

# Learning Styles of University Students in Bangkok: The Characteristics and the Relevant Instructional Context

Chaiwat Tantarangsee

**Abstract**—The purposes of this study are 1) to identify learning styles of university students in Bangkok, and 2) to study the frequency of the relevant instructional context of the identified learning styles. Learning Styles employed in this study are those of Honey and Mumford, which include 1) Reflectors, 2) Theorists, 3) Pragmatists, and 4) Activists. The population comprises 1383 students and 5 lecturers. Research tools are 2 questionnaires – one used for identifying students' learning styles, and the other used for identifying the frequency of the relevant instructional context of the identified learning styles.

The research findings reveal that 32.30 percent - are Activists, while 28.10 percent are Theorists, 20.10 are Reflectors, and 19.50 are Pragmatists. In terms of the relevant instructional context of the identified 4 learning styles, it is found that the frequency level of the instructional context is totally in high level. Moreover, 2 lists of the context being conducted most frequently are 'Lead-in activity to review background knowledge,' and 'Information retrieval report.' And these two activities serve the learning styles of theorists and activists. It is, therefore, suggested that more instructional context supporting the activists, the majority of the population, learning best by doing, as well as emotional learning situation should be added.

**Keywords**—Instructional Context, Learning Styles, Learning Style Preference, and Learning Style Questionnaire.

## I. INTRODUCTION

**D**UE to Globalization, English is used as a tool for communication worldwide without borders, and it has become "World English". The needs of learning English for daily communication as well as for future career are increasing, and this leads to the continuous development of teaching methodologies together with teaching aids and effective learning activities with the purposes of efficient learners' English proficiency development. The teaching of English today pays emphasis not only on language systems: phonology, syntax, and forms but also on learning processes including the interaction between teachers and learners as well as learners and learners. The most effective teaching method for English language teaching nowadays is "Communicative Language Teaching" or CLT [9]. CLT emphasizes learning activities in which learners are required to use the target language to communicate with one another in various situations as both senders of the message using such productive skills as speaking or writing and receivers using such receptive skills as listening or reading. These learning activities include communicative activities encouraging and requiring learners to speak with and listen to others with real purposes: to find information, to give advice, to talk about changes and to learn about culture etc

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[2]. Furthermore, research on second language acquisition suggests that more learning takes place when learners are engaged in relevant tasks within a dynamic learning environment rather than in traditional teacher-led classes [11].

Since the teaching of English in Thailand is the teaching of English as a foreign language (TEFL), learners have very few chances to use English in daily life and even in English language classes especially the skills of listening and speaking. Language practice activities; controlled practice, pair work, group work and task-based learning; and self-study language practice outside classrooms are, therefore, necessary for learners' language improvement [17]. It can be concluded that teaching methodology pays a vital role on learners' success [13]. The key teaching steps include 3Ps - 1) presentation process in which teachers present language forms and function, 2) practice process in which learners are encouraged to involve in various kinds of language practice, and 3) production process in which learners are required to use the target language in different contexts both in class and outside class [4]. However, because of the lack of motivation or time consuming, learners do not pay much attention on production process, and this leads to the inefficiency in communication.

The teaching of general education courses at Suan Sunandha Rajabhat University, Bangkok is operated by the Office of General Education and Electronic Learning Innovation responsible for material development and class & course management in cooperation with content teachers who provide contents, design learning & testing activities both in class as well as online sites, and give lectures. A normal class size of 400-500 students is designed to meet the demand of a large number of students registering to study the general education courses each semester. In this research a general education course – English for Communication and Study Skills – will be studied. Unlike other normal courses with a class size of 40-50 students conducted by the lecturers of the faculties, this kind of learning situation in general education courses has caused such problems as the lack of interaction between teachers and learners especially during lectures and the motivation to learn. Moreover, such language practices as pair work, group work and discussion are difficult to conduct in large classes. Although online activities are designed so that learners can practice by themselves anytime and anywhere there is an internet connection, learners are not prepared for these kinds of activities. Since the general education courses are scheduled for 1<sup>st</sup> or 2<sup>nd</sup> year students, who are not familiar with the large class size, most of them cannot finish the online activities on time, and this leads to poor grades or drop out. Furthermore, as most of the students in the

