

# The Roles of Anxiety and Motivation in Taiwanese College Students' English Learning

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**Abstract.** The study aims to explore the roles of anxiety and motivation in foreign language learning. A total of 141 freshmen at a private university in south Taiwan served as subjects. The research instrument includes the Foreign Language Classroom Anxiety Scale (FLCAS) (Horwitz, Horwitz, & Cope, 1986), Motivation/attitude about foreign language learning (Gardner, 1985), as well as two English scores of Taiwan College Entrance Exam (CEE) and National English Test of Proficiency All on the Web (NETPAW). All available data were processed by SPSS 16 (Statistical Package of Social Science). Findings show the two English scores of CEE and NETPAW, as well as motivation, attitude and motivational intensity are strongly correlated to one another. In addition, motivational intensity is related to score of NETPAW, but anxiety is the best predictor of students' score of NETPAW positively. It's expected that the findings can provide teachers with some hints for more effective foreign language teaching and learning by being aware of students' individual differences.

**Keywords:** Anxiety, motivation, attitude, foreign language learning, CEE, NETPAW.

## 1 Introduction

Many learners regard foreign language learning as an anxiety-provoking experience which affects their language performance in one way or another. Hence, the role of anxiety on foreign language learning has been attracting lots of attention from the mid-1970s, in particular, since the early 2000s, there have been a growing number of studies of Asian learners of Japan (Andrade & Williams, 2009; Hashimoto, 2002), China (Hu, 2002; Na, 2007), Taiwan (Cheng, 2002; Chung, 2010; Hou, et al., 2012; Kao & Craigie, 2010; Wu, 2010), Korea (Kim, 2000), even Vietnam (Linh, 2011), the Philippines (Lucas, 2011; Sioson, 2011) and many others. On the other hand, motivation has long been regarded as a key to learning, and is "a major factor in promoting language retention" (Gardner & Lysynchuk, 1990, p.267), while "developing sound attitudes is the first step toward the achievement of bilingualish" (Titone, 1990, p.1). It's believed that to be successful in foreign language learning, learners should have

both the “skill” and the “will” (motivation), so to put the two crucial factors together, the study intends to investigate the roles of anxiety and motivation in Taiwanese college students’ English learning.

## 2 Literature Review

### 2.1 Characteristics of Foreign Language Learning Anxiety

Language anxiety's affect on language learning is two folds: positive and negative. Some consequences caused by language anxiety are proposed below:

**Positive Effects.** Appropriate tension is normal and necessary. It is suggested that some anxiety can improve performance (Scovl, 1978), positively relate to motivation, and influence both the quality of performance and the amount of effort invested in it. For students with higher self-esteem and strong motivation, anxiety may force them to study harder, arouse their potential and bring about unanticipated better outcome.

**Negative Effects.** Anxiety's another affect lies in its negative influences on other variables, such as motivation, attitude, and strategy use, as well as in its interfering with language learning process and performance. Findings also show that anxiety is negatively correlated with Field Independence, participation of classroom activities, short-term and long-term memory, TOEFL scores and language achievement (Chung, 2010; Horwitz, et al.,1986; Hou, et al., 2012; Kao & Craigie, 2010; Linh, 2011; Wu, 2010).

### 2.2 Factors Affecting Language Anxiety

According to Horwitz, Horwitz, and Cope (1986), learning anxiety is “a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning” ( p.128), and may occur any time during the learning process. Horwitz, et al. (1986) divided the 33 items of the Foreign Language Classroom Anxiety Scale (FLCAS) into three categories relating to general sources of anxiety, including communication apprehension, test anxiety, and fear of negative evaluation.

Related to the three categories, Chung (2010) defines factors affecting language anxiety as factors dealing with learner, teacher, subject matter, and learning context. Later, in Linh’s study (2011), six possible factors contributing to language anxiety are categorized as (1) personal and interpersonal anxieties, (2). learner beliefs about language learning, (3). instructor beliefs about language teaching, (4). classroom procedures, and (6). language testing.

