

## The Relationships of Learning Styles, Learning Motivation and Academic Success in EFL Learning Context

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**Abstract:** This paper reports the findings of a survey of learning styles and learning motivation of EFL learners. It aimed to compare learning styles and motivation to learn English of Bangkok University students categorized by their background, and investigate the relationship among English background knowledge, learning styles, and learning motivation. The samples were 183 undergraduate students enrolled in Fundamental English course. The instrument in this study was a questionnaire. Results indicated that the level of learning styles and learning motivation in general were moderate. There were no statistically significant differences at .05 level found in students' learning styles and learning motivation as classified by gender, school type and field of study. As hypothesised, positive relationships were found among students' English background knowledge, learning styles, and learning motivation at .05 level, and students with higher English background knowledge were found to have a greater variety of learning styles and more motivation to learn English.

**Keywords:** learning styles, motivation, EFL learners

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### 1. Introduction

Learners' learning styles have an impact on their academic performance. Keefe (1979: 4) defined them as "cognitive, affective and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment." Kolb (1984) defined learning styles as the learner's preferred methods of processing and perceiving knowledge. Kolb developed a LSI (Learning Style Inventory) to determine individual preferences for four types of learning abilities.

1. Concrete Experience (CE - feeling): the ability to be involved in new experiences without bias or restraint
2. Abstract Conceptualization (AC - thinking): the ability to theorize logically, and to integrate observation into concepts
3. Active Experimentation (AE - doing): the ability to act by making decisions and problem solving
4. Reflective Observation (RO - watching): the ability to maintain multiple perspectives in observation and contemplation

The learning style questionnaire developed by Kolb categorizes learners as diverger, assimilator, converger, and accommodator. Divergers learn from feeling and have the ability to view concrete situations from several different viewpoints and approach problems through observation rather than action. Assimilators learn from reflective observation and tend to focus more on logical soundness and preciseness of the ideas, rather than their practical values. They prefer readings, lectures, exploring analytical models, and having time to think. Convergers learn from abstract conceptualization and like to experiment with new ideas, to simulate, and to work with practical applications. They can solve problems and make decisions based on finding solutions to questions or problems. Accommodators learn from active experimentation and tend to rely on others for information rather than technical analyses. People with this learning style prefer to work in teams to complete tasks.

Nelson et al. (cited in Drysdale, Ross & Schulz, 2001) found a correlation between learning style and increased levels of GPA. Dunn et al. (cited in Drysdale et al., 2001) found that making students aware of their learning style and helping them develop study skills compatible with their preferred learning style had a positive effect on academic performance. Castro and Peck (2005) carried out a study on learning styles and learning difficulties that foreign language students face at the college level and claim that a student's preferred learning style can help or hinder success in the foreign language classroom. However, when they analyzed the distribution of grades according to Kolb's learning style types, they found no significant correlation between learning style and grades.

Learning motivation is another most important factor in determining how well they learn foreign language. Various studies have found that motivation is very strongly related to achievement in language learning. According to Cunningsworth (1992), a student who is not well taught but is motivated will have better results in learning a foreign language than a student who is well taught but is not motivated. Chou (2007) points out that motivated learners learn more because they seek input, interaction, and instruction. When motivated learners encounter the target language input, they may pay attention to it and actively process it. Therefore, highly motivated people are nearly always achievers.

Both learning styles and learning motivation affect how students act perform in classroom activities, solve problems, and learn a foreign language. This study examined whether there is any relationship of the four learning styles as measured by the LSI, with learning motivation and student academic success in an English course. Although student success was determined by the course grade, which is not necessarily a precise indication of level of proficiency, in general, students and instructors have a tendency to equate success with an academic grade nonetheless.

## 2. Purposes of the Study

The objectives of this study were:

1. to study learning styles and learning motivation of EFL students
2. to compare learning styles and learning motivation of students with different background (gender, school type and field of study)
3. to investigate the relationship among English background knowledge, learning styles and learning motivation

## 3. Research Methodology

### 3.1 Population and samples

The participants included in this study were undergraduate students enrolled in Fundamental English course at Bangkok University. These students studied English as a foreign language. The samples were selected by the use of stratified random sampling technique. As a result, 183 students were participated in the data collection.

