

A Study on Learning Styles and English Learning Achievements of Non-English Major University Students

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Abstract: This thesis attempts to explore the relationships between learning styles and English learning achievements of non-English major university students to provide some empirical evidence for English teaching and learning. To achieve the purpose, it aims to provide answers to the following questions: (1) What are the learning style distributions of non-English major university students? (2) How do their learning styles affect their learning strategies deployment? To answer the above questions, the author conducted an empirical study, in which 147 sophomores from a university in Guangzhou got involved, and two self-reported questionnaires were adopted: The Chinese version of the Myers-Briggs Type Indicator, Form M (MBTI-M), to measure the learning styles of the participants. The major findings of this study are: The learners show their diversity of learning styles. They are Intuitive (53.85%), Feeling (54.55%) and Judging (56.64%). And type distributions on the Extroversion-Introversion scale are almost even (Extroversion: 50.35% and introversion: 49.65%). The research findings have an implications for English teaching and learning. English learners should be encouraged to develop their awareness of their own styles so that they can understand their learning strengths and weaknesses better.

1. Introduction

1.1 Research Orientation

Since the emergence of “student center” concept, studies on English language teaching and learning put more and more attention on learners’ leading role and individual differences. Research focuses have shifted from teachers’ “how to teach” to students’ “how to learn” (Cohen, 1990), from teachers’ teaching method to students’ motivation and potential. Teachers need to understand students’ individual differences, such as intellectuality, age, gender, motivation, self-esteem, personality, and learning style. Among these elements, learning style becomes an important concern for educators and researchers.

1.2 Rationale

Since the studies on learning styles emerged in 1970s, they soon became one of the focuses of pedagogical research. Some researchers think that it’s practical and realistic to understand different learning styles as it’s good for improving teaching (Keefe, 1979). Some researches (Douglass, 1979; Dunn, Dunn & Price, 1975) shows when teachers understand students’ different learning styles then accordingly adopt suitable teaching methods and design classroom activities, students learning results improve.

1.3 Research Questions

As mentioned in section 1.1, the present study aims to explore the relationships between learning styles and learning achievements. If empirical evidence can be found in this field, it may give great inspiration to English language teaching and learning.

English language course is a required foundation course and a part of regular courses for bachelor degree in the universities in China. Students are required to study the course in their freshmen and sophomore years by the regulations from Ministry of Education of the People’s Republic of China. The students can be divided into English major and non-English major. Since

the latter predominate in amount, studying them should show a more representative picture. To achieve these purposes, this thesis aims to provide answers to the following questions:

- (1) What are the learning style distributions of non-English major university students?
- (2) How do their learning styles affect their English learning achievements?

1.4 Organization of the Thesis

The whole thesis is organized in the following way:

Chapter One briefly introduces the purpose, significance, questions and organization of the current study.

Chapter Two presents a review on related literature. It includes one part. This part introduces the emergence, definitions, categorizations and measurements of learning styles.

Chapter Three reports the present study methodology, which describes the subjects, instruments, procedures and analytical methods.

Chapter Four gives a detailed picture on the empirical study that shows: learners' diversity of learning styles.

Chapter Five is the conclusion of the present study. It summarizes the major findings and points out some limitations and implications.

2. Literature Review

2.1 Introduction

Section 2.2 gives the definitions and measurement tool of learning styles.

2.2 Learning Styles

Learning styles play important role in second language acquisition, which is a mirror to reflect how minds work during the acquisition. Understanding learning styles of the students helps teachers guide learners and develop suitable teaching methods for individuals. On the other hand, effective deployment of learning strategies facilitates language acquisition (Oxford, 1990; Green & Oxford 1995; Wen, 1996) and helps develop learners' autonomy (Wenden, 1991). Some research also shows learners' attitude and learning achievements improve after teachers understand and respect students' learning styles, then apply corresponding methods and classroom activities for them (Douglass, 1979; Hunter, 1979; Dunn, Dunn & Price, 1986).

2.2.1 The Definitions of Learning Styles

Studies on learning styles can be divided into three periods. The early studies begin in 1950s and last till 1960s. Researchers Thelen (1954) and Witkin (1962) respectively raised the concept "learning styles" in the field of general psychology.