Particularly, an interesting finding was found in Hou, et al.’s research (2012) The study concluded that “Teachers’ beliefs have impacts on their students’ anxiety about foreign language learning” (p.250). For example, comparing with American teachers, many Chinese teachers tend to emphasize more on the importance of grammar, excellent pronunciation, and immediate error correction. Consequently, Chinese students

are more anxious than American students about feeling overwhelmed by the number of rules, being laughed at by other students, and being corrected by teachers whenever they make a mistake.

### **2.3 Motivation and Attitude toward Foreign Language Learning**

Gardner & Lambert (1959) were the first to introduce the integrative-instrumental approach to measuring motivation. Attention was shifted from the study of learner's behavior to the learning process of language learners. It was this shift that gave definition to the field of second/foreign language learning. Integratively motivated learners are those who wish to identify with another ethnolinguistic group, whereas instrumentally motivated learners are those who learn a second/foreign language for utilitarian purposes. Although it has been supported that motivation is the most important factor in second language achievement and proved to be related to attitude and motivational intensity (Hou, 2010), yet some findings failed to find out the relationship between motivation and English achievement (Cheng, 2002). Titone (1990) focused on the role of attitude in second language learning. He indicated that attitudes "strictly tied up with motivational dynamics... work most powerfully, especially in acquiring mastery in a second language (p.2). Furthermore, some findings did find the relationship between attitudes and other variables related to foreign language achievement (Hou, 2010).

## **3 Methodology**

### **3.1 The Research Questions**

The study intends to answer the following research questions:

1. Is there any relationship between Taiwanese EFL college students' foreign language learning anxiety and foreign language learning motivation?
2. Are foreign language learning anxiety and motivation predictive to Taiwanese EFL college students' English proficiency?

### **3.2 Purposes of the Study**

The purposes of the study are to investigate Taiwanese EFL college students' English learning anxiety and motivation as well as the prediction of their English proficiency.

### **3.3 Research Methodology**

A case study and convenience sampling were used for the research methodology. It is the study of a bounded system, which is in a particular circumstance and with a particular problem, and also gives readers "space" for their own opinions (Stake, 1988). In addition, the subjects included in the sample were "whoever happens to be available at that time" (Gay & Airasian, 2003, p.112).

### 3.4 Subjects

One hundred and forty-one freshmen from 7 departments at a private university in south Taiwan participated in the study, including 56 male students (40%) and 85 female students (60%). In addition to their English scores of CEE (College Entrance Exam) in 2011 adopted, they took a National English Test in Proficiency for All on the Web (NETPAW), reading part (CEF A2), and filled out a questionnaire dealing with their anxiety and motivation about English learning.

### 3.5 Data Collection Instrument

The research instruments include questionnaires of Foreign Language Classroom Anxiety Scale (FLCAS), Motivation/Attitude, as well as English scores of College Entrance Exam (CEE) and National English Test of Proficiency All on the Web (NETPAW).

The Foreign Language Classroom Anxiety Scale (FLCAS), designed by Horwitz, Horwitz, and Cope (1986), contains 33 items to be responded to on a five-point Likert scale, ranging from 1 (SD=strongly disagree) to 5 (SA=strongly agree), indicating level of anxiety. Among them, nine items are negatively stated (items 2,5,8,11,14,18,22,28, and 32), which need to be recorded reversely. For easy to read, the questionnaire items were translated into Chinese for students to fill out.

In Taiwan, high school graduates are supposed to have the English proficiency of Intermediate Level (B1), while junior high school graduates, Elementary Level (A2) (LTTC, 2011). Since the average score of the subjects' College Entrance Exam (CEE) is low ( $M=23.05$  out of 100), indicating the CEE is too difficult for most of them, it's appropriate to adopt another test with a lower level, that is Level A2, elementary level. Hence, in addition to students' English scores of CEE in the summer of 2011, their scores of NETPAW (A2) taken in late September that year were used as students' another English performance.

