

# **Delta Method (差异法)**

**中文 L2 教学法的一项突破**

**A breakthrough in teaching/learning Chinese as a second language**

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## **Abstract**

This proposal is to introduce a breakthrough in teaching/learning Chinese as a second language: the **Delta Method**.

A common misconception among English speakers about learning Chinese language is that Chinese is an extremely difficult language to learn, for it is such an unfamiliar language and differs in all aspects of western languages. As a result, this misconception creates anxiety, self-doubt, and intimidation – a sign of high ‘Affective Filter’ – a mental resistance that obstructs learning. In addition, the traditional teaching method takes students straight into an unfamiliar territory and builds a separate silo there in brute force. Expectably, the Foreign Service Institute (FSI) of The State Department has rated Chinese as the most difficult language for English speakers to learn. Some teachers of Latin-based languages have occasionally utilized the ‘similarities’ in their teaching. However, there is still no systematic, well-structured pedagogical solution that would capitalize on reusing learners’ existing knowledge of their native language (L1) to fuel and accelerate their learning and catapult them into greater mastery of their target language (L2) in a much shorter time.

Today’s language education industry strives competitively to ‘innovate’ by pushing the limits of technology atop the traditional method. However, in addition to extensive use of technology, the ‘true innovation’ can be found by taking an unconventional perspective, where a rich, untapped resource that already exists in learners can be reused to fuel the learning of a new language:

**“Reuse learner’s 1st language (e.g. English) to learn a 2nd language (e.g. Chinese)”**

As a modified ‘Contrastive Analysis,’ this method compares students’ native language L1 (English) and the target language L2 (Chinese), and finds their similarities and differences (the Delta,  $\Delta$ ) in areas such as vowels, consonants, syllables, intonation, grammar, number system, usage, etc., and presents them systematically through ‘scaffolding’ technique to facilitate learning. As a result, the method eliminates ‘Affective Filter’ and enables ‘Schema Activation,’ for it places learners in a familiar environment and feeds with ‘comprehensible input,’ and makes acquisition of a new language much easier, faster, and more confidence-inspiring.

Naturally, this method is applicable universally to any language pair:

**‘Any 1st language X to any 2nd language Y’**

The student learns only the difference  $\Delta$ , between X and Y, thus the more similar between X and Y, the less effort the learners are to absorb the  $\Delta$ .

# Delta Method (差异法)

## 前言

- 这是一个 **unconventional** 的 **L2** 教学方法
- 完全符合：教育学和语言学的理论
- 适用学生年龄：初中以上到成人
- 适用学生程度：初级(N)、中级(I)、初期高级(A)
- 使用结果：省时 **50%** 以上 (例子)
- 实验时间：九年
- 成功率：**100%**



- 请大家以一个欣赏‘**创新**’的角度来一起分享

# Delta Method (差异法)



『妈妈咪呀 2013』 《劇院魅影 The Phantom of the Opera-李莉》  
问：妳不懂英文，可妳的英文是怎么唱出来的呢？

- ① 先用**母语**来模拟  
英语发音
  - ② 加上老师指出  
的差异
  - ③ 得到正确  
英语发音
- Diagram illustrating the Delta Method process:
- ① 先用**母语**来模拟  
英语发音
  - ② 加上老师指出  
的差异
  - ③ 得到正确  
英语发音
- The diagram shows three steps in a sequence. Step 1 is at the bottom, step 2 is in the middle, and step 3 is at the top. A large blue vertical arrow points upwards from step 1 to step 3. To the left of the arrow, there are three small arrows: a yellow double-headed arrow between steps 1 and 2, a blue double-headed arrow between steps 2 and 3, and a green double-headed bracket spanning all three steps.

