THE STUDY ON MOTIVATION AND ANXIETY OF ENGLISH LEARNING OF STDENTS AT A TAIWAN TECHNICAL UNIVERSITY

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ABSTRACT: The purpose of this study is to investigate inner motivation and anxiety of English learning as it is experienced by English as Foreign Language (EFL) learners with respect to various majors, differences in genders and language proficiency. Specifically, it studies EFL students at a technical university in Taiwan. This study surveyed and analyzed 857 freshmen from a technical university in Taiwan. Based on the analyses of structural equation modeling, the results indicated that English learning anxiety impacted English learning motivation in different ways depending on genders and majors. On the other hand, English learning anxiety had little effect on English learning motivation for the different levels of language proficiency groups, especially for learners in the intermediate group. Generally speaking, most of the learners were prone to instrumental rather than integrative motivation in terms of learning English, and their levels of English language class anxiety were higher than their levels of English use and test anxiety. The findings can help clarify the nature of both English learning anxiety and English learning motivation as psychological constructs to students.

KEYWORDS: English learning, anxiety, motivation, Taiwan English learners

INTRODUCTION

There has been a good development of literature in the field of English language instruction dealing with the psychological aspects of learning, such as motivation and anxiety. Numerous researchers have shown that both motivation (Clement et al. 1994; Dornyei, 2001; Gardner and MacIntyre, 1993; Mehrpour and Vojdani, 2012; Tuan, 2012) and anxiety (Horwitz et al. 1986; Liu, 2006; Liu and Jackson, 2008; MacIntyre and Gardner, 1989) are significant factors in second and foreign language acquisition and affectivity. For the past three decades, motivation has been an important area for empirical research and theoretical work within the
context of learning mother tongue, foreign language, and second language. Motivation represents one of the most appealing variables used to explain the differences in learners during language learning (Pintrich and Schunk, 2002), and motivation is one of the most significant factors that impacts the rate and success of language learning (Dornyei, 1998). Foreign language anxiety is becoming ever more vital in second language acquisition studies. Generally, anxiety is viewed to be detrimental to performance on learning tasks that require attention and deliberate effort (Roccas & Brewer, 2002). Horwitz, Horwitz, and Cope (1986) defined anxiety as a “subjective feeling of tension, apprehension, nervousness, and worry” (p.125). A study conducted on foreign language anxiety has shown that anxiety might prevent language learners from achieving a higher level of proficiency in foreign languages and it is negatively related to foreign language learning (Aida, 1994). Some studies (e.g., Brown, Robson, and Rosenkjar, 2001; Gardner, Masgoret, Tennant, and Mihic, 2004; Hao, Liu, and Hao, 2004) have explored motivation and language anxiety, but there have been few studies on the direct relationship between the two affective factors.

As indicated above, both motivation and anxiety play a vital part in English learning outcomes, moreover, they are closely related to each other in second and foreign language acquisition (Liu and Huang, 2011). Additionally, various levels of foreign language learners’ achievements might be influenced by motivation and anxiety. It is, therefore, significant to explore the relationship between motivation and anxiety in terms of students’ English learning achievement (Hao, Liu, and Hao, 2004). In the field of school education, such as high schools and colleges, much research has been conducted on motivation and anxiety in Taiwanese English learners. However, the research on motivation and anxiety of English learners in technical universities in Taiwan is quite limited. Given the context technical universities have been developing and the need for their students learning English has been increasing. Therefore, this study aims to help determine how and to what extent foreign language learning motivation and anxiety interact with each other that influence English language learning performances among technical university students in Taiwan. The following research questions are developed to inform the study:

1. How do foreign language learning motivation and anxiety affect technical university students by gender?
2. How do foreign language learning motivation and anxiety affect technical university students by major?
3. How do foreign language learning motivation and anxiety affect technical university students by English language proficiency level?
LITERATURE REVIEW