university are from upcountry, they have to stay on their own in dormitories or apartments, and some will have to do part-time jobs to support their educational and other expenses. These factors result in their inability to manage their time to learn or do online activities which require self-direct learning. Based on the report of students' progress in the course – English for Communication and Study Skills – in the academic year of 2/2011, it is found that 495 of 1696 students, or 27.42 percent of them, get I or incomplete grade. Table I shows the reasons why they get I.

TABLE I  
REASONS WHY STUDENTS GET 'I'

Problems	Number of Students	Percent
- Incomplete project and E-learning exercises	274	59.06
- Missing final exam	61	13.15
- Incomplete project, E-learning exercises and missing final exam	130	28.02

Based on table I, the reasons why so many students can not complete the project and e-learning exercises on time are that they are not aware of the deadline. They do not plan ahead to allocate their time to finish the project and e-learning exercise within the suggested time. Since the learning management is done online, those who cannot complete their task on time will be graded as incomplete regardless of personal excuses. Although there are lots of warning from lecturers and the teaching assistants about the deadline of those activities, the students neglect to manage themselves to do their own jobs.

Besides the students' lack of self-discipline and appropriate study skills, the difference of their learning styles is another key factor affecting their learning outcomes. In a large mixed ability class, students show different learning behaviors. Some like sitting in front rows so that they can hear the lecture and watch the teacher's presentation with visual resources clearly while others prefer sitting in the back of the class paying no attention to the lecture. However, when there is brainstorming or opinion giving activity, this group of students will never hesitate to participate. Moreover, some students prefer note taking while others prefer role playing. In any case during the lecture most of them are enthusiastic to read aloud after the teachers or tapes, and to take short notes when there is a pause. All these noticeable different learning preferences are called 'learning styles' [5]. If learning activities are designed to satisfy different learning style preferences, learners will be motivated to learn efficiently.

Another cause of learning problems is that the students have been brought up in the word of Information Communication Technology and by Generation X, who are regarded as the best parents in the world [3]. They have been categorized as Generation Y or Millennial Generation or Net Generation or Texting Generation, who are described as peer-oriented and multitaskers [12]. When they come to class, instead of paying attention to lecture, they will actually involve themselves in using various kinds of ICT

gadgets, and they have extremely short term interest in learning.

In conclusion, learning problems in English language general education course; English for Communication and Study Skills; root from various factors – caused by teachers and students. In terms of teachers, the problems are from the course design; class size, and one-size fit all teaching. Even though some research points out that the appropriate class size for effective language learning is 40-50 students [2], the university believes that with the professional large class management including lots of teaching assistants and partial online activities created by experts in multimedia, learners will be able to learn systematically both in class and online learning. Moreover, since this course focuses on study skills, lots of study skills such as how to allocate time to learn and how to deal with online learning are emphasized. While in terms of learners, it is because of their inability to adapt themselves to learn in a changing learning environment, their different learning style preferences, and the results of being brought up in 21<sup>st</sup> century. To solve these problems, it is necessary to encourage students to learn how to learn so that they can adapt themselves to new learning environment [21]. Moreover, for teachers it is important to know more not only how to teach and organize learning activities promoting learning both face to face and online learning, but also to know more about their students' learning behaviors so that they can design instructional materials and activities that suit their students' learning styles.

The research questions are, therefore, as follows:

1) What are the students' learning styles? Which learning style dominates the class? What are the characteristics of each learning style preference?

2) What are the frequency levels of the relevant instructional context in the General Education course? What are lists of relevant instructional context for each learning style?