# Delta Method (差异法)

## Example: Learn to count to a trillion in 10 min.

		hun	ty									
3	1	7	2	5	8	0	4	0	7	2	9	6

↑  
trillion      billion      million      thousand

	thou	hun	ty		thou	hun	ty		thou	hun	ty	
3	1	7	2	5	8	0	4	0	7	2	9	6

↑ qīan    bǎi    shí      ↑ qīan    bǎi    shí      ↑ qīan    bǎi    shí  
**兆 zhào**      **亿 yì**      **万 wàn**

0	1	2	3	4	5	6	7	8	9
líng	yī	èr	sān	sì	wǔ	liù	qī	bā	jiǔ

1 trillion	100 million	10 thousand	1,000	100	10
<b>兆 zhào</b>	<b>亿 yì</b>	<b>万 wàn</b>	<b>qīan</b>	<b>bǎi</b>	<b>shí</b>

## Example: 5-Tone Skit

A guy and his girlfriend are on a date chatting on a bench in the park. As the romantic conversation moves along, the guy suddenly jumps up and says:

**Guy:** Oh **mannnnn** (1<sup>st</sup> tone), I almost forgot the most important thing in my life!

**Girl:** Whaaaaat? (2<sup>nd</sup> tone)

**Guy:** Will you marry me?

**Guy:** Weeeeeellllllll? (3<sup>rd</sup> tone)

**Girl:** Noooooo! (4<sup>th</sup> tone)

**Guy:** May ... may I ... I know why?

**Girl:** This is only our second date!

**Guy:** Oh. (5<sup>th</sup> tone)

# Delta Method (差异法)

## Example: Vowels & Consonants

Pinyin	English Equivalent or Best Approximation
an	w <u>and</u>
ang	y <u>oung</u>
e	the <u> </u>
en	gold <u>en</u> , citizen <u> </u>

Pinyin	English Equivalent or Best Approximation
eng	l <u>ung</u>
ian	Japanese <u>yen</u>
iu	Le <u>o</u>
ou	h <u>o</u> h <u>o</u> h <u>o</u>

shi	shir ( <b>small Δ</b> )	shì
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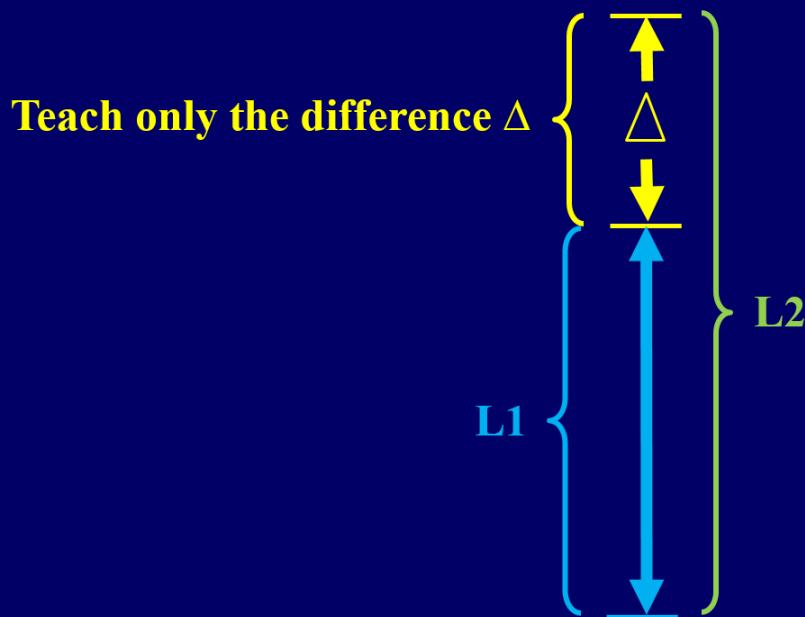
ri	<u>zir</u> ( <b>medium Δ</b> )	rén
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The zero-beginner students are able to pronounce Pinyin with right tones without the teacher!