Motivation in Learning Language
According to Gardner and Lambert (1972), there are two kinds of motivation: integrative motivation, referring to a holistic learning approach toward the speech and culture of the target language group, and instrumental motivation, referring to language learning for more immediate or practical goals. More recently, new motivation classifications have been identified, namely intrinsic and extrinsic motivations. To be specific, intrinsic motivation, like integrative motivation, implies learning a second or foreign language is for the pleasure inherent in doing so. Extrinsic motivation like instrumental motivation, refers to the drive to learn a second/foreign language that is instigated by some punishment or reward from the social environment (Noels et al., 2001). Despite that fact that both types of motivation are factors vital to success in learning a second or foreign language, much debate among researchers has been focused on which kind of motivation is more significant L2 for learners (Dornyei, 2001). Researchers have different perspectives for language learning outcomes toward the two types of motivation. For example, integrative motivation was viewed as superior to instrumental motivation for predicting the success of L2 learning (Gass and Selinker, 2001), and it is claimed that intrinsic motivation plays an important part in learning a second/foreign language (Noels et al., 2001). If learners respect the target culture, they might practice the language and improve their language skills (Cook, 2001). From another point of view, Liao (1996) states that Chinese students tend to be motivated more instrumentally than integratively in terms of learning a second or foreign language, because of their desire to obtain good scores, and the employment as well as financial benefits that can result (Liao, 1996).

Anxiety in Learning Language
Research has been conducted to examine various variables of foreign language learning anxiety. In general, these variables are divided into two main categories: situational variables and learners’ variables. Situational variables include, for instance, course contents, course level, course activities, teacher behavior and attitudes, and social interaction among peer group learners (Jackson, 2002). Learners’ variables include, gender, personality, attitude, motivation, self-belief, culture, ability, and age variables among others (Brown, Robson, & Rosenkjar, 2001; Campbell, 1999; Gregersen& Horwitz, 2002). The above factors and variables interact in complicated ways that cause learning anxiety for many students. Recently, the identification of foreign language learning classroom anxiety has attracted a lot
of attention from researchers. Learners may show different anxiety-related behaviors and reactions unique to the foreign language classroom setting, such as, trying to avoid difficult linguistic structures, getting nervous during learning activities, an unwillingness to volunteer answers and participate in oral activities, coming unprepared to class, avoiding speaking the target foreign language in class, and being less willing to communicate and express themselves compared to more relaxed learners. (MacIntyre, 1995; MacIntyre, et al., 1997).

In terms of causes of language anxiety, Horwitz et al. (1986) theorizes that foreign language anxiety in the classroom can be attributed to three main performance anxieties: communication apprehension, social evaluation, and test anxiety. Besides, Young (1991) identifies six potential interrelated sources of language anxiety, which may be attributed to the foreign language classroom environment: personal and interpersonal anxieties, which could be related to fear of a real or anticipated act of speaking, learner beliefs toward language learning, teacher beliefs about language instruction, interaction between instructor and learners, classroom procedures, and language exams. Therefore, the influence of anxiety on the language learning process and product makes the identification of language learning anxiety a significant component of foreign language research for language learners. Because language learning anxiety is complicated and multidimensional, it manifests itself in learners differently.

Relationships between Motivation and Anxiety for Learning Language

Some studies regarding the relationship between language motivation and anxiety in language learning have drawn the interest of several researchers. For example, Gardner, Day, and MacIntyre (1992) mentioned that integratively motivated learners “are less anxious in L2 contexts” (p.212) than learners who are instrumentally motivated. Their findings indicate that anxiety and motivation are “two separate dimensions with overlapping behavioral consequences” (p.212). Noels et al. (1999) stated “the more students feel motivated, the less effort they will expend and the more anxiety they will feel” (p.31). In the view of Brown, Robson, and Rosenkjar, (2001), learners’ motivation and anxiety were negatively correlated and a lack of motivation could cause anxious behaviors. Further, Liu (2006) found that the students’ motivation was positively correlated with their English proficiency. An interesting negative correlation between second and foreign language learning anxiety and achievement is also addressed in the studies (Horwitz, 2001; Aida, 1994). Empirical research has shown that the more anxious foreign languages students are, the less willing they are to get involved in learning activities, and thus to have lower performance results than those who are less-anxious students (Aida, 1994).
Currently, national English proficiency is an index of competitiveness in Asia, Taiwan is no exception. Observing English language instruction in Taiwan reveals a tendency toward more traditional and teacher-centered methods. This view is shared by Huang (2001) who summarizes English language instruction in Taiwan in the following manner. “Although the Ministry of Education has issued new curriculum standards based on the Communicative Teaching Approach, teachers are not using this approach and teacher-centered practices remain dominant” (p. 154). Additionally, Chu (2003) mentions, “the pervasive methods firmly established in Taiwan continue to be traditional rote teaching methods (p.26).” In short, English language instruction in Taiwan tends to depend primarily on teacher-centered practice rather than student-centered approach. The author of this study observes that English class instruction portrays an air of formality. In most Taiwanese classes, students remain quiet most of time throughout the class session. For example, while they are not unengaged or inattentive, they simply do not tend to ask questions and are not eager to answer questions unless asked by the teachers. Thus, only when the teachers ask individual students directly, would they get a response and yet students get nervous by being called to respond to questions. Because of this, some students are under a lot of pressure and anxiety, which contribute to the lack of learning English during class. Learning English is a terrible nightmare for most of them especially making mistakes in front of the class.