## II. THEORETICAL BACKGROUND

### A. Study Skills and Learning Styles

There are many factors leading to learner's language proficiency such as contents, learning materials, teaching methodologies, language practice activities, learning resources, motivation, and evaluation methods [2]. All these are external factors of learners. Even though these factors are created purposefully, if learners are not ready to learn or do not know how to learn, these factors can no longer be beneficial to them. Learning is "the act or experience of one that learns; knowledge of skill acquired by instruction or study; modification of a behavioral tendency by experience" [1]. Basically, learning involves helping learners along the learning process, and learning includes all of the things we do to make it happen [15]. Based on the definition of learning, learning is the result of instruction, and it includes practice and repetition until learner acquires knowledge or skill and is able to transfer it to other situations. It is, therefore, believed that teaching content or giving a lecture about a subject matter to students for a time results in only 5

% recognition of what being lectured [7]. That is because listening to a lecture is passive learning. However, participatory learning including practicing by saying and speaking together with teaching others lead to 75 and 90 % recognition of what is being practiced and taught respectively. These ways of learning are called “Study Skills,” which can be instructed and implemented.

Study Skills include the following ways of study [18]:

- Developing time management
- Setting goals or creating self-directed learning
- Taking notes
- Learning how to learn
- Asking for help from tutors and peers
- Being aware of responsibility and discipline etc.

Study skills are systematical methods of study with clear steps and instruction, and can be trained. Learners can adopt appropriate study skills both in class and outside class, and if these skills are employed regularly, learners will improve their study, and later on will be well-trained personnel.

Unlike study skills, learning styles are personal learning behavior which reflects individual learning preferences. Students in a class possess different learning preferences. For example, during lecture some students like highlighting words or sentences in their learning material, while some like sitting in front and trying to understand the lecture. However, some pay no attention to the lecture but when there is a group work, they jump into the activity. Learning styles are, therefore, the preferred way(s) in which individuals interact with, take in, and process new stimuli or information [5]. Learning styles are noticeable learning behavior.

### B. Types of Learning Styles

Understanding learning styles of students is an important component of effective instruction because students learn best when taught in accordance with their learning styles. [6] Some students enjoy a lecture-based class while others prefer hands-on, interactive instruction. Moreover, it is important to recognize that a student’s preferred learning styles can be expanded over the time to accept different types of instructional techniques. That’s why the study of students’ learning styles began in 1984 by David Kolb, and later by Peter Honey & Alan Mumford and Neil Fleming [15]. Because of the clear learning cycle of Honey & Mumford, which is in line with communicative teaching approach, its clear types of learning styles, and its easy to use questionnaire, ideas of Honey & Mumford learning styles are applied in this study.

### C. Honey & Mumford’s Learning Styles

Honey & Mumford are best known for their learning cycle based on the work of Kolb. Honey & Mumford adapted the stages in the learning cycle to be in line with managerial experiences of decision making and problem solving [8]. The Honey & Mumford learning cycle is divided into 4 stages with 4 learning styles like those in Kolb’s learning theory, but the terms used by Honey & Mumford were renamed so that they are easy to understand

as shown in Fig 1: Honey and Mumford’s learning cycle [14].

