How to Teach *zai* Constructions in CFL Settings: Evidence from a SLA Study

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Introduction

1. CFL learner’s acquisition of locative *zai* construction;
2. Content analysis of the *zai* construction in the textbook;
3. Proposal for teaching the *zai* construction

Limitations:
- pilot study -- exploratory in nature
- Limited generalizability
1. How does the learner acquire the locative *zai* construction?

2. Do relationships exist between textbook input and the learner’s output?

3. What are the pedagogical implications?
• grammatical description & discussion; importance of locative preposition *zai* in Chinese grammar *(Li & Thompson, 1981; Fang, 1998; Norman, 1988)*

• **CFL learners’ difficulty in grasping the structure** *(Fang, 1998)*

• **one empirical study on the acquisition of the *zai* construction** *(Li, 1993)*

  - the subjects of Li’s study: 99 Ns in Beijing
the zai construction

- the structure of the locative phrase zai construction
  (Li & Thompson, 1981; Norman, 1988)
  
  \[zai\ \NP - (\text{locative particle})\]

- simple localizer: bound morphemes suffixed to nouns

- complex localizer: several elements suffixed to a bound localizer
  \[\rightarrow \text{complex locative particle/localizer}\]

- the position of the locative phrase in the sentence:
  
  a. \((zai)\ \NP- (\text{locative Particle})\ \Verb\ \ [\text{preverbal zai}]\)
  
  b. \(\Verb\ \(zai\)\ \NP – (\text{locative particle})\ \ [\text{postverbal zai}]\)
Subject: CHN 102 CFL learner (second semester)

Data Collection
- six bi-monthly interviews (3 months)
- elicitation tasks included
  - casual conversations
  - movie, picture and action descriptions
  - sentence combination & judgment tasks

Data Analysis
- number of tokens, types of tokens, 
  & TLU
- acquisition sequence
• Results

- Phase I (Interview 1~3)
  - low production of the *zai* construction
  - pre-verbal *zai* & post-verbal *zai* equally productive & frequent
  - inconsistent placement of *zai*

- Phase II (Interview 4)
  - pre- and post-verbal *zai* used more frequently, accurately & productively
  - pre-verbal *zai* usage exceeds post-verbal *zai*

- Phase III (Interview 5 & 6)
  - the emergence of complex *zai* constructions
  - awareness of the different positions of *zai* construction in a sentence
## Numbers of tokens elicited in the Interviews

<table>
<thead>
<tr>
<th>Numbers of tokens/zai construction</th>
<th>Pre-verbal Zai</th>
<th>Post-verbal Zai</th>
<th>Zai + NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numbers of tokens</td>
<td>Pre-verbal Zai</td>
<td>Post-verbal Zai</td>
<td>Zai + NP</td>
</tr>
<tr>
<td><strong>Phase I</strong></td>
<td>verb zai</td>
<td>Locative prep. zai</td>
<td></td>
</tr>
<tr>
<td>Numbers of tokens</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>TLU</td>
<td>100%</td>
<td>60%</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Phase II</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numbers of tokens</td>
<td>11</td>
<td>46</td>
<td>13</td>
</tr>
<tr>
<td>TLU</td>
<td>100%</td>
<td>80.4%</td>
<td>47.6%</td>
</tr>
<tr>
<td><strong>Phase III</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numbers of tokens</td>
<td>15</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>TLU</td>
<td>100%</td>
<td>75%</td>
<td>18.2%</td>
</tr>
</tbody>
</table>
## Types of tokens in the Interviews

<table>
<thead>
<tr>
<th>Types of tokens</th>
<th>Pre-verbal Zai</th>
<th>Locative prep. Zai</th>
<th>Post-verbal Zai</th>
<th>Zai + NP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase I</strong></td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>/</td>
</tr>
<tr>
<td><strong>Phase II</strong></td>
<td>1</td>
<td>27</td>
<td>7</td>
<td>/</td>
</tr>
<tr>
<td><strong>Phase III</strong></td>
<td>1</td>
<td>10</td>
<td>7</td>
<td>/</td>
</tr>
</tbody>
</table>
Learner’s Pre-verbal "zai" Production

Data

- Numbers of Tokens
- Types of Tokens
Learner’s Post-verbal *zai* Production

Data

- **Numbers of Postverbal *zai***
- **Types of Postverbal *zai***

<table>
<thead>
<tr>
<th>Interview #</th>
<th>Numbers of Postverbal <em>zai</em></th>
<th>Types of Postverbal <em>zai</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ~ 3</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

11
TLU % of the learner’s zai construction

Data
How the learner’s express complex zai :

* 他 旁邊 他家 看書。
   Ta  Øpangbian ta jia  kanshu.
   ‘He reads books nearby his house.’

* 她 床上 跪着。
   ta  chuang shang  gui zhe.
   ‘She is on her knees in bed.’

* 他 在 他的 客廳 上， 坐 他 椅子 上 看雜誌。
   Ta  zai ta-de ke-ting shang, zuo  ta deng-zi shang  kan za-zhi.
   ‘He is sitting on his chair in his living-room, reading a magazine.’

