Meaningful and Effective Chinese Vocabulary Learning

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Zhao, Jing

Why Is Vocabulary Learning Important?

Meanings

Pattern

Orthographic knowledge

Pronounce

Vocabulary

Facilitates

informs

Exercises

informs

Reading

reflects

indicates

strengthen

Uses

decides

organizes

Writing

Culture

Oral Language

Grammar

Why Is Chinese Vocabulary Learning Important?

- Cognitive process

Phrase

Words(27% character)

Characters(morphemes)

Pinyin
Radicals
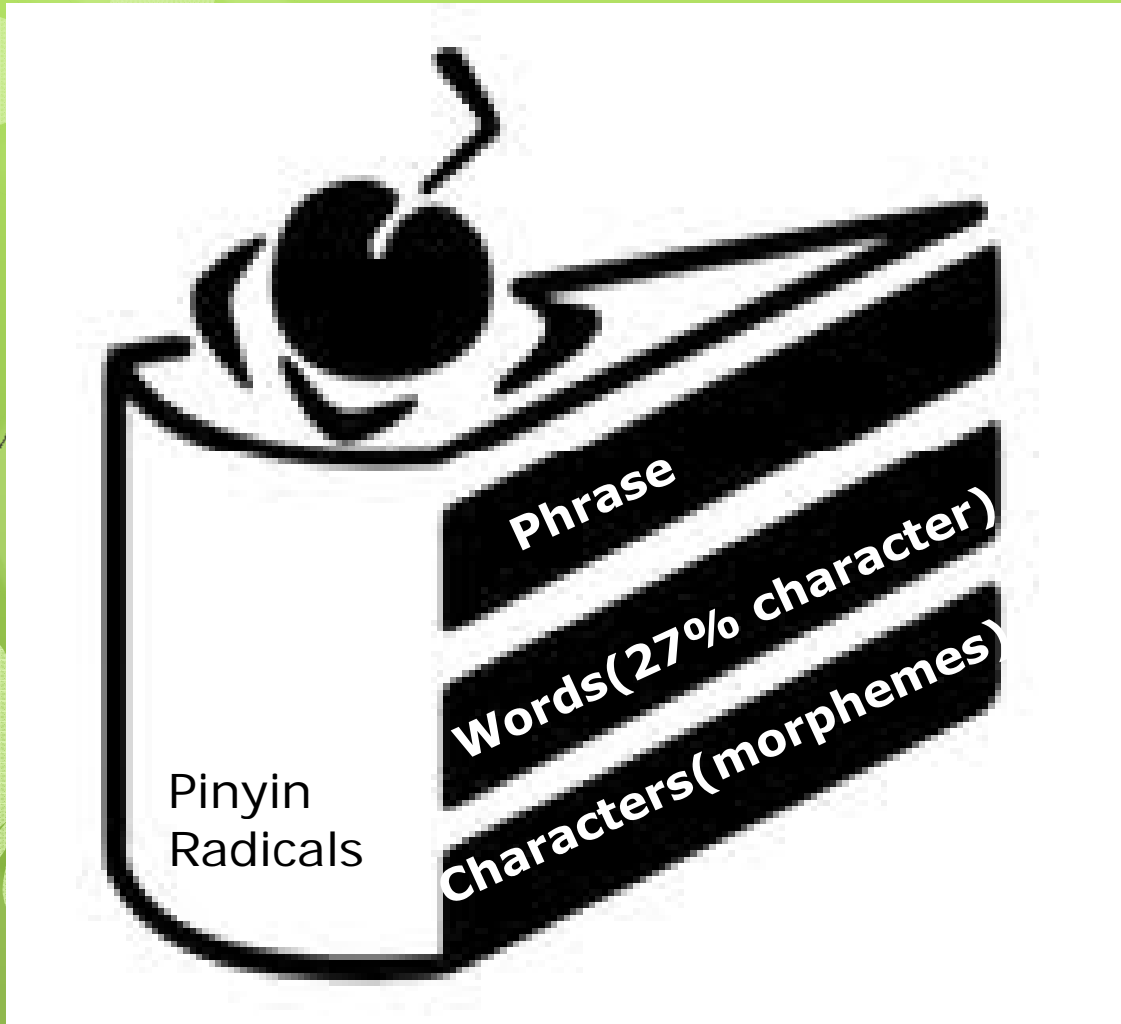
The cognitive process
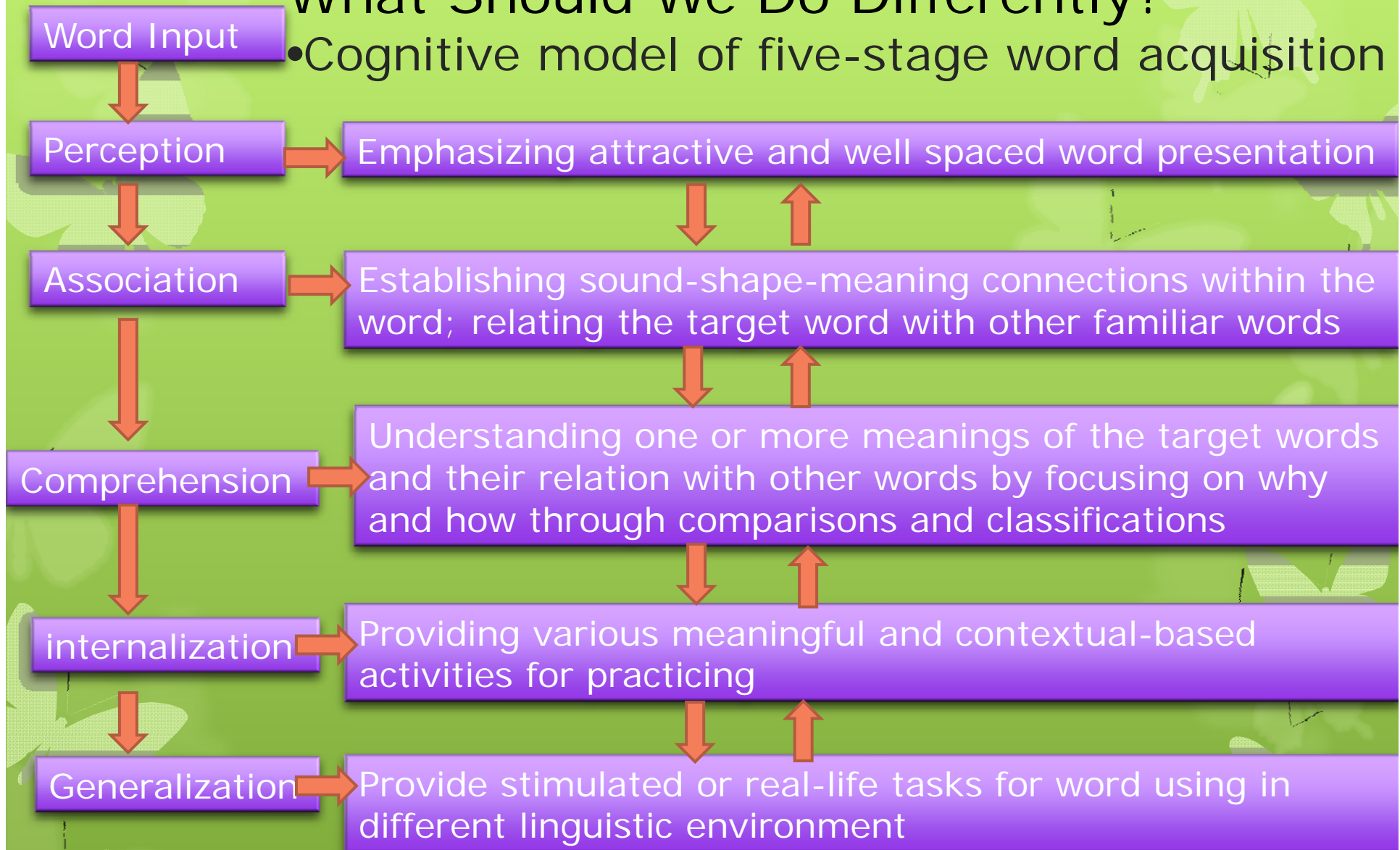for Chinese vocabulary learning