Along with descriptive statistics of mean, standard deviation, and percentages, a Pearson correlation and Regression Analysis were used to answer the research questions. All available data were processed by SPSS 16 (Statistical Package of Social Science). In this study, the significance level was set at  $p<.05$ .

## 4 Findings and Results

Findings include the reliability of the questionnaire; descriptive analysis, relationship and regression analysis of students' English scores of CEE and NETPAW, foreign language learning anxiety and motivation. The findings are described below:

### 4.1 The Reliability of the Research Instrument

The reliability of the questionnaire of Foreign Language Classroom Anxiety Scale (FLCAS), Motivation, Attitude, and Motivational Intensity is Cronbach Alpha =.819,

.858, .824, and .775, respectively. "If a test were perfectly reliable, the reliability coefficient would be 1.00....However, no test is perfect reliable." (Gay & Airasian, 2003, p.141). Hence, the results of the reliability coefficient between .775 and .858 indicate that the research instruments are acceptable and reliable.

#### 4.2 Descriptive Analysis of English Scores of CEE, NETPAW, Anxiety and Motivation

The results reveal that students' English proficiency is not satisfactory and their anxiety level is above average ( $M=3.08$ ). As for Foreign Language Classroom Anxiety Scale (FLCAS), the top sources of their anxiety come from worrying about the consequences of failing the English class ( $M=3.54$ ), having to speak without preparation ( $M=3.51$ ), feeling that the other students speak better ( $M=3.42$ ), having not prepared in advance when English teacher asks questions ( $M=3.42$ ), finding themselves thinking about things that have nothing to do with the course ( $M=3.41$ ), and keeping thinking that other students are better than they are ( $M=3.41$ ).

In light of students' orientations to learn English, the top five reasons for them to learn English are: "English seems of great importance today" ( $M=4.17$ ); "To get a better job" ( $M=4.15$ ); "To travel abroad" ( $M=4.08$ ); "To pass exam" ( $M=4.02$ ); "To promote educational and cultural background" ( $M=3.76$ ). On the other hand, less students are motivated to learn English because they want "To think and behave like an English speaking person" ( $M=2.62$ ); or "To leave Taiwan and become a member of American society" ( $M=2.81$ ); or "To be an educated person" ( $M=3.38$ ). Regarding to students' attitudes toward English learning and culture, they wish they "could speak English fluently" ( $M=4.18$ ); "English is important, because the people who speak it are important" ( $M=4.14$ ); "English is an international language, everyone should learn English" ( $M=4.08$ ); and in addition to English, they "want to learn another foreign language in the future" ( $M=3.92$ ). As for English learning, they "enjoy listening to English songs and news broadcasts" ( $M=3.68$ ) and "enjoy speaking English" ( $M=3.12$ ), but not "enjoy reading English newspapers, magazines, or original publications" ( $M=2.82$ ); particularly, nor "enjoy writing diary, letters, or compositions in English" ( $M=2.53$ ). In addition, for motivational intensity, 85.5% of the students confessed that they "once in a while" actively think about what they have learned in English class" and when their teacher wanted someone to do an extra English assignment, 76.0% of them would only do it if the teacher asked them directly; however, if there were a local English TV station, 73.7% of them would "turn it on occasionally". The individual mean and standard deviation of the research instrument is shown below:

**Table 1.** Mean and standard deviation of the research instrument

Factor	N	Low	High	Full	M	SD	level
CEE	129	3	50	100	23.05	9.08	CEF A2-B1
NETPAW	113	15	87.5	100	51.84	17.21	CEF A2

**Table 1.** (Continued)

Anxiety	135	1.85	4.15	5	3.08	.51
Motivation	141	1.25	4.94	5	3.60	.52
Attitude	141	1.84	4.53	5	3.49	.44
Motivational intensity	141	1.00	2.80	3	2.10	.34