The second period of studies from 1970s to 1980s sees the emergence of over thirty theories. Among them are outstanding theories from Rita and Kenneth Dunn couple (1979), David Kolb (1984) and Joy Reid (1987). They identified different learning styles elements and categorized them into groups according to different standards. For example, Dunns' studies put learning styles into five categories: environmental, emotional, sociological, physiological and psychological; David Kolb fractionized learning process into four sections: concrete experience, reflective observation, abstract conceptualization and active experimentation; Joy Reid grouped learning styles according to perceptual preferences: visual, auditory, kinesthetic, tactile, social group and social individual.

The third period of studies on learning styles begins from 1990s and lasts until now. Researches mainly focus on two fields. On the one hand, studies deepen into the learning outcomes by effects of matching teaching styles and learning styles (Carrell & Monroe, 1993; Dunn & Griggs, 1990), on the other hand, researchers concentrate on how to apply learning styles theories into practical teaching and learning (Peng & Ma, 2006).

Among the plentiful studies, different definitions of learning styles emerged. There is no one definition that all researchers agree on. However, the following definitions are generally accepted in the academic community and are most cited.

Keefe (1979) defined learning styles as the “composite of characteristic cognitive, affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment”.

The Dunn and Dunn (1986) stated that learning styles are students’ abilities to focus their attention and learn the new knowledge or difficult skills.

Reid (1987) defined learning styles according to perceptual preferences which are “internally based characteristics of individuals for the intake or understanding of new information”, not influenced by the contents of information or teaching methods.

Though the above definitions reflect different focus from various researchers, they emphasize the same point: Learning styles show unconscious individual learners’ traits which are stable and persistent.

2.2.2 The Measurement Tool of Learning Styles: MbtI

The MBTI stands for Myers-Briggs Type Indicator. It is a personality profiler based on the work of the Swiss psychologist Carl G. Jung and developed by a mother-and-daughter psychologist team Isabel Myers and Katheryn Briggs. It’s a forced self-report assessment to measure and describe people’s behavioral and personality preferences when obtaining information, making decisions and adopting to various life circumstances.

The MBTI is a valid and reliable instrument for personality assessment (Gardner, 1990). Over two million people take the MBTI yearly. It is accepted in global scale and is translated into approximately 20 languages since it was introduced in 1940s (Naomi, 2000). It is widely used for personal development and in business settings to foster improved teaching methods, leadership and organization development, communication skills, etc.

The MBTI measures individual preferences on these four scales:

- 1) How people are energized: whether people are more energized by the external or internal world (Extroversion or Introversion).
- 2) How people prefer to take in or perceive information (Sensing or Intuitive).
- 3) How people prefer to make evaluations and decisions (Thinking or Feeling).
- 4) How people orient their lives; whether they are organized and seek closure or are spontaneous and open (Judging or Perceiving).

The following Table 1, cited from Moody (1998), is a description of the main features of each scale of the MBTI.

Table 1 MbtI Scale Description.

<u>Extroversion</u>	<u>Introversion</u>
Oriented to the outer world	Oriented to the inner world
Focusing on people, things and actions	Focusing on ideas, concepts, inner impressions
Using trial and error with confidence	Considering deeply before acting
Scanning the environment for stimulation	Probing inwardly for stimulation
<u>Sensing</u>	<u>Intuitive</u>
Perceiving with the five senses	Perceiving with memory and associations
Attending to practical and factual details	Seeing patterns and meanings
In touch with the physical realities	Seeing possibilities
Attending to the present moment	Projecting possibilities for the future
Confining attention to what is said and done	Imagining; “reading between the lines”
Seeing “little things” in everyday life	Looking for the big picture
Attending to step-by-step experience	Having hunches; “ideas out of nowhere”
Letting “the eyes tell the mind”	Letting “the mind tell the eyes”
<u>Thinking</u>	<u>Feeling</u>
Using logical analysis	Applying personal priorities
Using objective and impersonal criteria	Weighing human values and motives, my own and others
Drawing cause and effect relationship	Appreciating
Being firm-minded	Prizing harmony
Being skeptical	Trusting
<u>Judging</u>	<u>Perceiving</u>
Using thinking or feeling judgment outwardly	Using sensing or intuitive perception outwardly
Deciding and planning	Taking in information
Organizing and scheduling	Adapting and changing
Controlling and regulating	Curious and interested
Goal oriented	Open-minded
Wanting closure, even when data are incomplete	Resisting closure to obtain more data

