

# Study on the Application of Learning-Style in Junior Middle School English Teaching —Take the Eighth Grade of Z Middle School in H Province as an Example

Junbo Chen<sup>1,2,a</sup>, Hongwei Li<sup>1,b\*</sup>, Mengmeng Jin<sup>2</sup>, Jinglan Xue<sup>2</sup>, Jianfeng Li<sup>2</sup>

<sup>1</sup>Zhejiang Industry & Trade Vocational College, Wenzhou, China

<sup>2</sup>Cavite State University, Indang, Cavite, The Philippines

<sup>a</sup>christchen0317@163.com

<sup>b\*</sup>328116278@qq.com

## ABSTRACT

This research takes the 8 grade of Z middle school in H Province as the research object, adopts Reid's learning-style tendency questionnaire, analyzes it through SPSS17.0 software, describes and analyzes the learner's style tendency from the aspect of learning-style, and explores the relationship between the perception and learning-style of junior high school student English learning performance. Based on the research results, the author points out that teachers' and students' understanding of perceptual learning-style needs to be improved, and puts forward specific suggestions on how to apply perceptual learning-style in junior high school English teaching.

**Keywords:** learning-style; English teaching; strategy

## 1. INTRODUCTION

Modern education vigorously advocates "people-oriented", "student-centered" and "developing personalized teaching." The subject status and individual differences of foreign language learners in the language process have aroused the attention of foreign language teaching research. Many studies have shown that the individual differences shown by learners in the learning process are not only differences in intelligence, interest, motivation, etc., but also in learning-styles. In educational practice, teachers must fully consider the individual differences of learners in order to truly teach in accordance with their aptitude and achieve the best teaching effect. This research applies perceptual learning styles to junior high school English teaching, and conducts empirical research and analysis on the correlation between learning-styles and learners' English learning scores, so as to explore their internal relationships and effects. It has practical value and practical significance to improve English teaching quality and learners' English learning level.

## 2. OVERVIEW OF LEARNING STYLE

### 2.1. Definition of Learning-Style

Dunn and his wife define learning-style from the perspective of the factors or components of learning-style. In their view, the behavioral mode that students show when they concentrate on and try to master and remember new or difficult knowledge and skills is the learning-style.<sup>[1]</sup>Pask puts forward that "the tendency of students to always adopt a certain strategy in the learning process is called learning-style", and that learning-style is a learning tendency.<sup>[2]</sup>Reid believes that the way learners absorb, process and store new information and master new skills is the learning-style. Even if the teaching methods or learning content are different, this method will not be affected. It is natural and habitual.<sup>[3]</sup>In China, Tan Dingliang gave a more generally accepted definition of learning-style: learning-style is the learner's consistent learning style and learning tendency with individual characteristics.<sup>[4]</sup>

Although different experts and scholars have different descriptions of the definition of learning-style, all these definitions of learning-style are essentially the

same. They all refer to a learning method adopted by people in the learning process. It is a learning preference or learning tendency. It has individual characteristics. It is an individual learner who is affected by a specific family and society on a physical and psychological basis, formed by the individual's own long-term learning activities.

## **2.2. Classification of Learning-Style Tendency**

According to the nature and expression of learning-styles, learning-styles are roughly divided into the following categories: (1) Based on the perception mode of learning, it is divided into visual, auditory and tactile modes; (2) Based on cognitive methods, it can be divided into field-independent — field-dependent, reflective — impulsive and other paired modes; (3) Divided into introverted and extroverted based on emotional and character factors; (4) Classroom learning mode, including independent mode and cooperative mode. Because this classification standard is too absolute, it may not be suitable for everyone. A widely recognized classification method is to classify style tendencies into auditory, visual, kinesthetic, tactile group, and personal based on different channels of perceptual information.<sup>[5]</sup>

## **3. THE STATUS QUO OF RESEARCH LEARNING-STYLES AT HOME AND ABROAD**

### **3.1. Foreign Related Research**

Abroad, the research on learning-style began in the mid-1950s. Taking the perceptual learning-style as the main research object, Joy Reid has conducted in-depth and detailed investigation and research on it. In her opinion, learners can learn through different senses, and the preferred learning senses and learning methods exist for everyone. In addition, Keefe pointed out from the perspective of multiple orientations, based on the characteristics of cognitive affection and physiology, to observe the learning environment, the stable indicator of interaction and response is the learning-style.<sup>[6]</sup> Revealing the influence of learning-styles and using empirical methods to study the diversified factors of learning-styles is the focus of mid-term research on learning styles. Recent research is mainly to apply the study of learning-style to teacher teaching and student learning. In foreign countries, more than 30 learning-style theories and models have been directly applied to teaching practice.