* 他們 可能 站 三個 男人 上。
   Ta-men ke-neng zhan  san-ge nan-ren shang.
   ‘They may stand on top of three men.’
你上書?書上，放你的眼鏡。
Ni Õ shang shu? Õ shu shang, fang ni de yangjing.
‘You put your glasses on the book, book on.’

你放Video在架子上。
Ni fang Video zai jiazi shang.
You put Video on shelf top.
‘You put the video on the shelf.

他放盤子上一個龍蝦。
Ø Panzi shang? ta fang Ø panzi shang yige longxia.
Plate on? he put plate on one-CL lobster.
‘He puts one lobster on the plate.’

一個高人在網裡放球。
Yige gaoren zai wangli fang qiu.
One-CL tall man in net inside put ball.
‘A tall man put the ball into the net.’

他們在郵筒裡放些信。
Tamen zai youtong-li fang xie xin.
They in pillar-box inside put several letter.
‘They put several letters into the pillar-box.’
Content Analysis of the Textbook

- **Material**
  
  *Interactions I & II: A cognitive Approach to Beginning Chinese* (Yan & Liu, 1997)

- **Data Collection & Analysis**
  
  - the number of tokens
  - the type of tokens
  - frequency & position in a sentence

- **Result**
  
  - distribution bias of pre-verbal zai
    - salient output of pre-verbal zai in the learner’s interlanguage
  - co-occurrence of pre- and post-verbal zai (L9-14)
    - uncertainty of where to place the locative phrase in a sentence
### The zai constructions presented in *Interactions I* (Yan & Liu, 1997)

<table>
<thead>
<tr>
<th>Types of tokens</th>
<th>Pre-verbal zai</th>
<th>Post-verbal zai</th>
<th>zai + NP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>verb zai</td>
<td>locative zai</td>
<td></td>
</tr>
<tr>
<td>Numbers of tokens</td>
<td>43</td>
<td>23</td>
<td>8</td>
</tr>
<tr>
<td>Types of tokens</td>
<td>7</td>
<td>13</td>
<td>5</td>
</tr>
</tbody>
</table>

### The zai constructions presented in *Interactions II* (Yan & Liu, 1997)

<table>
<thead>
<tr>
<th>Types of tokens</th>
<th>Pre-verbal zai</th>
<th>Post-verbal zai</th>
<th>zai + NP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>verb zai</td>
<td>locative zai</td>
<td></td>
</tr>
<tr>
<td>Numbers of tokens</td>
<td>23</td>
<td>25</td>
<td>39</td>
</tr>
<tr>
<td>Types of tokens</td>
<td>8</td>
<td>18</td>
<td>11</td>
</tr>
</tbody>
</table>
Complex zai constructions in *Interactions I & II*

<table>
<thead>
<tr>
<th>The Complex zai constructions</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>在...上 zai...shang on/ on top of...</td>
<td>21</td>
</tr>
<tr>
<td>在...門口 zai...menkou at the gate of...</td>
<td>6</td>
</tr>
<tr>
<td>在...裡/裡頭 zai...li/ litou in/ inside...</td>
<td>3</td>
</tr>
<tr>
<td>在...內 zai ...nei in/ inside...</td>
<td>3</td>
</tr>
<tr>
<td>在...面前 zai ...mianqian in front of...</td>
<td>3</td>
</tr>
</tbody>
</table>
Pedagogical Implications

- Introduce pre-verbal locative *zai* by associating it with different verbs:
  - 睡覺 *shui-jiao* ‘sleep’
  - 打球 *da-qiu* ‘play ball’
  - 學中文 *xue zhong-wen* ‘study Chinese’

- Locative particle needs to be taught & practiced as a formula:
  - 在桌子 *zai zhuo-zi shang* ‘on the table’
  - 在我家旁邊 *zai wo jia pang-bian* ‘near my house’

- Introduce post-verbal *zai* by associating it with different verbs:
  - 放 *fang* ‘put, place’
  - 种 *zhong* ‘plant’
  - 畫 *hua* ‘draw, paint’
  - 寫 *xie* ‘write’

- Stress that verb meaning influences the position of the *zai* construction.