What distinguishes the MBTI from other personality assessment tools is its explanation on “preferences”. Like “hand preferences” – Even though people have the potential to use both hands at once, most of them prefer to use one over the other and “it” takes the lead in many of the activities. Although all people are born with the eight preferences, a preference on each scale tends to be more developed. The preference does not tell good or bad, or right or wrong. It just implies that if one person can identify his preference and uses it as strength to do things, he shall get more effective results.

For each person, he can be typed by four preferences from each pairs of traits. A person who prefers Extroversion, Sensing, Thinking, and Judging is referred to as ESTJ. There are sixteen possible combinations.

Table 2 Personality Types in the MbtI

<u>ISTJ</u> Introversion Sensing Thinking Judging	<u>ISFJ</u> Introversion Sensing Feeling Judging	<u>INFJ</u> Introversion Intuitive Feeling Judging	<u>INTJ</u> Introversion Intuitive Thinking Judging
<u>ISTP</u> Introversion Sensing Thinking Perceiving	<u>ISFP</u> Introversion Sensing Feeling Perceiving	<u>INFP</u> Introversion Intuitive Feeling Perceiving	<u>INTP</u> Introversion Intuitive Thinking Perceiving
<u>ESTP</u> Extraversion Sensing Thinking Perceiving	<u>ESFP</u> Extraversion Sensing Feeling Perceiving	<u>ENFP</u> Extraversion Intuitive Feeling Perceiving	<u>ENTP</u> Extraversion Intuitive Thinking Perceiving
<u>ESTJ</u> Extraversion Sensing Thinking Judging	<u>ESFJ</u> Extraversion Sensing Feeling Judging	<u>ENFJ</u> Extraversion Intuitive Feeling Judging	<u>ENTJ</u> Extraversion Intuitive Thinking Judging

2.3 Summary

The following Chapter Three is going to report the study methodology, which describes the subjects, instruments, procedures and analytical methods.

3. The Empirical Study

3.1 Introduction

This chapter shows the design of the current empirical study. Section 3.2 introduces the subjects; section 3.3 describes three instruments for measuring learning styles.

3.2 Subjects

Chinese students who learn English language can be divided into English major and non-English major. Since the latter predominate in amount, studying them should show a more representative picture on the college English learners in Chinese setting.

The current subjects consisted of 147 sophomores from a university in Guangzhou. Among them, 89 were majoring in Finance (60.5%) and 58 were Liberal Arts majors (39.5%). Their ages ranged from 18 to 21. There were 76 male students (51.7%) and 71 female students (48.3%).

With nearly two-year experience in university and previous learning in primary and middle schools, the students had established certain English learning foundations. According to the record of the above mentioned university, approximately 80% of its non-English major students were able to pass College English Test, Band-4 (CET-4) at the end of their first academic year, which means most of the students have reached the English proficiency of non-English major undergraduate students (according to standards by National CET Commission).

3.3 Instruments

The instruments used in this study consist of two self-reported questionnaires and a national College English Test, Band 4 (CET-4). The first questionnaire is the Chinese version of the Myers-Briggs Type Indicator, Form M (MBTI-M, see Appendix 1), was to measure the learning styles of the participants.

3.3.1 Myers-Briggs Type Indicator, Form m (Mbti-m)

The current study used Cai's (2001) revised MBTI-M questionnaire in Chinese. MBTI-M aims to measure subjects' basic preference, i.e. behavior or mental patterns (Myers & McCaulley, 1985). The theory of MBTI assumes each individual naturally prefers one pole in the same dimension. Even if his/her behaviors simultaneously show characteristics of two poles, one pole always takes the lead. The four dimensions are also viewed as four basic learning styles. The two preferences at each dimension are independent from other dimensions and preferences. The results measured by MBTI have 16 possible combinations. As aforesaid, MBTI scores on eight preferences in four dimensions. High score on a particular preference indicates his/her learning style in this dimension. Hence one person's style is ESFJ if he obtains high scores in Extraversion, Sensing, Feeling and Judging.