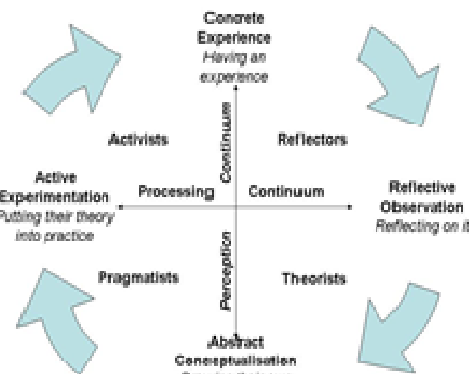


Fig. 1 Honey & Mumford learning cycle

Based on the fig. 1, the north-south axis is called perception continuum or emotional perception and the east-west axis is called processing continuum or how we approach task. The arrow pointing to the north refers to the belief that learners have some experiences or background knowledge. The arrow pointing to the east shows that when learning occurs, learners will observe and reflect on their past experiences. The arrow pointing to the south shows that after the observation learners will draw their own conclusion in the form of abstract experience, rule or theory. The arrow pointing to the west shows that in this stage learners will put their theory into practice in the form of active experimentation. The result of the experiment results in new concrete experience or knowledge gained as shown in arrow pointing to the north. Learners will take the whole 4 stages to learn as many times as possible while some may skip or jump to the next step depending on learning preferences or learning experiences. Due to individual learning preferences, Honey & Mumford categorize learners into 4 learning styles like those of Kolb but define each type of learners directly based on the stages in the learning cycles and use more understandable terms as follows [14];

1) Reflectors shown on top right quarter are persons learning from concrete experiences and by standing back and observing. They think before making decision.

2) Theorists shown on bottom right quarter are persons learning by observing and making conclusion or making abstract conceptualization. They are good at making conclusion, and working systematically.

3) Pragmatists shown on bottom left quarter are persons learning from abstract conceptualization and learning by putting ideas, or theories into practice. They prefer active experimentation and planning.

4) Activists shown on top left quarter are persons learning well by doing and prefer immersing themselves fully in new experiences. They act first and consider consequences later.

Many educators and researchers have applied ideas and theory of Honey and Mumford to find out learning styles of students and personnel in business administration with the

purposes of raising learners' awareness of their strength and weakness in learning. [8] Moreover, they need to design instructional activities which could meet with learning styles preferences.

Here are some preferences and weakness of learning styles. Table II

Preferences and weaknesses of learning styles [16].

TABLE II  
PREFERENCES AND WEAKNESSES OF LEARNING STYLES

Learning Style	Preferences	Weaknesses
Activists	Learning by doing	Risk engaging in one activity after another, without reflecting or drawing any conclusion
Reflectors	Sit back, observe and reflect	May not reach any conclusions, or put their learning into action
Theorists	Have anything organized into a neat schema as soon as possible	Their conclusion may not be soundly based because of inadequate review
Pragmatists	Jump into any expedient course of action	Not taking the time to analyze the best course of action

Based on table II, each type of learning styles reflects preferred learning behavior and some weakness. Knowing one's learning style can accelerate learning as he/she undertakes activities that best fit his/her preferred style. Moreover, he/she can avoid repeating mistakes by undertaking activities that strengthen other styles [18]. Here are some suggestions about relevant English language teaching and learning context of each learning style as shown below. Table III illustrates Learning Styles, Learning Styles Preferences and Instructional Context [14], [15].

TABLE III  
LEARNING STYLE PREFERENCES  
AND RELEVANT INSTRUCTIONAL CONTEXT

Learning Style	Preferences	Relevant Instructional Context
Activists	<ul style="list-style-type: none"> <li>- Learning by doing</li> <li>- Ready to learn from new experiences</li> <li>- Working with others</li> <li>- Activity allowing them to create ideas freely</li> </ul>	<ul style="list-style-type: none"> <li>- Lead in activity to review background knowledge or to call attention</li> <li>- Brainstorming</li> <li>- Small group discussion</li> <li>- Case study and homework</li> <li>- Role-play and simulation</li> <li>- Competition and puzzles</li> <li>- Problem solving</li> </ul>
Reflectors	<ul style="list-style-type: none"> <li>- Learning by observing, thinking, and taking time to review</li> <li>- Standing back and viewing experiences from others</li> <li>- Collecting data</li> </ul>	<ul style="list-style-type: none"> <li>- Lectures about principles or methods with pictures, chart, and video</li> <li>- Word and sentence analysis</li> <li>- Note taking</li> <li>- Brainstorming</li> </ul>
Theorists	<ul style="list-style-type: none"> <li>- Learning by reading, and listening to lectures or tapes</li> </ul>	<ul style="list-style-type: none"> <li>- Inductive teaching</li> <li>- Reading using different reading strategies</li> </ul>