**4.3 Correlation among English Scores of CEE, NETPAW, Anxiety, and Motivation**

By using Pearson Correlation analysis, it reveals that the English score of CEE is correlated to the score of NETPAW ( $p < .01$ ) and attitude ( $p < .05$ ). As for the score of NETPAW, it's correlated to anxiety ( $p < .01$ ), attitude ( $p < .05$ ) and intensity ( $p < .01$ ). In addition, motivation, attitude, and intensity are strongly correlated to one another ( $p < .01$ ). All are shown below:

**Table 2.** Correlation among English scores of CEE, NETPAW, anxiety, and motivation

	CEE	NETPAW	anxiety	motivation	attitude	intensity
CEE	--	.437**	.008	.120	.180*	.073
NETPAW		--	.269**	.093	.166*	.249**
Anxiety			--	-.141	-.106	.074
motivation				--	.784**	.451**
Attitude					--	.500**
Intensity						--

\*  $p < .05$     \*\*  $p < .01$

**4.4 Regression Analysis for Motivation with English Scores of CEE and NETPAW**

By Regression Analysis, it's found none of the motivation variables is predictive of CEE scores. But among them, only motivational intensity is predictive of NETPAW score ( $t = 2.720, \beta = .007$ ). The findings are shown below:

**Table 3.** Regression analysis for motivation with English scores of CEE and NETPAW

Variables	CEE		NETPAW	
	<i>t</i>	$\beta$	<i>t</i>	$\beta$
(Constant)	1.747	.083	1.895	.060
Motivation	-3.80	.705	-1.113	.267
Attitude	1.798	.074	1.257	.210
Intensity	-2.96	.768	2.720	.007

\*  $p < .05$     \*\*  $p < .01$

#### 4.5 Regression Analysis for Motivation and Anxiety with English Scores of CEE and NETPAW

However, if anxiety is added, the findings are different. Findings show that none of the variables of both motivation and anxiety is predictive of CEE score, but motivational intensity is no longer predictive of NETPAW score. On the contrary, anxiety becomes the only predictor, of NETPAW scores, instead ( $t = 2.957$ ,  $\beta = .004$ ). The findings are shown below:

**Table 4.** Regression analysis for motivation and anxiety with scores of CEE and NETPAW

Variables	CEE		NETPAW	
	<i>t</i>	$\beta$	<i>T</i>	$\beta$
(Constant)	1.514	.133	-1.352	.179
Foreign Language Classroom Anxiety Scale				
Motivation	-.350	.727	.029	.977
Attitude	1.188	.238	1.007	<b>.316</b>
Intensity	.066	.948	1.770	.080

\*  $p < .05$     \*\*  $p < .01$

## 5 Conclusion and Implication

Some conclusions and implications derived from the study are described below:

### 5.1 Conclusion

1. The reliability of the research instrument is acceptable (between .775 and .858).
2. The two English scores of CEE and NETPAW are found to be correlated to each other, and motivation, attitude and motivational intensity are correlated to one another, too.
3. Motivational intensity is positively predictive to NETPAW score, but when Anxiety is added, the best predictor of NETPAW score becomes Anxiety, positively. The positive prediction of anxiety to English score is quite different from some other studies which reveal that anxiety is negatively related to foreign language learning (Chung, 2010; Hou, et al. 2012; Linh, 2011).

### 5.2 Implication

1. Motivational intensity and Anxiety are found positively predictive of students' English learning, so teachers should be aware of the important roles in their learning process, encourage students to put more effort (motivational intensity) and give them appropriate pressure (anxiety).

2. The findings show that suitable evaluation (i.e. NETPAW here) can be used to measure students' real competence and figure out the possible factors related to their learning, so it's suggested that teachers take students' individual differences into consideration and adopt some types of evaluation with good reliability and validity based on students' prior knowledge.

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