MEANING

PATTERN

ALPHABET
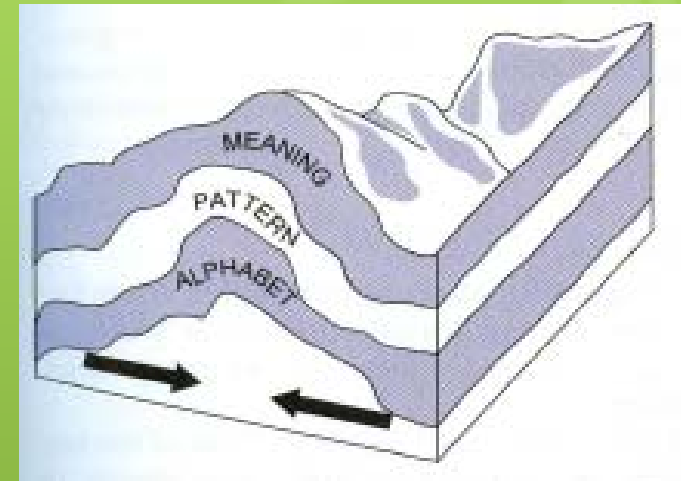
The cognitive process
for English vocabulary learning

Bear, R.D & Invernizzi, M. (2004) *Words Their Way*

What Should We Do Differently?

- Cognitive model of five-stage word acquisition

Word Input

Perception → Emphasizing attractive and well spaced word presentation

Association → Establishing sound-shape-meaning connections within the word; relating the target word with other familiar words

Comprehension → Understanding one or more meanings of the target words and their relation with other words by focusing on why and how through comparisons and classifications

internalization → Providing various meaningful and contextual-based activities for practicing

Generalization → Provide stimulated or real-life tasks for word using in different linguistic environment

The linguistic features of Chinese Script
汉文字的特性

No obvious sound to script correspondence

马　　mǎ

The linguistic features of Chinese Script
汉文字的特性

Complexity of the graphic configuration.
The number of strokes in a given character
can vary from one to 36.

一（yī）　　　齉（nàng）

The linguistic features of Chinese Script
汉文字的特性

Character are equal spaced in the text and provide no visual cues for word segmentation

大 家 都 说 他 是 一 个 人 才。

Big family all say he is one individual person talent

People all say (that) he is (a) talented (person).

大家 **(everybody)** 个人 **(individual)** 人才**(talented person)**

The decision about how to group characters into different words is based on the semantic information derived from the context.

Why Is Chinese Vocabulary Learning Important?

- Linguistic Feature

	Chinese	English
1.	No	Sound to spelling corresponding
2.	Meaning - shape connection	No
3.	Distinguished four tones + natural non-tone	No
4.	Characters are free morphemes	Bound morpheme
5.	No	Clear word boundary
6.	Logographic writing (multiple strokes and configuration)	Alphabetic writing (simple strokes and no configuration)

Helen H. Shen(2011) Teaching Chinese as a Second Language : Vocabulary Acquisition and Instruction

What do these mean for learning Chinese vocabulary?