### 3.2 Research instrument

In order to identify students' learning styles and learning motivation, a questionnaire was used to collect the data. The first part gathered personal information from the respondents who were asked to answer the questions on gender, school type, field of study, and English background knowledge (grade). The second part was a survey of students' learning styles and learning motivation adopted from Ichikawa (2001, cited in Shwalb, Nakazawa & Shwalb, 2005). The questionnaire was prepared for rating in a form of five-rating scale.

### 3.3 Data analysis

The acceptable statistical significance level was set at alpha ( $\alpha$ ) < .05. After the receipt of the completed questionnaires, the data were statistically analyzed by using SPSS/Window 12 through the following steps:

1. The data of personal information were brought to calculate for average means.
2. The data of learning styles and learning motivation were brought to calculate for average means and standard deviation.
3. The means of learning styles and learning motivation were divided into three levels and interpreted in the form of range based on the criterion of  $\bar{x} \pm .5SD$ .

- The average mean of learning styles was 3.40 and standard deviation was .34.  
 $3.40 \pm (.5)(.34) \rightarrow 3.40 \pm 0.17$

Level of Learning Styles	Mean Range
high	3.58 – 5.00
moderate	3.23 – 3.57
low	1.00 – 3.22

- The average mean of learning motivation was 3.57 and standard deviation was .52.  
 $3.57 \pm (.5)(.52) \rightarrow 3.57 \pm 0.26$

Level of Learning Motivation	Mean Range
high	3.84 – 5.00
moderate	3.31 – 3.83
low	1.00 – 3.30

4. The independent-samples t-test was used to test the mean scores of two groups of subjects concerning their learning styles and learning motivation.

5. The One-Way Analysis of Variance (ANOVA) test was used to compare mean scores of three and more groups concerning their learning styles and learning motivation. Then the Scheffe test was used to test a statistically significant difference in the mean scores of any two groups.

6. The Pearson product-moment correlation coefficient test was used to investigate the relationship among English background knowledge, learning styles, and learning motivation.

## 4. Results

### 4.1 Results of fundamental analysis

#### 4.1.1 Level of learning styles

The study revealed that the level of learning styles in general was moderate ( $\bar{x} = 3.40$ ). Among four items of learning styles, the highest means were accommodating style, diverging style, and converging style respectively ( $\bar{x} = 3.49, 3.43, 3.36$ ). The lowest mean falling on assimilating style was at a moderate level ( $\bar{x} = 3.31$ ). The results were presented in Table 1.

Table 1 Mean and Standard Deviation of Learning Styles

Learning Styles	$\bar{x}$	S.D.	Level
1. Diverging style	3.43	.42	moderate
2. Assimilating style	3.31	.47	moderate
3. Converging style	3.36	.55	moderate
4. Accommodating style	3.49	.46	moderate
Total	3.40	.34	moderate

#### 4.1.2 Level of learning motivation

The study revealed that the level of learning motivation in general was moderate ( $\bar{x} = 3.57$ ). Among twelve items of learning motivation, the four highest means of opinion were items no. 5, 3, 6 and 4 respectively ( $\bar{x} = 4.10, 4.01, 3.97, 3.85$ ). These items were at a high level. The three lowest means were items no. 10, 9 and 7 respectively ( $\bar{x} = 2.60, 3.04, 3.19$ ). The results were presented in Table 2.