3.4 Summary

This Chapter describes the study methodology. With the questionnaire MBTI-M, the current study employs statistical methods to measure 147 non-English major university undergraduates' learning styles.

4. Results for Research Questions

4.1 Introduction

This chapter mainly reports the results of data analysis in accordance with the research questions:

- (1) What are the learning style distributions of non-English major university students?
- (2) How do their learning styles affect their English learning achievements?

Section 4.2 answers the first question; section 4.3 answers the second one.

4.2 Learning Style Results: MbtI Distribution

The MBTI-M test shows the distribution of the subjects learning styles: They are Intuitive (53.85%), Feeling (54.55%) and Judging (56.64%). Type distributions on the extroversion-introversion scale are almost even (Extroversion: 50.35% and Introversion: 49.65%). Table 3 demonstrates the subjects' learning styles in terms of the split by each of the four MBTI scales as well as the classification by MBTI type.

Table 3 Sample Split by Each of the Four MbtI Scales and Classification by MbtI Type (n=143)

MBTI types				Preferences	n	%
ISTJ(4.20%) n=6	ISFJ(11.19%) n=16	INFJ(6.99%) n=10	INTJ(6.29%) n=9	E	72	50.35
				I	71	49.65
ISTP(2.10%) n=3	ISFP(4.20%) n=6	INFP(7.69%) n=11	INTP(6.99%) n=10	S	66	46.15
				N	77	53.85
ESTP(5.59%) n=8	ESFP(4.90%) n=7	ENFP(5.59%) n=8	ENTP(6.29%) n=9	T	65	45.45
				F	78	54.55
ESTJ(7.69%) n=11	ESFJ(6.29%) n=9	ENFJ(7.69%) n=11	ENTJ(6.29%) n=9	J	81	56.64
				P	62	43.36

Note: E=Extroversion; I=Introversion; S=Sensing; N=Intuitive; T=Thinking; F=Feeling; J=Judging; P= Perceiving. i.e. an ISTJ= an Introversion Sensing Thinking Judging person.

For each preference, or each pole of the four MBTI scales, Figure 1 provides a more comparable perspective.