Students are facing some unique challenges in learning Chinese characters:

- Cognitive restructuring **认知结构重组**

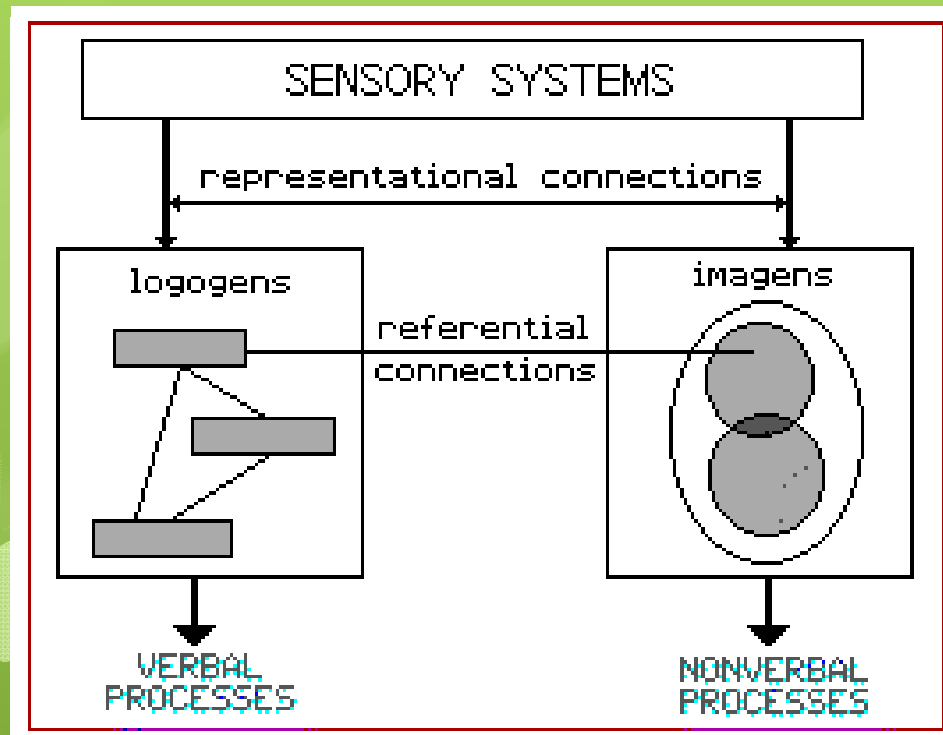- Negative transfer from L1 **第一语言负迁移**

What Should We Do Differently?

Cognitive theories

- Dual coding theory

- Level-of processing theory

- Multi-system account theory

- Competition theory

- Cognitive load theory

What Should We Do Differently?

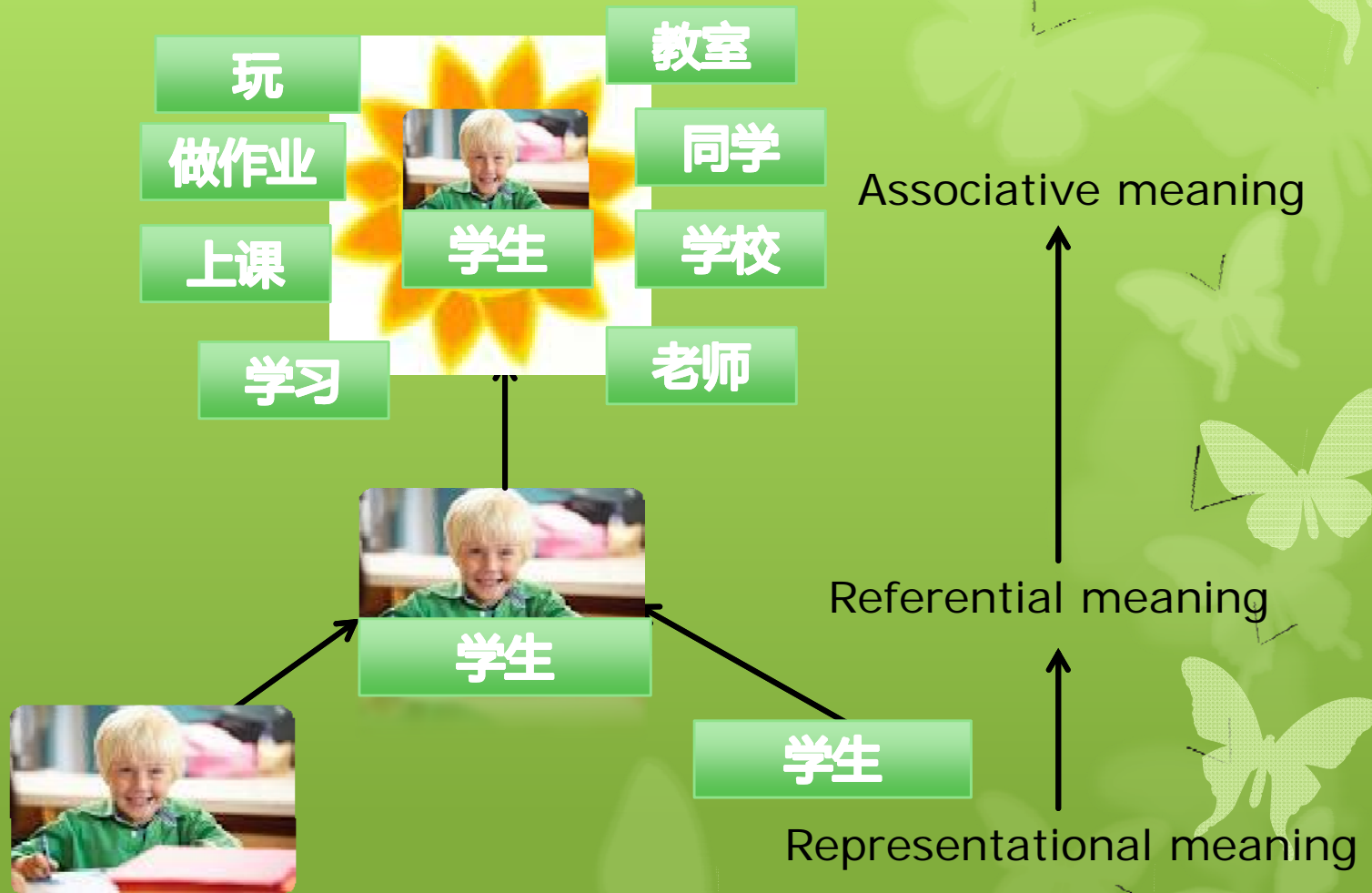- Cognitive theories
  - Dual Coding Theory (A. Paivio)
  - Overview

