Meaningful and Effective Chinese Vocabulary Learning

Peng, Ping
Zhao, Jing
Why Is Vocabulary Learning Important?

- Meanings
- Pattern
- Orthographic knowledge
- Pronounce

Vocabulary

- Facilitates Reading
- informs Culture
- reflects
- indicates Oral Language
- strengthen Uses
- decides
- organizes
- Exercises Writing

Grammar
Why Is Chinese Vocabulary Learning Important?

- Cognitive process

The cognitive process for English vocabulary learning


The cognitive process for Chinese vocabulary learning
What Should We Do Differently?

- Cognitive model of five-stage word acquisition

1. **Perception**
   - Emphasizing attractive and well spaced word presentation

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

3. **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

4. **Internalization**
   - Providing various meaningful and contextual-based activities for practicing

5. **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
Complexity of the graphic configuration.
The number of strokes in a given character can vary from one to 36.
The linguistic features of Chinese Script

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

People all say (that) he is (a) 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**

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

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

What Should We Do Differently?

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

- Associative meaning
- Referential meaning
- Representational meaning
What Should We Do Differently?
• Cognitive theories
  ▪ Dual Coding Theory (A. Paivio)
    ○ Pedagogical implication

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<tr>
<th>Amount of Vocabulary</th>
<th>Vocabulary $&lt;=$500</th>
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<tbody>
<tr>
<td>Pedagogical implication</td>
<td>Representational meaning</td>
<td>Referential meaning</td>
</tr>
<tr>
<td></td>
<td>Referential meaning Teachers should show</td>
<td>Associative meaning Teachers should help</td>
</tr>
<tr>
<td></td>
<td>students both words with their corresponding pictures.</td>
<td>students activate prior knowledge.</td>
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<tr>
<td>Activities &amp; Examples</td>
<td>Picture Teller (看图解字) Memory Matching (记忆配对) Find the Difference (找异类词)</td>
<td>Words in the character (字中字) Vocabulary tree (集思广益) Seeing Relations (部分与全体)</td>
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</tbody>
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What Should We Do Differently?
• Cognitive theories
  ▪ Level-of-processing theory (Craik & Lockhart)
    ○ Overview

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

- Shallow lever
- Intermediate 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
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<td>Pedagogical implication</td>
<td>Provide etymological and orthographic information for new characters.</td>
<td>Increase elaboration and effort level of encoding.</td>
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<td>Activity &amp; Example</td>
<td>Connections (大有关系)</td>
<td>Sense the difference (另类异项)</td>
</tr>
<tr>
<td></td>
<td>Find a Partner (找伙伴)</td>
<td>Illustration of Differing Meanings (画图释义)</td>
</tr>
<tr>
<td></td>
<td>Sentence Pyramid (金字塔造句)</td>
<td>Palingram (倒顺词/回文)</td>
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<tr>
<td></td>
<td></td>
<td>Task based vocabulary instruction (词语串讲)</td>
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What Should We Do Differently?

• Cognitive theories
  - Multisystem account (Engelkamp)
  - Overview

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

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<th>Amount of Vocabulary</th>
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<td>Pedagogical implication</td>
<td>Songs, rhymes, chants, and musical activities</td>
</tr>
<tr>
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<td>Games—a natural way</td>
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<td>Activity &amp; Example</td>
<td>Musical vocabulary chair (音乐椅子)</td>
</tr>
<tr>
<td></td>
<td>Charades (哑剧字谜)</td>
</tr>
<tr>
<td></td>
<td>Fly paper airplanes (飞向目标)</td>
</tr>
<tr>
<td></td>
<td>Magic Box (魔术箱)</td>
</tr>
<tr>
<td></td>
<td>Rainbow character (彩虹字)</td>
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What Should We Do Differently?

• Cognitive theories
  ▪ Competition theory (MacWhinney)
    ○ Overview

MacWhinney, B. (2001) The competition model: the input, the context, and the brain
What Should We Do Differently?
• Cognitive theories
  ▪ Multisystem account (Engelkamp)
    ◦ Example

看这(zhe) —— 声音相似
着(zhe) —— 这(zhe)  —— 功能相似

农民  —— 声音相似
农夫 —— 农民  —— 功能相似
(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)汽车还是电单车？

5. 这(止此些)飞机模型是爷爷送给我的。
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<tr>
<td>Pedagogical implication</td>
<td>Utilize multiple codes for encoding</td>
<td>Pay attention to comparison and contrast Schedule systematic review</td>
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| 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

What Should We Do Differently?

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

Sensory register

Short-term memory

Long-term memory
What Should We Do Differently?

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

Sensory register → Short-term memory → Long-term memory
What Should We Do Differently?

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

Cognitive Load Theory (Sweller) Example

Sensory register

Short-term memory

Long-term memory

请你用其中的5个词语写一个新年的故事。
What Should We Do Differently?
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  ▪ Cognitive load theory (Sweller)
    ◦ Pedagogical implication

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<td>Short-term memory</td>
</tr>
<tr>
<td></td>
<td>*Long-term memory</td>
<td>Long-term memory</td>
</tr>
<tr>
<td></td>
<td>Give appropriate learning</td>
<td>Identify big idea, enduring understanding, and essential questions.</td>
</tr>
<tr>
<td></td>
<td>Give material to students (intrinsic cognitive load). Control the appropriate extraneous load. Comprehensible input.</td>
<td>Plan lessons and use well-designed instructional procedures and meaningful activities.</td>
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<td>Activities &amp; Examples</td>
<td>TPR</td>
<td>Graphic Organizer (图表)</td>
</tr>
<tr>
<td></td>
<td>TPRS (借助语境理解词语)</td>
<td></td>
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A Framework for Chinese Vocabulary Learning

**Cognitive dimension**
- Meaningful learning (有意义学习)
- Comprehension (理解阶段)
- Internalization (内化阶段)
- Integration (整合阶段)

**Linguistic dimension**
- Skill integration (技能训练和整合)
- Listening, Speaking, Reading, Writing (听, 说, 读, 写)

**Three instructional approaches**
- De-contextual (非语境化)
- Semi-contextual (半语境化)
- Contextual (语境化)

Helen H. Shen (2011) Teaching Chinese as a Second Language: Vocabulary Acquisition and Instruction
Thanks for your time!
Any questions? 😊