- 以上四例的共同点：都有用到『L1 知识』
  - 可以 activate 学生的 Schema (L1 知识)
  - 可以去除 Affective Filter (学习上的心理障碍)
  - 自然就产生了 Comprehensible Input
- 把四例表达出来的设计：Scaffolding
- 与 Contrastive Analysis (CA)有何不同？
  - CA: L1 **interferes** the learning of L2
  - DM: L1 **fuels** the learning of L2

# Delta Method (差异法)

## Delta Method



## The Similarity between Chinese and English

- (1) Over 90% of Chinese **vowels** are present in English.
- (2) Almost 60% of Chinese **consonants** are present in English.
- (3) 100% of Chinese **five tones** are imbedded in the intonation of English.
- (4) The number of **syllables** is also similar. Example: teacher (lǎo shī), student (xué shēng).
- (5) Chinese **grammar structures** are very similar to that of English.
- (6) The two **number systems** are quite similar.
- (7) Some **usages** are similar too, such as: good-looking (hǎo kàn), looking good (kàn hǎo).

# Delta Method (差异法)

English: They gave me a gift.				
Chinese mentality: { same as in English }				
They	gave	me	a	gift.
他们	给了	我	一件	礼物。
Subject	verb	ind. obj.	direct object	

‘a’ = ‘one’ = 一件

Δ: in Chinese, 件 is the measure word for gift

← Same as in English

English: I'll treat you <u>to</u> a cup of coffee.				
Chinese mentality: I'll treat you <u>to</u> drink coffee.				
I	[will]	treat	you	to drink coffee.
我	[要] ( $\Delta_2$ )	请	你	喝咖啡。
Subject	[aux.]	incomplete transitive verb	object	complement

$\Delta_1$ : to a cup of coffee = ‘to drink coffee’ in Chinese

$\Delta_2$ : [ ] means optional, because in fact, in Chinese view, the future tense is actually implied in the sentence.

← same as in English

English: You are a teacher, aren't you?				
Chinese mentality: { same as in English }				
You	are	a teacher,	aren't	you?
你	是	老师,	不是	-?
你	是	老师,	不-	-?

$\Delta_1$ : no articles in Chinese

$\Delta_2$ : ‘you’ is well-known, so it's dropped.

$\Delta_3$ : 是 can be customarily dropped.

English: You ate breakfast, didn't you?				
Chinese mentality: { same as in English }				
You	ate	breakfast,	didn't	you?
你	吃了	早饭,	没有	-?

$\Delta_1$ : The well-known ‘you’ is dropped

$\Delta_2$ : The 有 can be customarily dropped.

English: I didn't eat breakfast.				
Chinese mentality: { same as in English }				
I	didn't	eat	breakfast.	
我	没有	吃	早饭。	

Amazing correlation: that the verb following an auxiliary verb is in its ‘root’ form for both languages.

# Delta Method (差异法)

**English:** I slept a good sleep.

**Chinese mentality:** {same as in English}

I	slept	a	good	sleep.
我	睡了	一个	好	觉。

He	lets	me	go.
他	让	我	去。
He	lets	me	go first.
他	让	我	先去。

Δ: The adverb ‘first’ goes before the verb ‘go’.

**English:** Birds fly **in the sky**.

Birds	in the sky	fly.
鸟儿们	在天空中	飞翔。

Δ: **in the sky** = **prepositional phrase**  
= **adverbial**

subject	verb	adverbial	
Time	passes	so quickly.	
subject	verb	de	adjective
时间	过	得	很快。

Δ: Only 用于说明主词 perform  
动词的能力, etc. (adverb of manner)