Table 2 Mean and Standard Deviation of Learning Motivation

Opinion: "I learn English because..."	$\bar{x}$	S.D.	Level
1. I feel good to become a knowledgeable person.	3.80	.91	moderate
2. I cannot have feeling of fulfillment if I do not learn.	3.56	.92	moderate
3. I want to be able to provide a broad-ranging perspective.	4.01	.78	high
4. Learning makes my brain work.	3.85	.87	high
5. What is learned will be useful in a job or daily life.	4.10	.87	high
6. It may be too late if I try to learn something when it is needed.	3.97	.90	high
7. People around me study hard.	3.19	.96	low
8. I feel guilty toward my parents and teachers if I do not learn.	3.65	1.10	moderate
9. I feel superior to other students when I do well on exams.	3.04	.97	low
10. I feel frustrated if my achievement is worse than that of most others.	2.60	1.04	low
11. educational status will help me to be wealthy in the future.	3.39	1.04	moderate
12. I will get benefits in society from my educational status.	3.68	.86	moderate
Total	3.57	.52	moderate

#### 4.2. Results of hypothesis testing

##### 4.2.1 Hypothesis 1 compared students' learning styles with different background information

The overall mean score of learning styles of female students ( $\bar{x} = 3.44$ ) was higher than that of male students ( $\bar{x} = 3.34$ ). However, both groups had learning styles at a moderate level. According to the results of the comparison of the mean scores of learning styles, there were no significant differences found in students' learning styles between two groups (male and female) at .05 level. That is, learning styles of male and female students were not different.

The results obtained from applying the ANOVA, revealed that no difference in overall learning styles among three school types (private schools, government schools and vocational education institutes) was found statistically significant at .05 level. Also, there were no statistically significant differences at .05 level found in students' learning styles as classified by field of study (science, math and language arts). This means that school type and field of study had no impact on students' learning styles.

##### 4.2.2 Hypothesis 2 compared students' learning motivation with different background information

The overall mean score of learning motivation of female students ( $\bar{x} = 3.68$ ) was higher than that of male students ( $\bar{x} = 3.44$ ). However, both groups had learning motivation at a moderate level. According to the results of the comparison of the mean scores of learning motivation, there were no significant differences found in students' learning motivation between two groups (male and female) at .05 level. That is, learning motivation of male and female students were not different.

The results obtained from applying the ANOVA, revealed that no difference in overall learning motivation among three school types (private schools, government schools and vocational education institutes) was found statistically significant at .05 level. Also, there were no statistically significant differences at .05 level found in students' learning

motivation as classified by field of study (science, math and language arts). This means that school type and field of study had no impact on students' learning motivation.

4.2.3 Hypothesis 3 investigated the relationship among English background knowledge, learning styles and learning motivation

The Pearson product-moment correlation coefficient test was used to find out whether there was a statistically significant relationship among English background knowledge, learning styles and learning motivation. This hypothesis was accepted.

Table 3 Correlations among Students' English Background Knowledge, Learning Styles and Learning Motivation

VARIABLE	English background knowledge	Learning styles	Learning motivation
English background knowledge	1.00		
Learning styles	.16*	1.00	
Learning Motivation	.24**	.53**	1.00

\* P < .05

\*\* P < .01

Table 3 shows that there was a positive relationship between English background knowledge of EFL students and their learning styles at .05 level. In other words, students who had high academic success were found to have a lot of learning styles. On the other hand, students who had low academic success did not have a lot of language learning styles

There was a positive relationship between English background knowledge of EFL students and their learning motivation English at .01 level. In other words, students who had high academic success were found to have a high motivation to learn English. On the other hand, students who had low academic success were found to have a low motivation to learn English.

In addition, there was a positive relationship between learning styles of EFL students and their learning motivation at .01 level. In other words, students who had a lot of learning styles were found to have a high motivation to learn English. On the other hand, students who did not have a lot of language learning styles were found to have a low motivation to learn English.

## 5. Discussion and Conclusions

This study attempted to compare learning styles and learning motivation of Bangkok University students categorized by their background and investigate the relationship among English background knowledge, learning styles and learning motivation. From the overall results of the study, the findings can be used as a guideline for EFL providers. The correlation analysis revealed that students with higher English background knowledge were found to have more motivation to learn English. Also, students with higher English background knowledge were found to have a greater variety of learning styles and more motivation to learn English. However, the statistical analyses revealed that the level of learning styles and learning motivation in general were moderate. Therefore, teachers should encourage their students to stretch their approaches to learning and motivate them to learn in order to achieve enhanced learning outcomes.

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