Development of Explicit Versus Implicit Phonetic Training for Adult-learners of ASL

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SACRAMENTO STATE

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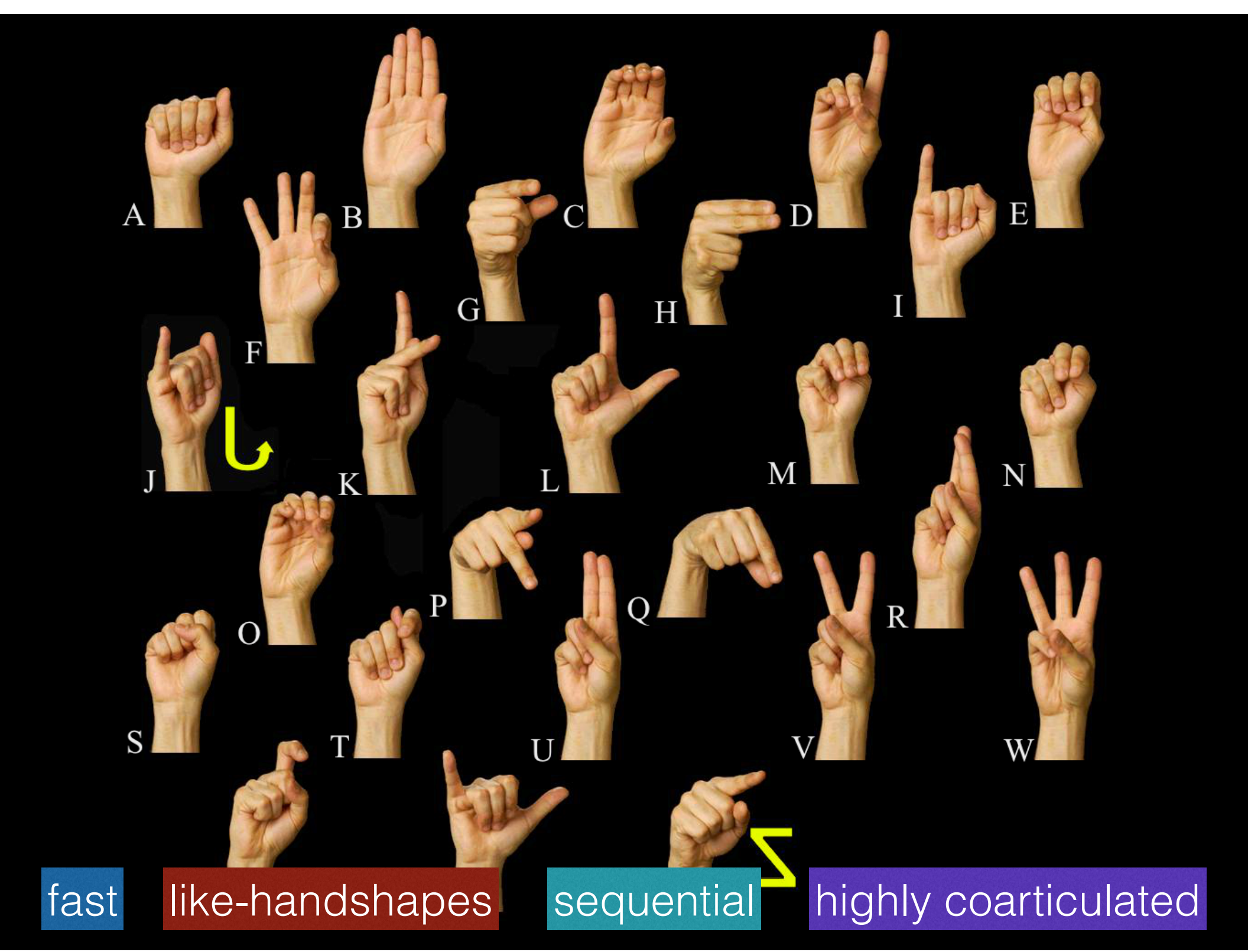
The Chemistry of Conversation


A
B
C
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T
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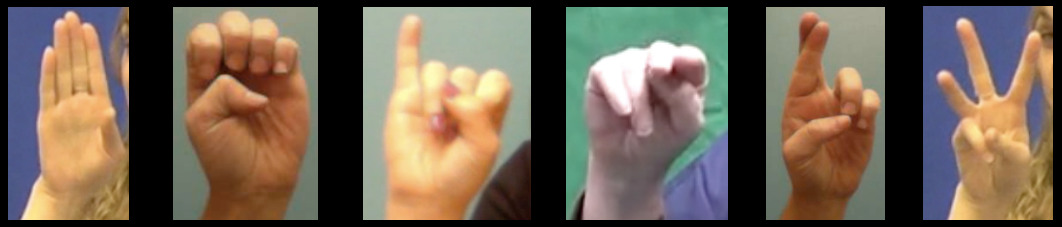
V
W
fast
like-handshapes
sequential
highly coarticulated