Paivio, A.(1986) Mental representations: A dual coding approach

What Should We Do Differently?

- Cognitive theories
  - Dual Coding Theory (A. Paivio)
    - Example

玩

做作业

上课

学习

教室

同学

学校

学生

老师

学生

学生

Associative meaning

Referential meaning

Representational meaning

What Should We Do Differently?

- Cognitive theories
  - Dual Coding Theory (A. Paivio)
    - Pedagogical implication

| Amount of Vocabulary	Vocabulary <=500	Vocabulary >500
Pedagogical implication	Representational meaning Referential meaning Teachers should show students both words with their corresponding pictures.	Referential meaning Associative meaning Teachers should help students activate prior knowledge.

What Should We Do Differently?

- Cognitive theories
  - Dual Coding Theory (A. Paivio)
    - Pedagogical implication

Amount of Vocabulary	Vocabulary <=500	Vocabulary >500
Activities & Examples	Picture Teller (看图解字) Memory Matching (记忆配对) Find the Difference (找异类词)	Words in the character(字中字) Vocabulary tree(集思广益) Seeing Relations (部分与全体)

What Should We Do Differently?

- Cognitive theories
  - Level-of-processing theory(Craik & Lockhart)
    - Overview
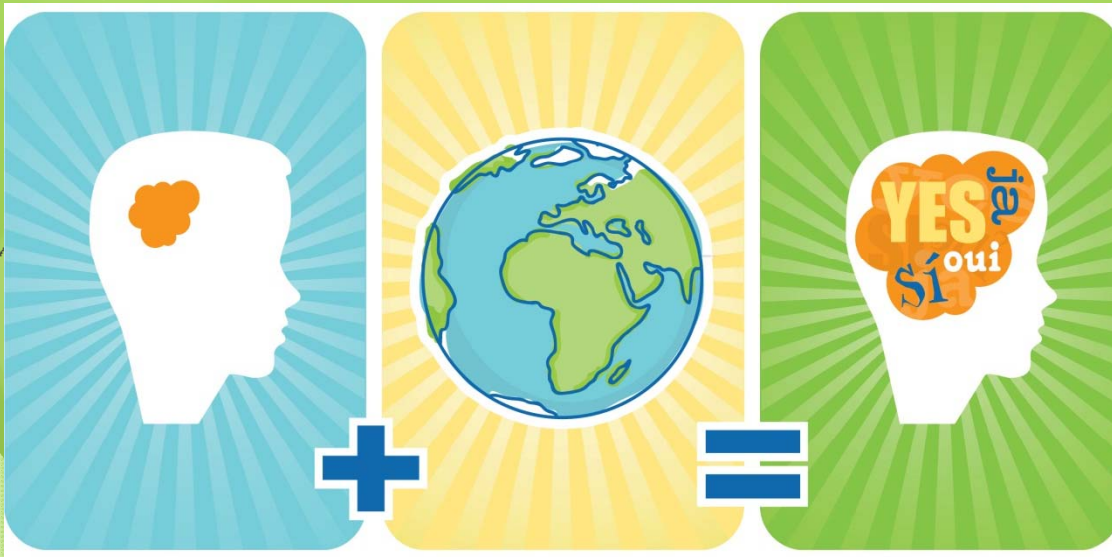
Shallow lever

Intermediate lever

Deep lever

Craik, F.I.M. & Lockhart, R. S.(1972) Level of processing: A framework for memory research,

What Should We Do Differently?

- Cognitive theories
  - Level-of-processing theory(Craik & Lockhart)
    - Example

经济

浅度加工	中度加工	深度加工
经济就是一切与生产、分配、流通和消费有关的活动.	例如：我们可以把经济和其它词语和起来用. 经济学家、经济原理、经济作物、市场经济、发展经济	例如：经济和我们的生活有什么关系?