- Learning from models, concepts, and facts
- Preferring to analyze and draw new information into logical theory
- Case studies
- Project-based learning

Pragmatists	<ul style="list-style-type: none"> <li>- Learning from applying principles or ideas into practice</li> <li>- Putting the learning into practice in the real world</li> <li>- Trying out new ideas and techniques to see if they work</li> </ul>	<ul style="list-style-type: none"> <li>- Deductive teaching</li> <li>- Role-playing</li> <li>- Memorizing</li> <li>- Active experiment</li> <li>- Searching information, writing a report, and making an oral presentation</li> </ul>
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Based on the relevance instructional context in table III, which support each learning preference, it is found that knowing learners' learning styles can result in appropriate methods not only for learners to learn effectively but also for teachers to provide efficient teaching and learning activities suit the different individuals in the class.

*D. Honey & Mumford's Learning Style Questionnaire*

The Learning Style Questionnaire (LSQ) developed by Honey & Mumford is one of several measures of individual learning style. This self-administered questionnaire determines respondent preferred learning style. The questionnaire was first designed for managers to complete a checklist of work-related behaviors without directly asking the managers how they learn. Having completed the self-assessment, the managers were encouraged to focus on strengthening underutilized styles in order to become better equipped to learn from a wide range of everyday experiences [19]. The questionnaire has been used to measure learning styles of both students in various educational institutions and personnel in business institutions. It has also been reviewed and adapted by Honey & Mumford recently. In this research, the adapted questionnaire is used as research tool to identify learning styles of university students in Bangkok. The questionnaire comprises 18-item checklists of learning behavior, working behavior and way of living.

The first 9 items are about tendency of behavior connecting with 'doing' or 'watching'. Each item includes a checklist pair that the respondent will have to decide to choose one or the other which is his/her preference. For example,

1. Doing I usually take action immediately without much consideration.

Watching I am careful and strict to principles.

2. Doing I speak out as I thought.

Watching I think before speak.

The second 9 items are about tendency of behavior connecting with 'thinking' or 'feeling'. For example,

1. Thinking I am a person who is hard to understand.

Feeling I am a person who is easy to understand.

2. Thinking I make decision from facts.

Feeling I make decision from feelings.

After the respondent completes the 18 items on the adapted questionnaire, which is online self-administered, the computer program will automatically add up the scores using the criterion below, and later in a few moments the respondent will be informed of his/her learning style.

- 1) If more than half of the scores is 'watching' and 'feeling', the respondent will be a reflector.
- 2) If more than half of the scores is 'watching' and 'thinking', the respondent will be a theorist.
- 3) If more than half of the scores is 'doing' and 'thinking', the respondent will be a pragmatist.
- 4) If more than half of the scores is 'doing' and 'feeling', the respondent will be an activist.

Once the respondent knows what learning style he/she is, the questionnaire provides him/her the lists of characteristic with strength and weakness of learning, and suggestions about how to learn best. Moreover, it is hoped that the respondent can strengthen underutilized learning behavior in order to become better equipped to learn from a wide range of learning experience.

### III. RESEARCH DESIGN

To answer the research purposes, it is necessary to set up outlines of how to conduct the study about learning styles of university students in Bangkok. Here are outlines of how to conduct the research classified by research aims.

To find out learning styles of the students, these steps are conducted.

- 1) Create a questionnaire to measure the population's learning styles based on Honey & Mumford's questionnaire with suggestions of teaching and learning activities supporting each type of learning styles.
- 2) Assess the content validity of the questionnaire concerning each type of learning styles and its relevance teaching and learning activities by experts.
- 3) Review the questionnaire and install it online.
- 4) Let the population complete the questionnaire online, and the computer program will automatically add up the respondent scores and inform him/her of his/her learning style.

To study the relevant instructional context in the course - English for Communication and Study Skills

- 1) Create a questionnaire to find out the level of frequency of teaching and learning activities employed by lectures in the course: English for Communication and Study Skills.