As can be seen, language-learning outcomes appear to be particularly prone to the complex effect of motivation and anxiety, which, as suggested by existing literature, might be related to each other to some degree (Liu and Huang, 2012). However, the effect of motivation and anxiety on the process of foreign language acquisition has been somewhat ignored in the English teaching and learning environments of Taiwan; little empirical data is available for researchers to explore the affective domains of Taiwanese English learners. The present study attempts to provide some instructional implications to today’s English classrooms especially at technical universities in Taiwan and enhance language-learning effectiveness in foreign language learning.

METHOD

Participants
The total participants in this study were 857 (453 male and 404 female) freshmen who were placed into three proficiency levels (pre-intermediate, intermediate, and upper-intermediate) based on their English scores of the University Entrance Exam. The total test score was 100. Based on the criterion-referenced placement, the score of 60 was a passing score in Taiwan
grading system. 231 participants who received scores below 60 were pre-intermediate level group; 420 participants between 60 and 80 were classified into intermediate level group; and 206 participants who obtained above 80 points were classified into upper-intermediate level group. All were enrolled in the freshmen English course offered by the University. The participants were basically from two different majors: English-majoring students (n=112), and non-English-majoring students (n=745).

Instrument
Survey method was applied to this study, which consists of a 16-item Foreign Language Learning Motivation Scale (See Appendix A), a 24-item Foreign Language Classroom Anxiety Scale (See Appendix B), and demographic information questionnaires. All the items except the background questionnaire items were placed on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree”. The Foreign Language Learning Motivation and the Foreign Language Classroom Anxiety questionnaires in the Chinese language were administered to the participants; Mandarin Chinese was used to avoid unnecessary misreading and miscomprehension in terms of questionnaire contents.

The 16-item Foreign Language Learning Motivation Scale was directly adopted and developed from the Motivation Test Battery (Gardner and Lambert 1972), and designed to measure four dimensions of motivation: integrative orientation (questions 1 to 4), instrumental orientation (questions 5 to 10), resultative orientation (questions 11 to 13), and intrinsic orientation (questions 14 to 16). Originally, the Foreign Language Classroom Anxiety Scale was directly adopted from Horwitz et al. (1986), and there were 33 question items, which were divided into three broad categories of Foreign Language Classroom Anxiety Scale: communication anxiety, test anxiety, and fear of negative evaluation. The researchers eliminated nine inappropriate items out of the 33 original questionnaire items as suggested by a review panel. Finally, this Foreign Language Classroom Anxiety Scale was used to measure two dimensions of foreign language classroom anxiety: English use and test anxiety (questions 1 to 9), and English language class anxiety (questions 10 to 24). The Cronbach’s alpha was .84 referring to the final version of the 24-item questionnaires as being reasonably reliable for the formal final version.