Shallow lever

↓

Intermediate lever

↓

Deep lever

Shallow lever ———————————————→ Deep lever

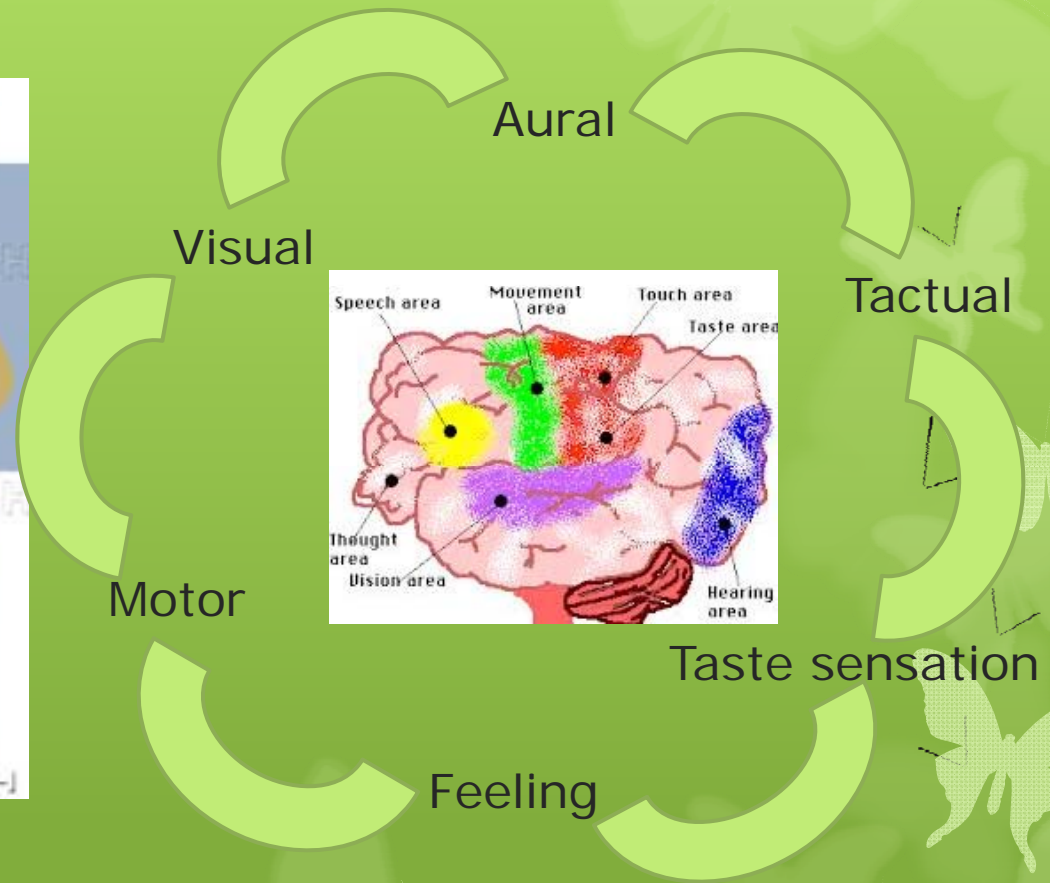Encode the written word "economics"(the subject can analyze it at various levels of processing)

What Should We Do Differently?

- Cognitive theories
  - Level-of-processing theory(Craik & Lockhart)
    - Pedagogical implication

Amount of Vocabulary	Vocabulary <=500	Vocabulary >500
Pedagogical implication	Provide etymological and orthographic information for new characters.	Increase elaboration and effort level of encoding.

What Should We Do Differently?

- Cognitive theories
  - Level-of-processing theory(Craik & Lockhart)
    - Pedagogical implication

Amount of Vocabulary	Vocabulary <=500	Vocabulary >500
Activity & Example	Connections (大有关系) Find a Partner (找伙伴) Sentence Pyramid （金字塔造句）	Sense the difference (另类异项) Illustration of Differing Meanings (画图释义) Palingram （倒顺词/回文） Task based vocabulary instruction (词语串讲)

What Should We Do Differently?

- Cognitive theories
  - Multisystem account (Engelkamp)
    - Overview

Aural

Visual

Tactual

Motor

Taste sensation

Feeling

Tulving, E.(1972) Episodic and semantic memory

What Should We Do Differently?

- Cognitive theories
  - Multisystem account (Engelkamp)
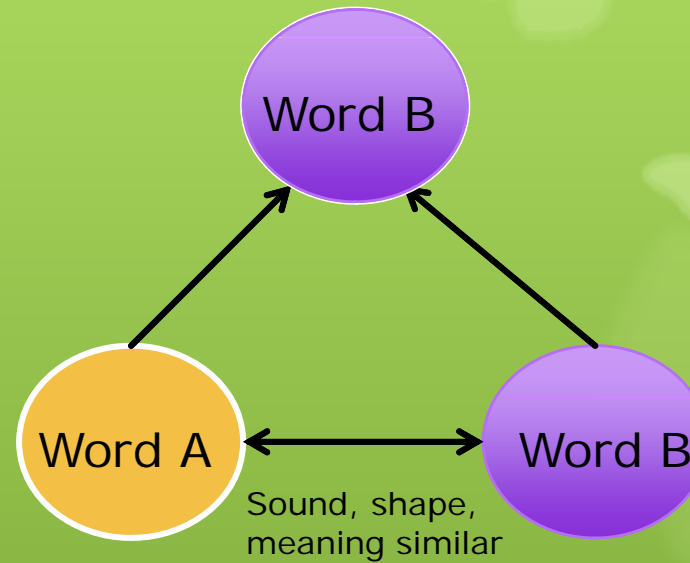   - Example

汉字的动画

What Should We Do Differently?

- Cognitive theories
  - Multisystem account (Engelkamp)
    - Pedagogical implication

Amount of Vocabulary	No requirement
Pedagogical implication	Songs, rhymes, chants, and musical activities Games-a natural way

What Should We Do Differently?

- Cognitive theories
  - Multisystem account (Engelkamp)
    - Pedagogical implication

| Amount of Vocabulary	No requirement
Activity & Example	Musical vocabulary chair （音乐椅子） Charades （哑剧字谜） Fly paper airplanes （飞向目标） Magic Box (魔术箱) Rainbow character (彩虹字）

What Should We Do Differently?

- Cognitive theories
  - Competition theory(MacWhinney)
    - Overview

Word B

Word A

Word B

Sound, shape, meaning similar

MacWinney, B. (2001) The competition model: the input, the context, and the brain

What Should We Do Differently?