- 2) Let all 5 lecturers complete the questionnaire.

#### A. Population

There are 2 groups of population

- 1383 students registering to study the course – English for Communication and Study Skills in the academic year 2011.
- 5 lecturers responsible for teaching the course – English for Communication and Study Skills in the academic year 2011.

#### B. Data Collection Procedure

To find out the population's learning styles, the population is asked to complete the online learning style questionnaire from The Course Websites, and the computer program will analyze the reply of the respondents in percent.

To find out the frequency of the relevant instructional context of the learning styles, 5 lecturers responsible for the course: English for Communication and Study Skills: are asked to complete the 5-scale questionnaire about the frequency of the instructional context conducted in the course. The reply of the respondents is analyzed by Mean and S.D.

### IV. RESULTS

The results of the study can be divided into 2 parts – the students' learning styles, and the relevant instructional context. The results are shown by groups of the population, namely gender, faculties and the overall.

#### A. Students' Learning Styles Classified by Gender

Table IV shows students' learning styles classified by gender.

TABLE IV  
STUDENTS' LEARNING STYLES CLASSIFIED BY GENDER

Learning Style	Male	Female
	N/Percent	N/Percent
Reflectors	104/25.2	174/17.9
Theorists	104/25.2	284/29.2
Pragmatists	76/ 18.4	194/20.0
Activists	128/31.1	319/32.9

Based on table IV, it is found that the learning preferences of male students are activists, reflectors and theorists (equal number), and pragmatists, those of female are activists, theorists, reflectors, and reflectors respectively. It can be concluded that there's a small difference of learning styles between male and female university students in Bangkok. That's although most male and female students' learning preferences are activists, pragmatists are the least preferences of male, and reflectors are the least preferences of female.

#### B. Students' Learning Styles Classified by the Faculties

In this research the population is from 5 faculties and 1 college as shown in table V below.

TABLE V  
POPULATION CLASSIFIED BY FACULTY

No	Faculty	Number of Students
1	Science and Technology (SCI)	539
2	Management Science (MAN)	530
3	College of Innovation (INN)	290
4	Humanities and Social Sciences (HUM)	10
5	Industrial Technology (IND)	7
6	Fine and Applied Arts (FIN)	7
	TOTAL	1383

Table VI shows students' learning styles classified by faculties or college.

TABLE VI  
STUDENTS' LEARNING STYLES CLASSIFIED BY FACULTY OR COLLEGE

No	Faculty or College		
	SCI	MAN	INN
1	Activists 29.9	Activists 31.9	Activists 39.0
2	Theorists 27.5	Theorists 30.2	Theorists 24.1
3	Pragmatists 22.8	Reflectors 20.0	Reflectors 19.7
4	Reflectors 19.9	Pragmatists 17.9	Pragmatists 17.2

No	Faculty or College		
	HUM	IND	FIN
1	Activists 40.0	Theorists 57.1	Theorists 57.1
2	Reflectors 30.0	Reflectors 42.9	Reflectors 28.6
3	Theorists 20.0	----	Pragmatists 14.3
4	Pragmatists 10.0	----	----

From table VI, it is found that the learning preferences of students in faculty of Science and Technology are activists, theorists, and pragmatists, and reflectors respectively. Those of faculty of Management Science and of College of Innovation are activists, theorists, reflectors and pragmatists respectively. Those of faculty of Humanities and Social Sciences are activists, reflectors, theorists, and pragmatists respectively. Those of Industrial Technologies are theorists, and reflectors. Those of Fine and Applied Arts are theorists, reflectors and pragmatists respectively. It can be concluded that the learning style preferred by most of the students in 3 faculties and one college is activist, while the least learning preference of 2 faculties and one college is pragmatist.

### C. The Overall Students' Learning Styles

Table VII shows the overall students' learning styles.