Data Collection
All participants completed the questionnaire during class time midway through their first semester. The survey questionnaires took around 30 minutes to complete. The students were informed that the survey would have no effect on their grade.
Data Analyses
In order to derive a distinctive and reliable subscale for each motivational and anxiety subtype, the data were subjected to a structural equation modeling with AMOS 4.0. Structural equation modeling (SEM) is a statistical method used for testing and estimating casual relations using a combination of statistical data and qualitative causal assumptions. Besides this, the analysis tests the extent to which the theoretical model adequately represents the covariance matrix of the data. The fitting function estimated by the procedure was assessed through several indices, namely Chi-Square statistics, the Goodness of Fit Index (GFI), the Adjusted Goodness of Fit Index (AGFI), Root Mean Square Residual (RMR), and Root Mean Square Error of Approximation (RMSEA) (Kaplan, 2000). Finally, structural equation modeling (SEM) analyses were run to explore the relationship between foreign language motivation and anxiety among the participants.

RESULTS
Based on the analyses of structural equation modeling, the result has shown that the model of the male group had a good fit to the data (GFI=.93, AGFI=.81, RMR=.03, RMSEA=.13), and there was a highly standardized path of coefficients (r=.97) between the factors of anxiety and learning motivation. In other words, anxiety had a great influence on learning motivation in the male group. To be specific, instrumental motivation (standardized coefficients =.69), integrative motivation (standardized coefficients =.67), and resultative motivation (standardized coefficients =.60) had a strong path estimate to learning motivation. Intrinsic motivation (standardized coefficients =.47) had a less strong relationship with learning motivation. On the other hand, English language class anxiety (standardized coefficients =.63) was at a stronger level than English use and test anxiety (standardized coefficients =.46). (See Table 1)

Table 1 The Model of English Learning Motivation and Anxiety in the Male Group

![Diagram of Motivation and Anxiety in the Male Group]
In the female model, the goodness-of-fit indexes showed that the model fit the data (GFI=.99, AGFI=.98, RMR=.00, RESEA=.00), and there was a moderately standardized path of coefficients (r=.62) between the factors of anxiety and learning motivation. In other words, anxiety had a moderate impact on learning motivation in the female group. To be specific, instrumental motivation (standardized coefficients =.61), had a strong path estimate on learning motivation, and resultative motivation (standardized coefficients =.31) had a weaker effect on relationship with learning motivation. On the other hand, the relationship between English use and test anxiety (standardized coefficients =.58) was at a higher level than the English language class anxiety (standardized coefficients =.50). (See Table 2)

Table 2. The Model of English Learning Motivation and Anxiety in the Female Group
By contrast, the model of the non-English-majoring group had a good fit to the data (GFI=.93, AGFI=.79, RMR=.03, RMSEA=.15), and there was a highly standardized path of coefficients (r=.95) between the factors of anxiety and learning motivation. In others words, anxiety had a great influence on learning motivation in the non-English-majoring group. To be specific, integrative motivation (standardized coefficients = .77), resultative motivation (standardized coefficients = .67), and instrumental motivation (standardized coefficients = .62), had a strong path estimate to learning motivation, while intrinsic motivation (standardized coefficients = .58) was significantly weaker. On the other hand, English language class anxiety (standardized coefficients = .61) was at a stronger level than English use and test anxiety (standardized coefficients = .57). (See Table 4)
Table 4 The Model of English Learning Motivation and Anxiety in Non-English-Majoring Group

Unfortunately, we could not set up the models for higher-intermediate and lower-intermediate levels of language proficiency based on the analyses of structural equation modeling. However, the goodness-of-fit indexes of intermediate level of language proficiency showed that the models fit the data (GFI=.99, AGFI=.97, RMR=.00, RESEA=.00), and that there was a weakly standardized path of coefficients (r=.41) between the factors of anxiety and learning motivation. Overall it appeared that anxiety had a weak impact on learning motivation in the intermediate level language proficiency group. In particular, instrumental motivation (standardized coefficients =.24), had a weak path estimate to learning motivation, and resultative motivation (standardized coefficients =.10) had a very weak relationship with learning motivation. By contradistinction, English language class anxiety (standardized coefficients =.98) was at a higher level than English use and test anxiety (standardized coefficients =.23). (See Table 5).
When it comes to the main contributions of this study, the findings could be useful and valuable for researchers and instructors in improving students’ English achievement. With increased motivation to learn English, students might learn English actively in their daily life, which might in return result in lower anxiety in English learning. Also, English instructors can provide effective teaching and learning strategies with their students.