- Cognitive theories
  - Multisystem account (Engelkamp)
    - Example

Sound similar

Function similar
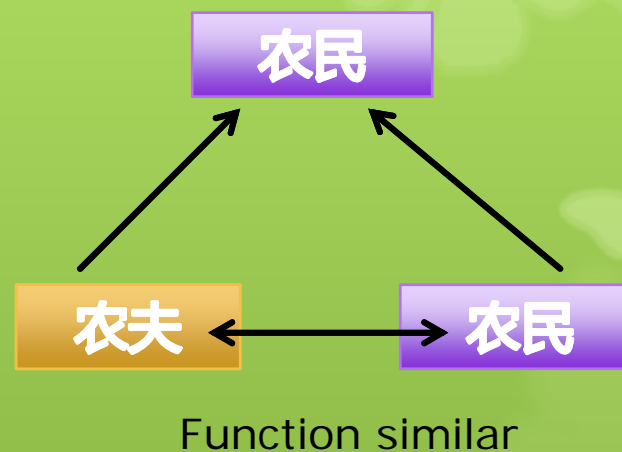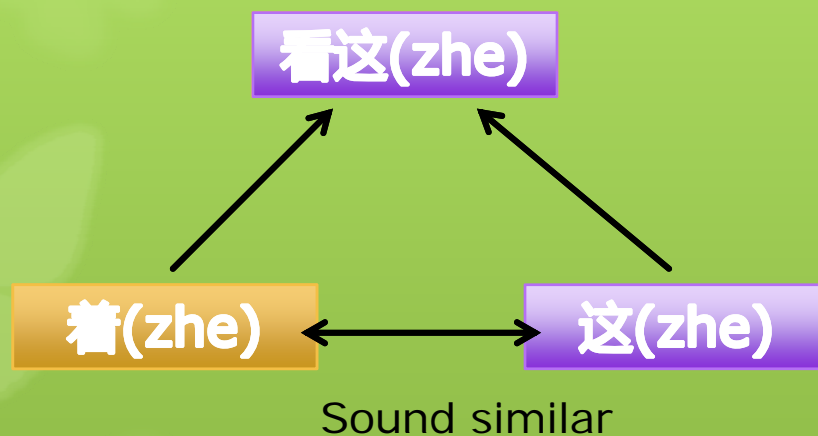
（一）圈一圈

1. 叔叔住在中巴鲁的（且　　粗　　(组)）屋区。

2. 这里附（欣　　(近)　　所）是不是有一间茶馆？

3. 妈妈煮了（(凉)　　谅　　良）茶给我们喝。

4. 你会（加　　(驾)　　架）汽车还是电单车？

5. 这（止　　此　　(些)）飞机模型是爷爷送给我的。

What Should We Do Differently?

- Cognitive theories
  - Competition theory(MacWhinney)
    - Pedagogical implication

| Amount of Vocabulary	Vocabulary <=500	Vocabulary > 500
Pedagogical implication	Utilize multiple codes for encoding	Pay attention to comparison and contrast Schedule systematic review

What Should We Do Differently?

- Cognitive theories
  - Competition theory(MacWhinney)
    - Pedagogical implication

Amount of Vocabulary	Vocabulary <=500	Vocabulary > 500
Activity & Example	Find the right one (字形辨析) Compare the vocabulary (对比认字)	Correct the errors (找错误) Completing the character (找/写另一半)

What Should We Do Differently?

- Cognitive theories
  - Cognitive load theory (Sweller)
    - Overview
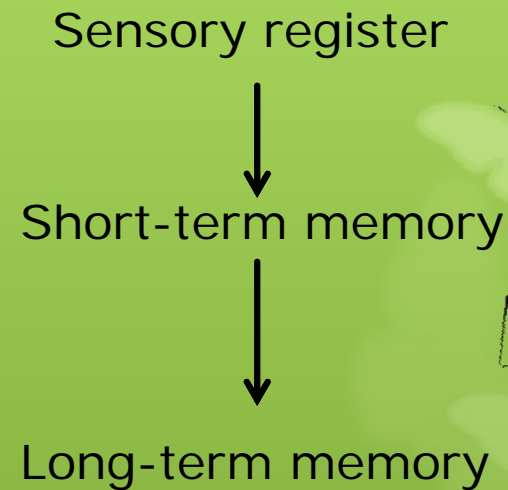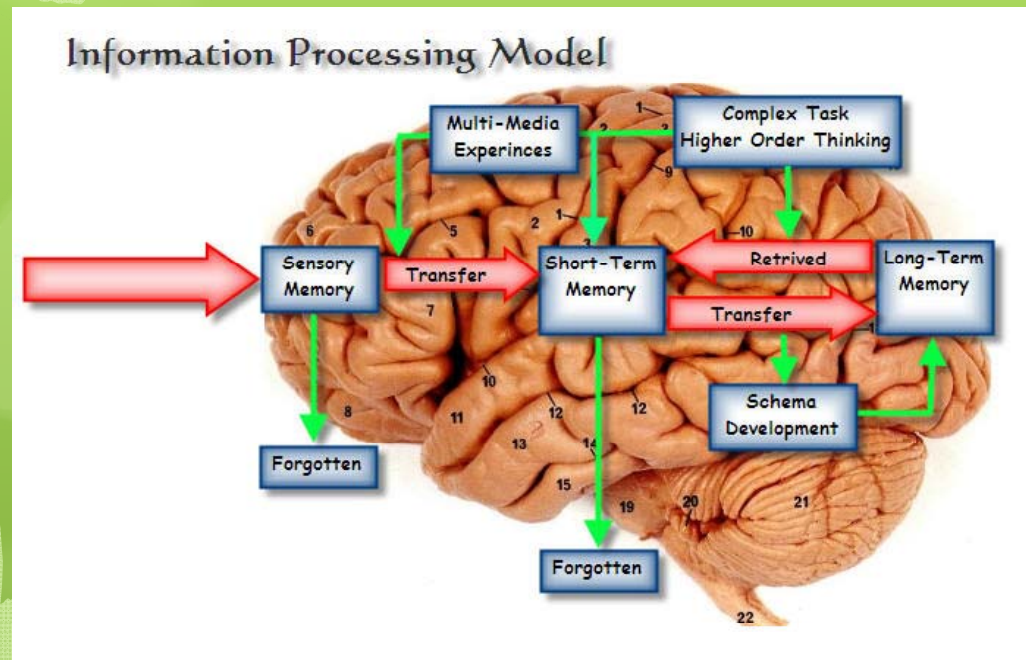
Sensory register