TABLE VII  
THE OVERALL STUDENTS' LEARNING STYLES

No.	Learning Styles	Number of Students	Percent
1	Activists	447	32.3
2	Theorists	388	28.1
3	Reflectors	278	20.1
4	Pragmatists	270	19.5

Based on table VII, it can be concluded that learning styles of university students in Bangkok are activists, theorists, reflectors, and pragmatists respectively. Note that learning behavior classified as 'activists' is the most preferred learning style, while that of the 'pragmatists' is the least.

### D. The Relevant Instructional Context

The analysis results of the questionnaire asking 5 lecturers about the frequency of the instructional context happens in the course; English for Communication and Study Skills reveal the relevant instructional context of the 4 learning styles. Lists of the context with highest and high

level of frequency are shown in table VIII the relevant instructional context of learning styles, which will be divided into 4 types; reflectors, theorists, pragmatists, and activist.

TABLE VIII  
THE RELEVANCE INSTRUCTIONAL CONTEXT

Mean	S.D.	Instructional Context
4.40	0.55	For Reflectors
4.40	0.55	Lectures about principles and strategies
3.80	1.10	Power Point presentation with pictures and diagram
4.80	0.45	Exercises about the meaning and formation of words
4.20	0.84	For Theorists
4.20	1.30	Reading by using reading strategies
3.60	0.55	For Pragmatists
4.80	0.45	Practice in laboratory or computer room
4.00	1.00	Searching information from websites, write a report and make a presentation as directed
3.80	0.84	Deductive teaching
3.60	0.55	For Activists
4.80	0.45	Doing homework or exercises
4.00	1.00	Searching information from websites, write a report and make a presentation as interested
3.80	0.84	Conducting group activities
3.60	0.55	Lead in activities to review background knowledge

Based on table VIII, it can be concluded that 2 lists of instructional context conducted most frequently in the course; English for Communication and Study Skills; are 'Reading by using reading strategies' and 'Doing homework or exercises', and they serve the learning styles of theorists and activists, the 2 major groups of the population's learning styles, respectively. Moreover, when considering the relevant instructional context as a whole, it is found that the frequency level of the context is totally in high level.

## V. FINDINGS AND LIMITATION

Since it is found that most of the students' learning preferences are activists, whose characteristics are learning by doing, enjoying working with others, being ready to learn from new experiences including doing activities freely, and preferring emotional learning to long lecture, it is, therefore, suggested that lead in activities, [20] and such practice as drilling and reading aloud together with other participatory learning activities like group work, and game should be added in instructional context [16].

Moreover, based on the findings that the second largest group of students' preferences is Theorists, whose characteristics are learning best by reading, attending lectures, and making conclusion in the form of rules or steps, the relevant instructional context is inductive teaching with lectures giving examples and requiring learners to conclude the ideas in the form of rules or steps. Furthermore, as this group of students is good at reasoning, making analogy and case study, the relevant instructional

context should include reading practice using variety of reading strategies, project-based learning, and case study.

Based on the findings that the third largest group of students' learning preferences is reflectors, whose characteristics are learning best by thinking, reviewing, and note-taking. The relevant instructional context should include lectures giving explanation about principles and strategies with power point showing pictures, graphs, charts and videos. In addition, learning activities enabling learners to be able to employ analytical skills, such as analyzing word meaning, word formation and sentence structure will serve their learning preferences.

For the least group of students' learning preferences, the pragmatists, who prefer applying the knowledge and principles into practice in the form of active experimentation, the relevant instructional context includes deductive teaching, role-playing with feedback, practicing in laboratory, and peer teaching.