# Delta Method (差异法)

把字句的结构在英语里也有！

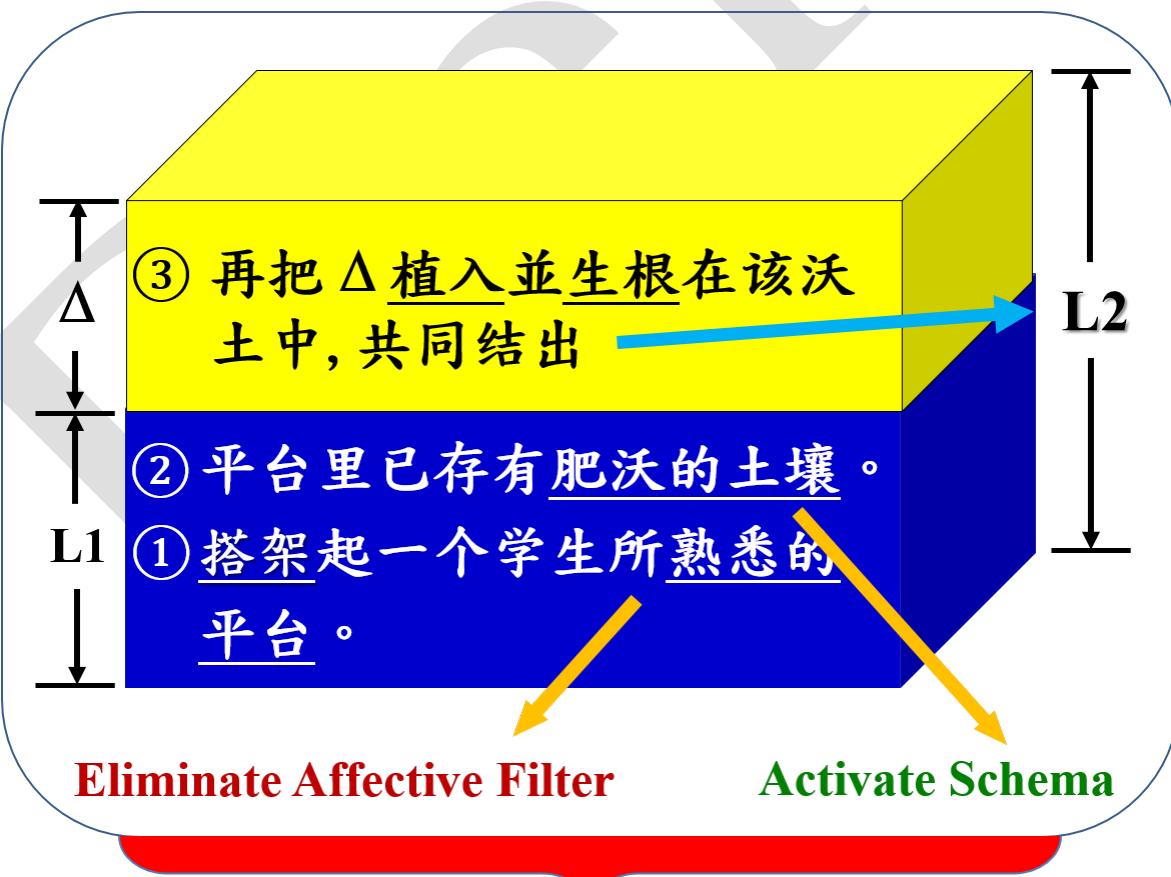
subject		verb	Object		
He		mopped	the	floor	.
他		擦了	( $\Delta_1$ )	地板	。
					verb
他	把 ( $\Delta_3$ )	-	-	地板	擦了。
He	got		the	floor	mopped.

$\Delta_1$ : no ‘article’ in Chinese

$\Delta_2$ : Not often used in English, but it’s a common structure for Chinese.

$\Delta_3$ : Another difference is that in Chinese ‘he’ indeed mopped the floor, whereas in English, ‘he’ may not be the person who mopped the floor.

## 结论: Delta Method



## Scaffolding (搭架和植入的设计)

# Delta Method (差异法)

- 『使用 L1 的知识』在有效的 L2 学习上是绝对必要的
- 完全符合教育学和语言学的理论
- 可将 Novice 『**投射**』入 Intermediate, or higher
- 省时 50%、60%、80% 以上？成功率：100%？
- Going forward... : 抛砖引玉
  - Delta Method 是 L2 教学上的新领域
  - Pioneering Research Opportunities:
    - Scaffolding design & optimization
      - Grammar (Syntax), culture, etc.
      - Semantics: 了、得、着、使、把、etc.
    - Current Activities
      - Delta Method ESL (NCSU)
        - L1 = Chinese, L2 = English
        - L1 = any, L2 = English
      - Delta Method Spanish
      - Delta Method German
      - Summer immersion programs (7<sup>th</sup> grade and up)
    - Delta Method: 硕士、博士的研究项目？
    - Delta Method Chinese 实验教室？
    - Collaboration: Research? Talks? Workshops?

谢谢！ Q & A