↓

Short-term memory

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Long-term memory

Sweller, J. (1998) Cognitive load during problem solving: Effects on learning

What Should We Do Differently?

- Cognitive theories
  - Cognitive load theory (Sweller)
    - Example

年糕	肉干	年货	舞龙舞狮
贺卡	桔子	红包	烟花

Sensory register

↓

Short-term memory

↓

Long-term memory

What Should We Do Differently?

- Cognitive theories
  - Cognitive load theory (Sweller)
    - Example

| 年糕 | 肉干 | 年货 | 舞龙舞狮 |

Sensory register

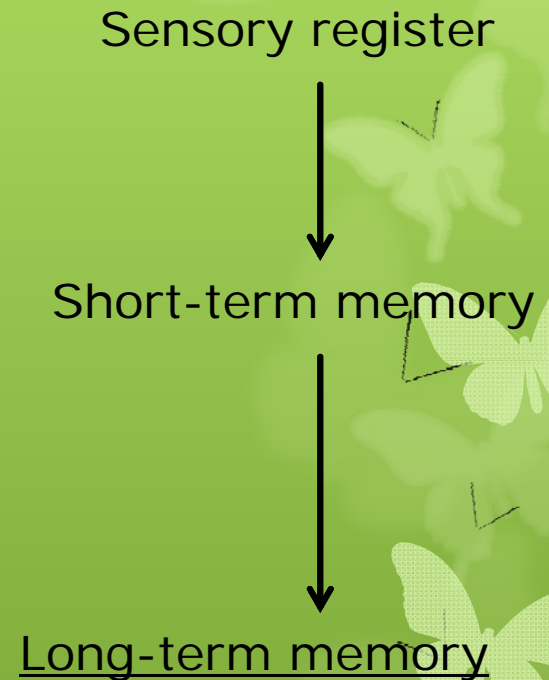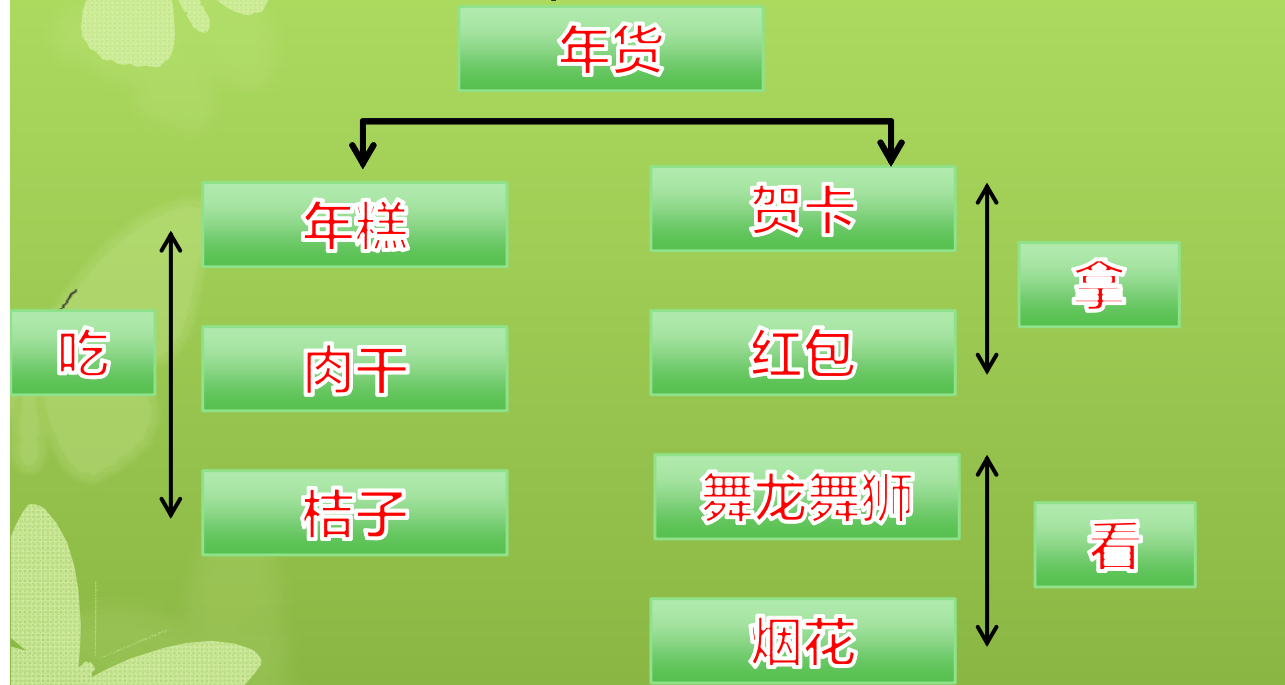| 贺卡 | 桔子 | 红包 | 烟花 |

Short-term memory

Long-term memory

What Should We Do Differently?