**Locative Particles:** following the NP to specify a spatial relationship

<table>
<thead>
<tr>
<th>Location</th>
<th>Chinese Characters</th>
<th>Pinyin</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>上/上邊/上面/上頭</td>
<td>shang/shang-bian/shang-mian/shang-tou</td>
<td>‘on top of, above’</td>
<td></td>
</tr>
<tr>
<td>下/底下/下邊/下面/下頭</td>
<td>xia/ di-xia/xia-bian/xia-mian/xia-tou</td>
<td>‘under, below’</td>
<td></td>
</tr>
<tr>
<td>裡/裡邊/裡面/裡頭</td>
<td>li/ li-bian/ li-mian / li-tou</td>
<td>‘in, inside’</td>
<td></td>
</tr>
<tr>
<td>外/外邊/外面/外頭</td>
<td>wai/ wai-bian / wai-mian / wai-tou</td>
<td>‘outside’</td>
<td></td>
</tr>
<tr>
<td>前/前邊/前面/前頭</td>
<td>qian/ qian-bian / qian-mian / qian-tou</td>
<td>‘in front of’</td>
<td></td>
</tr>
<tr>
<td>後/後邊/後面/後頭</td>
<td>hou/ hou-bian/ hou-mian / hou-tou</td>
<td>‘in back of, behind’</td>
<td></td>
</tr>
<tr>
<td>旁/旁邊</td>
<td>pang/ pang-bian</td>
<td>‘beside’</td>
<td></td>
</tr>
<tr>
<td>中間/當中</td>
<td>zhong-jian/ dang-zhong</td>
<td>‘in the center of’</td>
<td></td>
</tr>
<tr>
<td>左邊/左面</td>
<td>zuo-bian / zuo-mian</td>
<td>‘left of’</td>
<td></td>
</tr>
<tr>
<td>右邊/右面</td>
<td>you-bian / you-mian</td>
<td>‘right of’</td>
<td></td>
</tr>
<tr>
<td>東部/東邊</td>
<td>dong-bu / dong-bian</td>
<td>‘east of’</td>
<td></td>
</tr>
<tr>
<td>南部/南邊</td>
<td>nan-bu / nan-bian</td>
<td>‘south of’</td>
<td></td>
</tr>
<tr>
<td>西部/西邊</td>
<td>xi-bu / xi-bian</td>
<td>‘west of’</td>
<td></td>
</tr>
<tr>
<td>北部/北邊</td>
<td>bei-bu /bei-bian</td>
<td>‘north of’</td>
<td></td>
</tr>
<tr>
<td>這兒/這裡</td>
<td>zhe-er/ zhe-li</td>
<td>‘this side of’</td>
<td></td>
</tr>
<tr>
<td>那兒/那裡</td>
<td>na-er/ na-li</td>
<td>‘that side of’</td>
<td></td>
</tr>
</tbody>
</table>
1. Preverbal Locative Phrases [adverbial 壮语‘zhuang-yu’]:
- any verb naming an event or state that can occur at some location can take a preverbal locative phrase specifying the general location at which that event or state occurs.

2. Postverbal Locative Phrases [complement 补语 ‘bu-yu’]:
- only few verbs allow it;
- immediately following the verb [the ba structure] or [verb reduplication]

3. the meaning of the verb determines whether the locative phrase occurs before or after the verb.

A. **Verbs of Displacement**

<table>
<thead>
<tr>
<th>Chinese</th>
<th>Pinyin</th>
</tr>
</thead>
<tbody>
<tr>
<td>跳  tiao</td>
<td>‘jump’</td>
</tr>
<tr>
<td>扔  reng</td>
<td>‘toss’</td>
</tr>
<tr>
<td>推  tui</td>
<td>‘push’</td>
</tr>
<tr>
<td>掉  diao</td>
<td>‘drop, fall’</td>
</tr>
<tr>
<td>灌  sa</td>
<td>‘sprinkle’</td>
</tr>
<tr>
<td>摔  shuai</td>
<td>‘fall, trip’</td>
</tr>
<tr>
<td>倒  dao</td>
<td>‘fall’</td>
</tr>
<tr>
<td>下  xia</td>
<td>‘drop’</td>
</tr>
<tr>
<td>跌  die</td>
<td>‘fall’</td>
</tr>
<tr>
<td>流  liu</td>
<td>‘flow’</td>
</tr>
<tr>
<td>爬  pa</td>
<td>‘crawl’</td>
</tr>
<tr>
<td>抹  mo</td>
<td>‘spread, smear’</td>
</tr>
</tbody>
</table>
B. Verbs of Posture

站 zhan ‘stand’
睡 shui ‘sleep’
趴 pa ‘crouch’
蹲 dun ‘squat’
浮 fu ‘float’
停 ting ‘stop’

坐 zuo ‘sit’
躺 tang ‘lie down’
跪 gui ‘kneel’
依/靠 yi/ kao ‘lean on’
住 zhu ‘have residence’
漂 piao ‘float’

C. Verbs of Appearing

發生 fa-sheng ‘happen, occur’
出現 chu-xian ‘appear’
（出）生 (chu)-sheng ‘be born’
生長 sheng-zhang ‘grow up’

長大 zhang-da ‘grow up’
產生 chan-sheng ‘occur’
死 si ‘die’
消失 xiao-shi ‘disappear’

D. Verbs of Placement

放 fang ‘put, place’
种 zhong ‘plant’
畫 hua ‘draw, paint’
吐 tu ‘expectorate’
刻 ke ‘carve, sculpt’
撤 sa ‘spill’

藏 cang ‘hide’
寫 xie ‘write’
抄 chao ‘copy’
印 yin ‘print’
建立 jian-li ‘establish’
Elicitation tasks