### **3.2. Related Domestic Research**

In China, research on learning-style began in the 1990s, and the research momentum is very rapid. Researchers study the differences in learning-styles and

learning tendencies of learners from learners' physical, psychological and social factors. It provides new ideas for studying the dynamic psychological process and personality characteristics of learners. In addition, it also provides a theoretical basis for educators to implement personalized teaching principles. In the recent research content, the focus is on the effectiveness of learning and theory, and there is a lack of localized theory and research. In terms of subject scope, the current research on subject learning-style mainly focuses on second language acquisition, which must be broadened.

Generally speaking, the research on learning-style is not very mature. With the implementation of personalized education, learning-style will attract more and more attention.

## **4. RESEARCH PROCESS**

Aiming at the status quo of English learning of junior high school students, the author combines the learning-style theory with teaching experiments, hoping that the empirical research can provide a reference for exploring the reform of teaching English in junior high school. The research process is as follows:

### **4.1. Questionnaire Survey**

The number of subjects in this survey is 130, and they are students in class A and class B of the eighth grade of Z middle school in H province, of which 68 are boys and 62 are girls. This questionnaire uses Reid's perceptual learning-style tendency questionnaire. The questionnaire has 30 questions, including 6 learning-styles: those with strong visual response, those with strong auditory response, those with strong kinesthetic response, those with strong tactile response, independent learners, and group collaborators. The serial numbers corresponding to these 6 learning styles are: visual (1, 7, 13, 19, 25); hands-on (2, 8, 14, 20, 26); auditory (3, 9, 15, 21, 27); group type (4, 10, 16, 22, 28); experience type (5, 11, 17, 23, 29); individual type (6, 12, 18, 24, 30). This questionnaire uses multiple-choice questions, using the 5-point scoring method of the Likert scale (1-5 Likert scale); 1=I totally disagree, 2=disagree, 3=don't know, 4=agree, 5=complete Agree; take the answer 1 for 1 point, 2 for 2 points, 3 for 3 points, 4 for 4 points, and 5 for 5 points; score according to the six dimensions, and then multiply the total score by 2; 38- A score of 50 is the main learning-style; a score of 25-37 is a secondary learning-style; and a score of 0-24 is a negligible learning-style. A sample form of the learning-style questionnaire is shown in Table 1.

### **4.2. Analysis of Survey Results**

After processing the collected data, using SPSS17.0 software, through descriptive statistical analysis, independent sample T-test, analysis of variance, etc., the

overall characteristics of middle school students' English learning-style preferences, and whether there are gender differences in middle school students' English learning-styles are counted, The analysis results are shown in Table 1.

**Table 1** Overall distribution of students' learning-styles

	N	Minimum	Maximum	Mean	Std. Deviation
Visual	130	12	50	37.02	8.468
Hands-on	130	26	52	37.86	6.375
Auditory	130	10	50	30.98	8.490
Group	130	22	52	37.63	6.556
Experiential	130	24	50	37.22	5.896
Personal	130	22	46	32.86	6.449
Valid N (listwise)	130				

The data in Table 1 shows that among the eighth graders, hands-on mode learners accounted for the most (M-37.86), followed by group mode learners (M-37.63) and experience mode learners (M-37.22), visual mode learners (M-37.86) 37.02), and the auditory model (M-30.98) is the least, followed by the individual model learner (M-33.86). This shows that the language learning-styles of middle school students are diverse. Language learning is a complex process. It needs to mobilize the coordinated development of various sensory channels. Obviously, one learning method or a sensory participation alone cannot achieve success. From the survey results, the main learning mode of middle school students is hands-on and group mode, which shows that middle school students prefer intuitive teaching methods such as demonstrations and experiments. It also shows that respondents like to directly participate in specific teaching activities, such as group discussion, role play, etc.

**4.3. Teaching Strategy**

In this teaching experiment, the subjects are students in Class A and Class B of the eighth grade of Z Middle School in H Province (Teaching with learning style-related activities in Class A, still using traditional teaching methods in Class B). The specific strategies are shown in Table 2.

**Table 2** Teaching strategies of Class A

Style Type	Teaching Strategy
Visual	Use videos, movies, charts, pictures, charts,
Auditory	Use reports, songs, teacher lectures, etc.
Hands-on	Use the "learning by doing" strategy, play games,
Experiential	Lectures, role-plays, performances, participation
Personal	Independent learning, analytical teaching,
Group	Teaching methods, teachers monitor learning,

**4.4. Teaching Experiment Results and Analysis**

**4.4.1. Comparative Analysis of Results**

An independent sample T test was performed on the final grades of Class A (Teaching with learning style-related activities) and Class B (using traditional teaching methods) to see if there is a significant difference between the two classes. The results are shown in Table 3.

