Teaching ASL Fingerspelling to Second-Language Learners: Explicit Versus Implicit Training

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fast | like-handshapes | sequential | highly coarticulated
Fingerspelling comprehension

Deaf/Skilled Signers
- Perceive fingerspelled words as a whole (Hanson 1981)
- Make use of transition segments to identify masked letters (Schwarz, 2000)

Hearing adult learners
- Heavy reliance on hold portion of signal (Geer & Keane, 2014)
- Poor(er) performance with non-default orientation (Keane & Geer, 2016)
Cue re-weighting through explicit phonetic instruction

- Skilled signers and ASL students appear to use different strategies for fingerspelling comprehension.
- L2 learners can be taught to re-weight cues to segment identification (Ylinen et al., 2010, Giannakopoulou et al., 2013).
- Explicit instruction has been shown to be effective in L2 learning (Norris & Ortega, 2000, Saito, 2007; 2011).
Explicit vs Implicit Instruction

**Implicit training:** Modeling this type of fingerspelling

**Explicit training:** Explaining why the same letter is produced two different ways in the same word
Explicit training

• Teaches students about
  1. The structure of fingerspelling: **hold** versus **transition** segments
Explicit training

• Teaches students about
  1. The structure of fingerspelling: **hold** versus **transition** segments
  2. Frequently found phonetic variation
Implicit training

• Teaches students about
  1. Prescriptively correct manual letter formation
**Implicit training**

- Teaches students about
  1. Prescriptively correct manual letter formation
  2. Prescriptively correct production of double letters
Implicit training

• Teaches students about
  1. Prescriptively correct manual letter formation
  2. Prescriptively correct production of double letters

In short, re-teaches fingerspelling how students learned it the first time following the curriculum they use (Smith et al., 2008)
Trainings compared: -UR-

Implicit training: “Here are some fingerspelled words.”
Trainings compared: -UR-

Explicit training:
Explains how these letters combine
Trainings compared: - Y -

Implicit training: “Here are some fingerspelled words.”
Trainings compared: - Y -

Explicit training:
Explain distribution of two forms
Trainings compared: -GHT-

Implicit training:
“Here are some fingerspelled words.”
Trainings compared: -GHT-

Explicit training: Explain how these letters combine
## Trainings compared

<table>
<thead>
<tr>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>39 total slides</td>
<td>39 total slides</td>
</tr>
<tr>
<td>(including some of the exact same slides)</td>
<td></td>
</tr>
<tr>
<td>Videos and still images with text explanation of different linguistic features</td>
<td>(the same) videos and still images</td>
</tr>
<tr>
<td>Opportunities to check comprehension skills</td>
<td>Opportunities to check comprehension skills</td>
</tr>
</tbody>
</table>
The pilot study

<table>
<thead>
<tr>
<th>18 ASL 3 students in summer school</th>
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<tbody>
<tr>
<td>Pre-test, training, post-test</td>
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<tr>
<td>Time separating events: 1 week</td>
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<tr>
<td>Assignment in explicit or implicit training group: Balanced using ASL 2 grade</td>
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</tbody>
</table>
The pilot study
The pilot study: Unanswered/raised questions

1. Why don’t students improve more on the transitions-only condition?
2. How long do the effects of the training last?
3. Does palm orientation impact performance?
<table>
<thead>
<tr>
<th><strong>Full study</strong></th>
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<tbody>
<tr>
<td>80 ASL 3 students in fall semester</td>
</tr>
<tr>
<td>Pre-test, training, post-test 1, post-test 2</td>
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<tr>
<td>Time separating events: 3 weeks</td>
</tr>
<tr>
<td>Assignment in explicit or implicit training group: Balanced using ASL 2 grade</td>
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</table>
Full study: Default orientation
Full study: Default orientation
Unofficial debrief

Implicit training
• Students shocked they didn’t improve; they felt more confident about post-test

Explicit training
• Students more confident about post-test; not surprised they’d improved
Unofficial debrief

Implicit training
• “Provided a comprehensive review of fingerspelling production”

Explicit training
• “Helped me to understand fingerspelling as cursive”

This Way or This Way?
## Three approaches

<table>
<thead>
<tr>
<th>Good modeling</th>
<th>Additional description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>Prescriptively based. Might conflict with what is modeled.</td>
</tr>
<tr>
<td>2</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>∅</td>
</tr>
<tr>
<td>3</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>Descriptively based. Reflects linguistic analysis; consistent with modeling</td>
</tr>
</tbody>
</table>
Thank you!