- Cognitive theories
  - Cognitive load theory (Sweller)
    - Example

年货

年糕
肉干
桔子

贺卡
红包

舞龙舞狮
烟花

吃

拿

看

Sensory register

Short-term memory

Long-term memory

请你用其中的5个词语写一个新年故事。

What Should We Do Differently?

- Cognitive theories
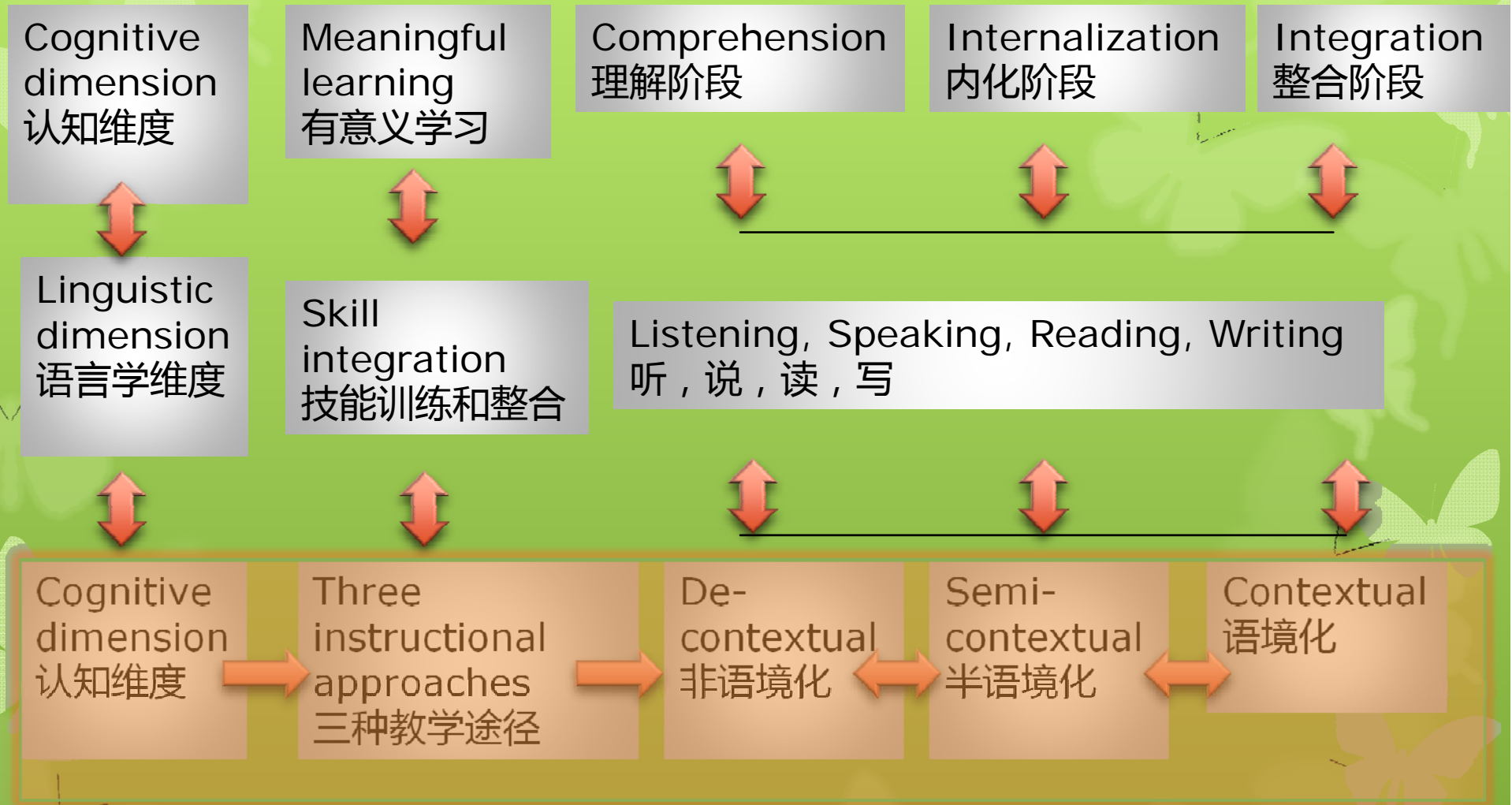 - Cognitive load theory (Sweller)
    - Pedagogical implication

Amount of Vocabulary	Vocabulary <=500	Vocabulary >500
Pedagogical implication	Sensory register Short-term memory *Long-term memory Give appropriate learning material to students (intrinsic cognitive load). Control the appropriate extraneous load. Comprehensible input.	Sensory register Short-term memory Long-term memory Identify big idea, enduring understanding, and essential questions. Plan lessons and use well-designed instructional procedures and meaningful activties.

What Should We Do Differently?

- Cognitive theories
  - Cognitive load theory (Sweller)
    - Pedagogical implication

Amount of Vocabulary	Vocabulary <=500	Vocabulary >500
Activities & Examples	TPR TPRS (借助语境理解词语)	Graphic Organizer (图表)

A Framework for Chinese Vocabulary Learning

| Cognitive dimension 认知维度 | Meaningful learning 有意义学习 | Comprehension 理解阶段 | Internalization 内化阶段 | Integration 整合阶段 |

| Linguistic dimension 语言学维度 | Skill integration 技能训练和整合 | Listening, Speaking, Reading, Writing 听，说，读，写 |

| Cognitive dimension 认知维度 | Three instructional approaches 三种教学途径 | De-contextual 非语境化 | Semi-contextual 半语境化 | Contextual 语境化 |

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Thanks for your time!
Any questions? ☺