was no significant effect for sex ( $V=.005$ ,  $F(2,245) = .64$ ,  $p=.53$ ),  $h^2$

$=.005$ . There was however a significant main effect for ethnic group ( $V=.15$ ,  $F(18,492) = 2.28$ ,  $p=.01$ ). The univariate analyses of variance (ANOVAS) indicated significant main effects of ethnic group on in class anxiety  $F(9, 246) = 2.69$ ,  $p<.01$ ,  $h^2 = .09$ ) and on out-of-class anxiety ( $F(9, 246) = 3.45$ ,  $p<.00001$ ,  $h^2 = .11$ ). The estimated means are presented in figure 2 and 3. The graphs indicate that respondents from Confucian heritage cultures (CHCs), that is China and Chinese speaking countries, Japan and Korea, experience more anxiety than respondents from Europe, and Vietnam, with Japanese and Korean participants indicating the highest levels of anxiety.

Using a significance level of .05 Tukey's HSD post hoc tests indicated significant differences between European and Korean participants on in class anxiety and Vietnamese and Korean, Vietnamese and Japanese and Vietnamese and Taiwanese on out of class anxiety. This indicates some evidence for a distinction between CHCs and other cultures.

Figure 2

Graph showing estimated means on in-class anxiety for different ethnic groups

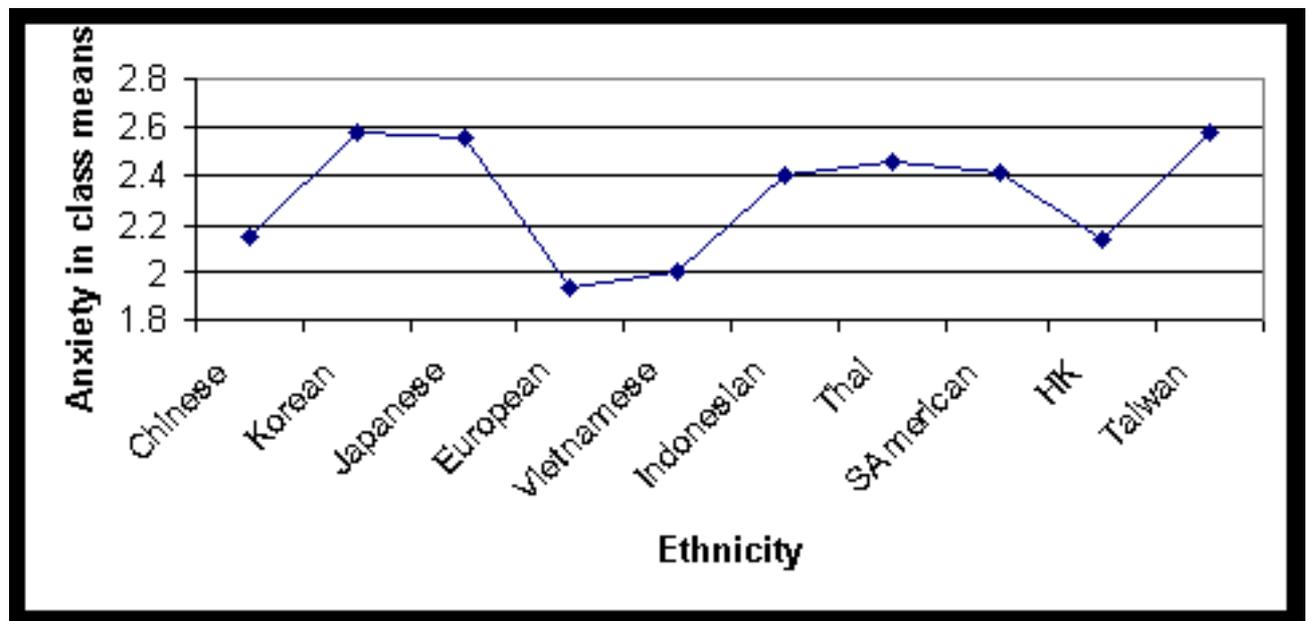
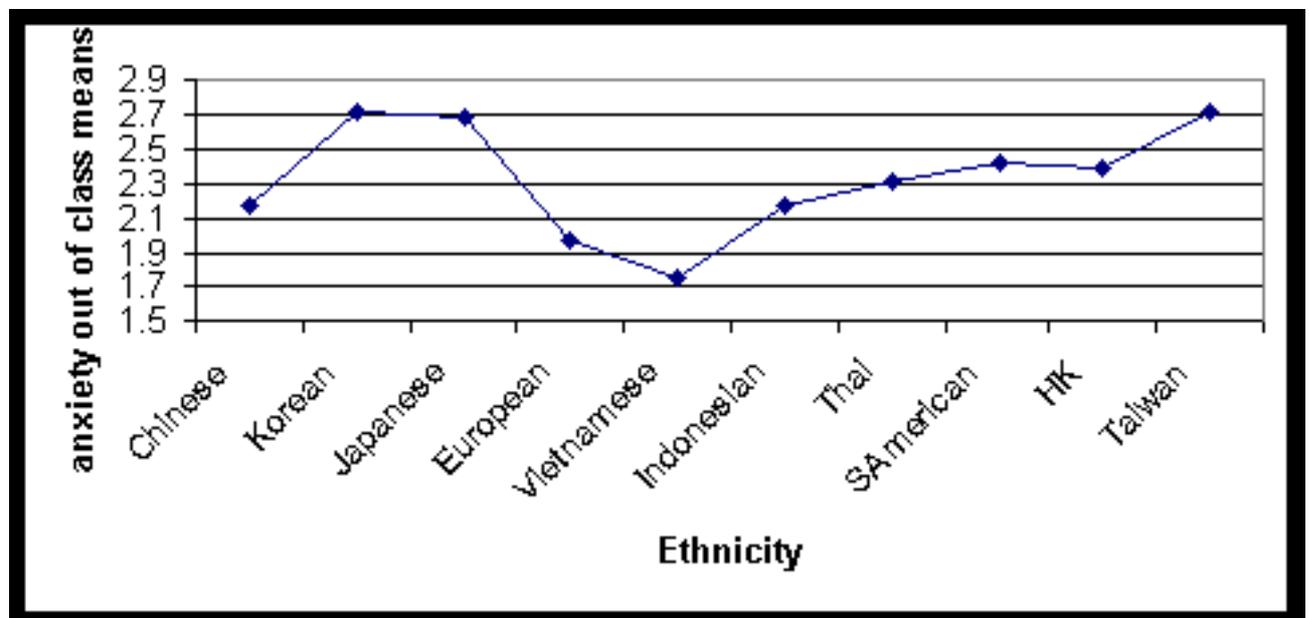