**Table 3** independent sample T test of final grades

	Class	N	Mean	Std. Deviation	Std. Error	
Score	A*	66	72.81	10.179	1.449	
	B*	64	65.36	11.517	1.662	
t-test for Equality of Means						
		t	df	Sig.	Mean	Std. Error
Score	Equal	2.773	96	.008	6.172	2.193
	Equal	2.767	93.527	.008	6.172	2.198

Class A\*: Teaching with learning style-related activities; Class B\*: using traditional teaching methods.

Table 3 shows that after a semester of teaching experiment, comparing the results of the two classes before and after the combined learning-style teaching, the teaching effect has a significant difference (p=.008<0.05).

**4.4.2. Correlation Analysis of Learning-style and English Achievement**

The author uses SPSS17.0 statistical software to calculate the correlation between the six learning-styles: visual, hands-on, auditory, group, experience, and personal, and the results are shown in Table 4 below.

**Table 4** the correlation between the learning-style and performance of Class A

		Visual	Score
Visual	Pearson Correlation	1	.927**
	Sig. (2-tailed)		.000
	N	66	66
Score	Pearson Correlation	.927**	1
	Sig. (2-tailed)	.000	
	N	66	66
**. Correlation is significant at the 0.01 level (2-tailed).			
		Hands-on	Score
Hands-on	Pearson Correlation	1	.187
	Sig. (2-tailed)		.187
	N	66	66
Score	Pearson Correlation	.187	1
	Sig. (2-tailed)	.187	
	N	66	66
		Auditory	Score
Auditory	Pearson Correlation	1	.832**
	Sig. (2-tailed)		.000
	N	66	66

Score	Pearson Correlation	.832**	1
	Sig. (2-tailed)	.000	
	N	66	66
**. Correlation is significant at the 0.01 level (2-tailed).			
		Group	Score
Group	Pearson Correlation	1	-.078
	Sig. (2-tailed)		.597
	N	50	50
Score	Pearson Correlation	-.078	1
	Sig. (2-tailed)	.597	
	N	66	66
		Experiential	Score
Experiential	Pearson Correlation	1	-.029
	Sig. (2-tailed)		.869
	N	66	66
Score	Pearson Correlation	-.029	1
	Sig. (2-tailed)	.869	
	N	66	66
		Personal	Score
Personal	Pearson Correlation	1	.059
	Sig. (2-tailed)		.712
	N	66	66
Score	Pearson Correlation	.059	1
	Sig. (2-tailed)	.712	
	N	66	66

According to the data in Table 4, there is no significant difference in English performance and experience, hands-on, group and individual mode experience  $\text{sig.}(2\text{-tailed})=.869>0.05$ , hands-on  $\text{sig.}(2\text{-tailed})=.187>0.05$ , group  $\text{sig.}(2\text{-tailed})=.597>0.05$ , personal  $\text{sig.}(2\text{-tailed})=.712>0.05$ , and visual  $\text{sig.}(2\text{-tailed})=.000<0.05$ , auditory learning style mode  $\text{sig.}(2\text{-tailed})=.000<0.05$  shows a significant positive correlation, which indicates that students who prefer visual and auditory learning modes in the process of English learning have strong input capabilities, receive a large amount of information, and are strong in English reading and listening, and output capabilities Correspondingly, the oral and writing scores have also been improved accordingly.

Through the analysis of the correlation between learning style and English performance, the following conclusions can be drawn: In the process of English teaching, teachers should make full use of students' own outstanding learning styles to carry out relevant teaching activities, stimulate students' interest in learning, and improve teaching effects.

## **5. ENLIGHTENMENT FOR ENGLISH TEACHING IN JUNIOR HIGH SCHOOL**

### **5.1. Enhance awareness of learning style**

On the one hand, junior high school students do not

have enough awareness of learning-style , which requires teachers to help students find out their own learning-style characteristics, let them realize what learning-style they have, and which learning-style is more suitable for them, so as to further stimulate Interest in English learning. On the other hand, teachers should raise the awareness of individual differences of learning-styles, consciously guide students, and let students form their own unique learning-styles.