Furthermore, based on the findings revealing that the overall students' learning styles are activists, theorists, reflectors, and pragmatists respectively, it can be concluded that most of the university students in Bangkok are activists. These findings reflect that since university students in Thailand have learned English for more than 12 years from primary schools to secondary schools, they actually possess some background knowledge about English language. This is important because when they learn English, their teachers should start teaching by reviewing learners' background knowledge so that learners can make use of their past experiences to learn new things better. After that learners can draw conclusions and practice, then they can learn new experience as suggested in Honey & Mumford's learning cycle [14]. However, as learning preferences of activists are that they prefer jumping into activity without reflecting or drawing any conclusion [17]. In this case, teachers should employ 3 steps of teaching or 3Ps – Presentation, Practice, and Production – as suggested in Communicative Language Teaching [4]. In presentation step, teachers can review learners' background knowledge before presenting new concept or new target language. Then before practicing, teachers should ask learners to help make conclusion of the presented concept or target language. This can slow down 'activists' to think before starting an activity. Finally, in production step, 'activists' can use the new concept or the target language in completing a task, and this results in gaining or learning new experience.

Finally, the findings that most university students in Bangkok are 'activists' – characterized as ready to learn new experience, enjoy working with others, and have fun doing something independently – reflect the characteristics of 'Thai people' as a research has pointed out that one of the unique Thai people's characteristics is 'fun-pleasure orientation'. Since Thailand has been known as the "Land of thousand smiles", a stereotyped image that comes along with the much-talked-about myth of the Thai being easy-going, enjoying the everyday routine pleasures of life with a happy carelessness, not letting troubles touch them easily, viewing

life as something to be enjoyed not endured, and would not do anything that is not *Sanuk* (to have fun, to enjoy oneself and to have good time) [10]. These characteristics can, certainly, be seen in Thai classrooms.

The limitation of this study is about sampling of the population. That is because this course – English for Communication and Study Skill – is a general education course, which is for students from all faculties. Some faculties assigned their 2<sup>nd</sup> year students to register to study this course, while very few 4<sup>th</sup> year students who do not pass this course will have to register to study so that they can complete their study within 4 years' time. That's why the number of students in some faculties will be not more than 10, while some will be more than 200-300.

Another limitation is about the instructional context. Since this course is a general education course, it is managed by the Office of General Education and Electronic Learning Innovation, and is designed to have a class-size of 400-500, the teaching time includes only 2-hour lecture per week, and 8 weeks per semester. Moreover, partial online activities are included. This leads to the limitation of instructional context caused by large class size and limitation of lecture time. In addition, as this course aims at developing learners' skills of reading and writing, the instructional context focuses on mainly reading and writing skills. The skills of listening and speaking are less emphasized.

## VI. CONCLUSION

The study of learning styles can be beneficial to both students and teachers or educators. For students at Suan Sunandha Rajabhat University, Bangkok, if they take online self-administered questionnaire adapted from Honey & Mumford's questionnaire to identify their learning styles from websites of the course; English for Communication and Study Skills, in a few moments after completing the 2-alternative 18 items, the computer program will add up the scores and let them know what types of learning styles they are. Moreover, the respondents can read more information about the characteristics of each type of learning styles in terms of specific learning strengths and weaknesses of their learning preferences. Furthermore, it is hoped that if they utilize the appropriate learning behavior or ways of learning as suggested in the online questionnaire in the right teaching and learning context, they will learn better and more efficiently. In addition, if they employ various kinds of learning styles regularly, they will be well trained to work systematically in their future career.

For teachers and educators, knowing the learning styles of their students results in the awareness that learners do seem to learn more effectively in different ways. Rote learning and 'one size fit all teaching' are to be reconsidered while designing a course or an instructional context to meet the needs of the different individuals is more demanding. That is to say the study of learning styles can raise the teachers' awareness that people will learn to different degrees, and the need to consider the most effective way of using the

resources to gain the maximum benefit for most of the learners should be emphasized. In addition, it's the teachers' job not only to provide appropriate methods of learning for the different individuals in an education institution or an organization, but also to encourage learners to learn how to learn and employ appropriate learning methods in learning or working environment.

For further research, it is suggested that to design English for Specific courses or other short training courses, it is necessary for teachers and educators to study learning styles of the learners in different faculties or different organization so that the courses will meet various learning preferences. Moreover, research evaluating the relationship between the relevance teaching as well as learning methods and learning improvement should be conducted.

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