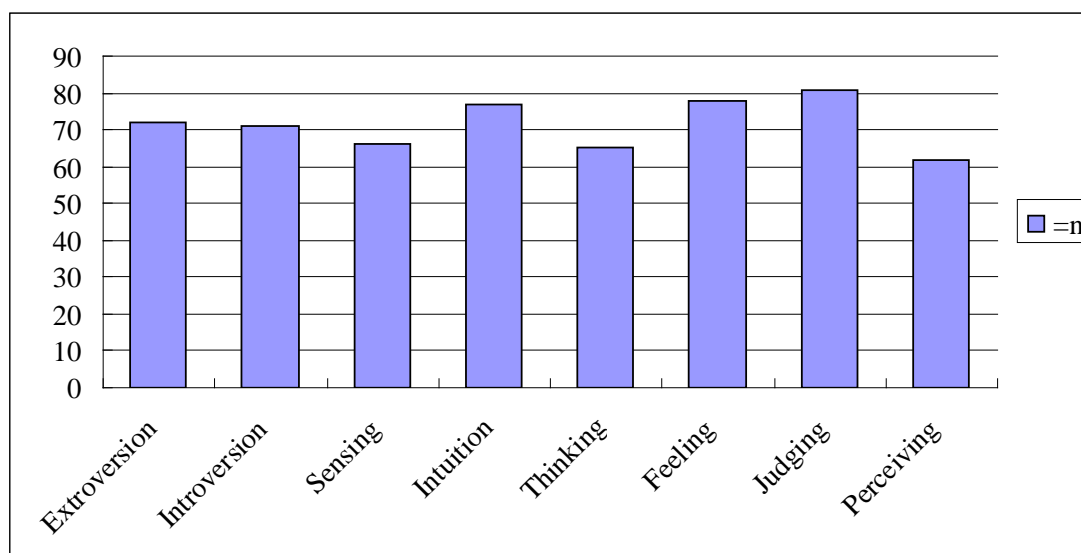


Figure 1 Comparison between the subjects' Mbt Preferences

According to the students' performance in the College English Test Band-4, they were further categorized into three groups: high achievers (over standard score 550), mid achievers (standard score 425 to 550) and low achievers (below standard score 425). Three groups of achievers are scattered across the MBTI type table. Most MBTI types have representatives of the three classes. Figure 2 shows that except ISTP in which no high achievers were represented and ISTJ of missing low achievers, the students of each grade were found in almost all sixteen types.

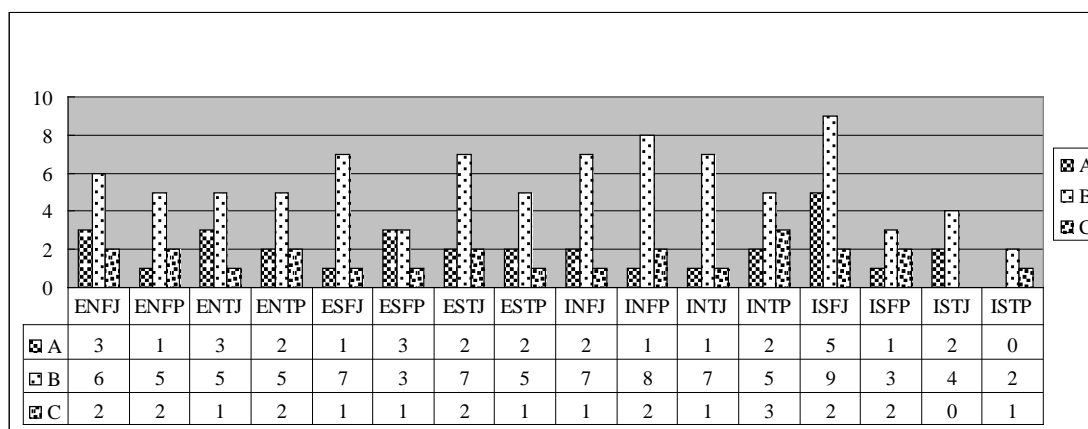


Figure 2 Distribution of Mbt Types in Terms of High, Mid and Low Achievement

Note: (1) A=high achievers; B=mid achievers; C=low achievers

(2) E=Extroversion; I=Introversion; S=Sensing; N=Intuitive; T=Thinking; F=Feeling; J=Judging; P= Perceiving. i.e. an ENFJ= an Extroversion Intuitive Feeling Judging person.

4.3 The Relationship between Learning Styles and Learning Achievements

When the present study takes the subjects' MBTI styles as the independent variables and their scores of CET-4 as dependent variables, no correlation was found between the two. Therefore, this study cannot discuss the relationship between learning styles and learning achievements.

4.4 Summary

This chapter presents the results of the subjects' learning style distribution.

5. Limitations

5.1 Limitations of the Study

There are two limitations that need to be addressed regarding the present study. The first limitation concerns the research method. Only quantitative analysis is employed. The research lacks qualitative approaches and case study, thus making it difficult to observe individual learners' traits.

The second limitation has to do with the subjects' learning environments. Students' learning styles are inseparable with their environments. Changes in environmental factors may lead to learners' timely adjustments of learning styles. Since this study assumes the stability of the environment and the learners' styles, the consideration, on the possibilities that learners may undergo a transformation in learning styles and preferences, is not involved.

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5.3 Suggestions for Further Research

Further research can randomly select subjects from different majors and expand the samples to cover each grade of university students, thus can be more representative.

In terms of research methods, more measurement tools can be introduced into future studies. Interviews, students' daily records or cases study can complement the quantitative approaches, so that the analysis on the results can be more comprehensively confirmed.

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