CONCLUSIONS AND DISCUSSIONS

In conclusion, the impact that anxiety has on English learning motivation with regard to gender is undeniable, especially for the male group. However, in both the male and female groups, English learning motivation is prone to instrumental motivation. The results of this study are similar to Svanes’s study (1987). According to Svanes (1987), Asian students were considered instrumentally motivated in terms of learning a second language, and the types of motivation were related to the backgrounds of the students.

In terms of their learning anxieties, male and female groups are quite varied. In the male group, English class anxieties are at a higher level than English use and test anxiety. On the contrary, English use and test anxiety of the female group are at a higher level than their
English class anxieties.

Also, anxiety has an influence on English learning motivation with respect to the different majors, especially in non-English-majoring group. In general, instrumental motivation plays an important role in English learning motivation to English-majoring students, whereas, integrative motivation plays a significant part in English learning motivation to non-English-majoring students. Interestingly, whether looking at English-majoring or non-English-majoring students, the results show that English class anxieties are at a higher level than English use and test anxiety. The findings of this study are consistent with Huang’s (2001) statements. Huang (2001) noted that English language instruction in Taiwan focused on more teacher-centered practices rather than student-centered practices. Based on this, some students are anxious because they are under a lot of pressure, and so they lack motivation to learn English in class.

With respect to varied English language proficiency groups, anxiety only had a slight effect on English learning motivation of the intermediate group. Tellingly, whether the students were at a higher-intermediate, intermediate or lower-intermediate level, they indentified that their English class anxieties were more extreme than those regarding English use and test anxiety. The finding of this study is in accordance with similar to Chu’s (2003) statements. Chu (2003) had shown that English language instruction in Taiwan is the traditional rote teaching method. Because of this teaching method, some students are tired of learning English, are lacking of motivation, and have elevated learning anxiety in class. To be honest, learning English is a terrible nightmare to most of them. Consequently, we need to find alternatives to improve the quality of English curriculum and instruction in Taiwan.

There is no denying that the factors of motivation and anxiety influence learners in the second/foreign classroom. In terms of language learning, it is significant to understand how motivation and anxiety interact with each other. Based on Brown, Robson, and Rosenkjar, (2001), high motivation and low anxiety are two key factors that related to success in language learning. In order to reduce learners’ anxiety and increase their learning motivation, instructors might also take the affective learning atmosphere into consideration. In a learning environment where learners can learn without pressure and stress, they may display positive motivation and low anxiety in the classroom. There are some effective suggestions for the affective learning atmosphere in the second/foreign language classroom: encouraging students by using positive feedback instead of negative comments, being patient and enthusiastic with student’s learning and improvement, creating a relaxed and cooperative
learning environment, where no one will be single out, avoiding fierce competitive evaluation and assessment, and setting up reasonable and suitable learning goals. Besides this, teachers should be aware of students’ language proficiency levels when they adopt the learning materials and activities.

To reduce language learning anxiety, Horwitz, et, al (1991) noted that educators should help anxious students to deal with existing anxiety-provoking situations and endeavor to make the learning context less stressful. Creating a low-anxiety classroom atmosphere is clearly a vital prerequisite to language learning success. Language classrooms are an “inherently face-threatening environment” (Dornyei, 2001, p.91) as learners are expected to communicate using a “severely restricted language code” (p.91). Therefore, instructors should encourage students to recognize their language anxieties and fears and offer some strategies to overcome them. In the long run, teachers can help students by reducing negativity of learning English, raising students’ self-belief and assisting them in alleviating the anxiety caused by expectations of failure.

Finally, the results of this study are based on questionnaire data and not direct observation of student and teacher behavior in the classroom. Therefore, we do not state that motivation and anxiety that the respondents attributed to the teachers was actually caused by what the teachers did or did not do in specific-learning situations. Future research could also study the affective experiences of learners during language learning using qualitative research methods such as direct classroom observation, learning diaries, and interviews.