### **5.2. According to the differences in learning-styles, teach students in accordance with their aptitude**

This survey found that middle school boys tend to have a hands-on learning-style, while girls tend to have an experiential learning-style. This requires teachers to provide as many learning opportunities as possible role performances and imitations in teaching activities to promote students to master English language knowledge. Based on the strengths and weaknesses of students, teachers can choose comprehensive use of various teaching methods, so that students in the face of different learning tasks have good coping strategies.

### **5.3. Expand learning styles and adopt intentional adaptation strategies**

Although the learning-style is relatively stable, the learner's learning-style will be changed by the learning environment and experience, so the learning-style is malleable. Since language learning is a process of comprehensive knowledge learning and ability improvement, it requires multiple learning-styles to work together to play a role. Teachers should consciously expand students' other learning-styles and adopt teaching strategies that are not completely consistent with the learner's preferred learning-style in the teaching process, that is, deliberate adaptation strategies, through conscious implementation of this strategy, to make up for the lack and insufficiency of students' learning skills.

### **5.4. Respect the differences in learning-styles of students of different genders**

The obvious difference in survival between men and women is in the group learning-style. When teachers are designing classroom teaching activities, they should respect the gender differences of students, adopt diversified teaching strategies, and flexibly adjust classroom teaching activities so that students can play their own roles. Gender advantage, actively participate in teaching activities.

## **6. CONCLUSION**

This empirical research shows that junior high

school students tend to visual, experience, and group mode, but the individual learning-styles of students are different. The author suggests that middle school English teachers can try the following: Teachers should improve their awareness of learning-styles and organize teaching according to the characteristics of students' learning-styles; Guide students to understand their own learning-style; Adopt flexible and diverse teaching strategies and forms; develop diverse learning-styles. Of course, this research is still very superficial, and there are many things worthy of further exploration and research in this field, such as the relationship between learning-style and teaching style and how the two interact; How to help learners adjust, expand and enrich their learning-styles according to their learning tasks are also our current and future research directions.

## REFERENCES

- [1]Dunn, R.&Dunn K.(1986)Teaching Students to Read Through Their Individual Learning Style. Prentice Hall, pp.4-14.
- [2]Pask , G.(1976)Styles and Strategies of Learning.British Journal of Education Psychology, 46:128-148.
- [3]Reid, J. M.(2002)Learning Styles in the ESL/EFL Classroom.Foreign language Teaching and Research Press, Beijing.pp.85-90.
- [4]Dingliang Tan.(1995)Learning style and teaching strategy.Educational Research, 1:72.
- [5]Reid , J.(1998)The learning style preference questionnaire.TESOL Quarterly, 2:52-64.
- [6]Keefe J, W.(1998)*Profiling and Utilizing Learning Style*, NASSP, Reston.
- [7]Keefe , J. W.(1987)Learning Style Theory and Practice, VA: National Association of Secondary School Principals, Reston.pp.97-101.
- [8]Kinsella, K.(1995)Understanding and Empowering Diverse Learners. In J. M. Reid, Learning styles in the ESL/EFL classroom. Hoinle&Heinle publishers, Boston.pp.34-36.
- [9]Melton, C. D.(1990)Bridging the Cultural Gap: A Study of Chinese Students' Learning Style Preferences. RELC Journal, 1:29-54.
- [10]Reid, J. M.(1995)Preface. In J. Reid (Ed.). Learning styles in the ESL/ EFL classroom. Heinle and Heinle Publishers, New York. pp.1-3.
- [11]Dan Zhao , Huiyan Xia.(2017)Research on the Correlation between Perceptual Learning Style and English Proficiency. Journal of Tianjin Radio & TV University, 1:31-35.
- [12]Lixia Li et al.(2020)Study on the Correlation between Learning Style and Assessment Results——Based on Kolb Learning Style Theory. Journal of Higher Education, 35:82-86.
- [13]Longxuan Zhao.(2017)The Enlightenment of Learning Styles and Learning Methods to English Teaching. College Entrance Examination, 15:120.
- [14]Xiaoxia Liu.(2018)Research on English Learning Strategies and Learning Styles. Examination and Evaluation, 4:148-149.
- [15]Xuemei Zhao.(2019)A Review of Research on English Cognitive Learning Styles. Drama House, 30:163-164.
- [16]Yongcheng Cao.(2019)A review of domestic research literature on English learning styles in the past two decades. Changjiang Series, 18:60-61.
- [17]Yuanyuan Xu.(2016)Study on the Correlation between Learning Style, Second Language Motivation Strategies and English Achievement. Journal of Jixi University, 16:119-123.
- [18]Yuyi Lai.(2021)A Study on the Correlation between Junior Middle School Students' Learning Styles and English Learning Performance. Campus English, 29:151-152.