Figure 3

Graph showing estimated means on out of-class anxiety for different ethnic groups



### Discussion

The results show that the two dimensional classification of anxiety is reasonable for this sample -- that out-of-class anxiety is just as likely to interfere with language use as in-class anxiety. The primary stressors refer to performance like classroom activities and

communicating with native speakers and there seemed to be some differences between ethnic groups.

Based on research in education there is evidence that different types of anxious learners benefit from different treatments. The skills deficit learner, experiences anxiety because he/she does not have the necessary skills and benefits from skills input, while an interference retrieval learner is unable to retrieve information due to cognitive interference and benefits from desensitising. (Naveh-Benjamin, 1991)

To reduce in-class anxiety language learning strategies can play an important role. In the case of oral presentations and performing in front of class there is an argument for reducing the number of these activities and highlighting more use of peer interaction in English. However, giving an oral presentation is an important skill for EAP students. Careful staging may reduce potential anxiety and a gradual reduction in structured to free activities.

Learners of English in Australia benefit from being immersed in the target language environment and it is desirable to provide them with strategies to access as much language as possible to facilitate their learning. Most of the respondents referred to communicating with native speakers as being a situation in which they experienced speaking anxiety. They also perceived communicating with native speakers as being a good way to learn English. Learning communication strategies that would enable learners to initiate and maintain conversations would facilitate speaking to native speakers. Out of class tasks involving interacting with native speakers, such as student devised surveys, can provide some support for learners. In addition, encountering a greater number of native speakers, for example setting up an English club with visiting speakers, excursions to the pub. in the safe environment , would be beneficial.

The results indicated an effect for ethnicity. Interestingly Vietnamese participants performed in the same way as European participants. The Vietnamese participants differed from the other participants because they were mostly scholarship students who had already gone through a rigorous selection procedure. In addition, many of these participants already had IELTS scores and guaranteed places at university. This could lead to greater self-confidence and lower speaking anxiety. However cultural differences in language learning anxiety need further exploration taking into account variables of linguistic proficiency and language learning background.

This project focussed on a narrow section of the English language learning community -- the sample were all advanced EAP learners. It would be valuable to investigate speaking anxiety with lower level general English students. In addition there is a need to further explore the effect of ethnicity on anxiety and compare this to more contextual influences such as educational background and teacher variables.

## References