References


Appendix A: Foreign Language Learning Motivation Questionnaire (English Version)

1. English will help me acquire new ideas and broaden my outlook.
2. English will enable me to better understand and appreciate English culture.
3. I am interested in English music.
4. I can learn more about the world through learning English.
5. English is necessary to get a good jog.
6. English is essential to be active in society.
7. English will help me if I should ever travel abroad.
8. English is essential for personal development.
9. English will be helpful for my future career.
10. English will help me to pass my exams and graduate from the college.
11. I like to discuss something in English but not in first language.
12. I enjoy discussions in English class.
13. It is important to use a course book in class.
14. I feel freer to express myself in English than I do in first language.
15. I try to use English as much as possible in class time.
16. I always enjoy learning English.

(Chinese Version)

1.  英文幫助我獲得新觀念並拓展我的眼界。
2.  英文讓我更了解並欣賞他國文化。
3.  我對英文歌曲感興趣。
4.  我透過英文更認識這個世界。
5.  要找到好工作,英文能力是必備的。
6.  要在社會上活躍，具備英文能力是基本的條件。
7.  當我出國旅遊時，英文對我頗有幫助。
8.  英文對個人的發展是重要的。
9.  英文對我將來的就業很有幫助。
10. 英文幫助我通過考試，並且順利畢業。
11. 我喜歡用英文討論事情勝於用中文討論。
12. 我很享受在英文課堂上的討論。
13. 在課堂上使用教材是很重要的。
14. 我覺得用英文表達比用中文來得更自在。
15. 我盡可能在英文課中多使用英文。
16. 我總是樂於學習英文。
Appendix B: Foreign Language Classroom Anxiety Questionnaire (English Version)

1. I am usually at ease during tests in my English language class.
2. I worry about the consequences of failing in English.
3. I get nervous when the English language teacher asks questions which I have not prepared in advance.
4. The more I study for a language test, the more confused I get.
5. When called up on to use my English, I feel very much at ease.
6. I feel anxious if someone asks me something in English.
7. I would feel uncomfortable speaking English under any circumstances.
8. I would feel quite relaxed if I had to ask street directions in English.
9. It would bother me if I had to speak English on the phone.
10. I don’t usually get clear idea when I have to respond to a question in English language class.
11. I get nervous and confused when I am speaking in our English language class.
12. I always feel that the other students speak English better than I do.
13. I feel confident when asked to participate in English language class.
14. It embarrasses me to volunteer answers in our English language class.
15. I am afraid the other students will laugh at me when I speak English.
16. I don’t worry about making mistakes in English language class.
17. During English language class I find myself thinking about things that have nothing to do with the course.
18. I get upset when I don’t understand what the teacher is correcting.
19. Even if I am well prepared for English language class, I feel anxious about it.
20. I often feel like not going to English language class.
21. I am afraid that my English language teacher is ready to correct every mistake I make.
22. English language class moves so quickly, I worry about getting left behind.
23. I feel more tense and nervous in English language class than in other classes.
24. When I am on my way to English language class, I feel very sure and relaxed.

(Chinese Version)

1. 英文考試對我來說，輕鬆沒壓力。
2. 我擔心英文會被當掉。
3. 在課堂上我被點名用英文回答問題時，我常感到緊張。
4. 越學習英文越感到困惑。
5. 當我在英文課發言時，我感到有自信。
6. 假如有人要我用英文回答時，我會感到焦慮。
7. 不論在任何情況下講英文，我都覺得不舒服。
8. 假如路人用英文向我問路時，我不會覺有壓力。
9. 在電話中用英文交談，我覺得困擾。
10. 當我被要求在上課時用英文回答，我通常會腦筋一片空白。
11. 當我在英文課發言時，我感到很困惑、緊張。
12. 我總覺得其他同學的英語說得比我好。
13. 我上英文課時，覺得有自信。
14. 上英文課，要我主動回答問題，讓我覺得很尷尬。
15. 當我說英語時，我擔心其他同學會取笑我。
16. 我不擔心在英語課程中犯錯。
17. 上英文課時，我的思緒常會遠飄，不夠專心。
18. 當我聽不懂老師的指正時，我會感到懊惱。
19. 即使我在英語課程中準備周全，我仍感到焦慮、緊張。
20. 我常覺得不想上英文課。
21. 我害怕被英文老師糾正我的錯誤。
22. 英語課進度很快，我會擔心趕不上其他同學的程度。
23. 我覺得上英文課比其他課程更緊張。
24. 若能按照自己的方式學習英文，我會覺得自信且輕鬆。