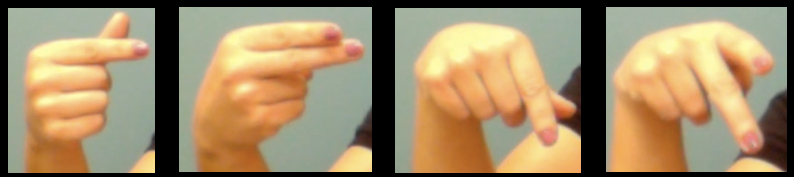
Background

- Older work on Deaf adults' fingerspelling comprehension
  - Hanson (1981)
  - Schwarz (2000)

Background

- More recent studies of student fingerspelling comprehension
  - Geer & Keane (2014)
  - Keane & Geer (2016)





This project

- Fingerspelling is a hard skill.
- Students and skilled signers seem to have different approaches (conscious or not) for reading fingerspelling.
- Can students be trained to **read fingerspelling differently** (i.e., more like skilled signers)?

Fingerspelling Musical Chairs

Synthesizing

Finding / Observation	Suggestion
Skilled signers see finger spelled words as wholes	Teach students to read fingerspelling more like skilled signers
Students rely heavily on hold portions (even more than contextual cues)	
Students improved fingerspelling comprehension after not-highly scientific musical chairs re-cap training	Design an actually scientific training

Synthesizing

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Precedent for cue-re-weighting in L2 teaching and explicit versus implicit training

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

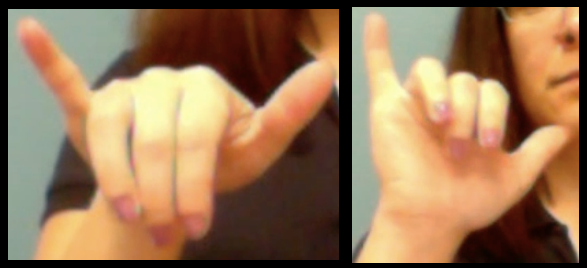
-S- S-O -O- O-R -R- R-T -T-

Explicit training

- Teaches students about

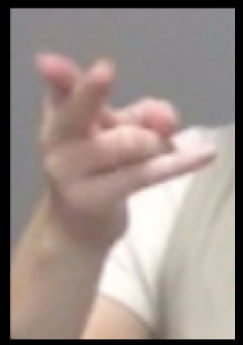
1. The structure of fingerspelling: hold versus transition segments

2. Frequently found phonetic variation

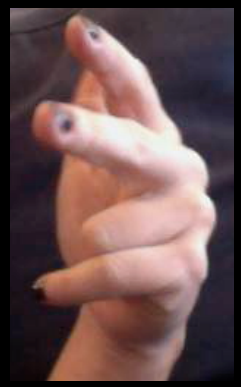


-Y-

-E-



U-R



G-H-T

Implicit training

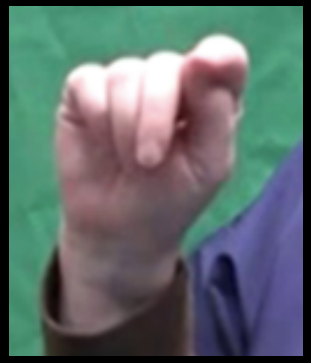
- Teaches students about
  - Prescriptively correct manual letter formation

Implicit training

Q

R

S



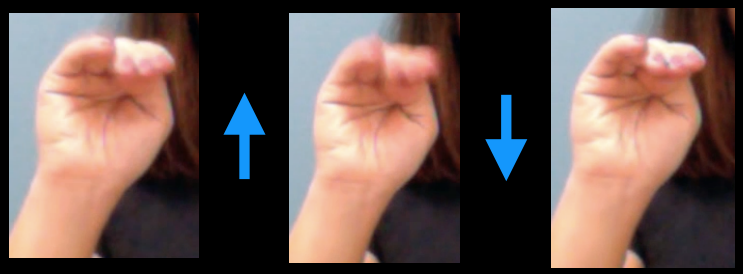
T

U

V

Implicit training

- Teaches students about
  - Prescriptively correct manual letter formation
  - Prescriptively correct production of double letters



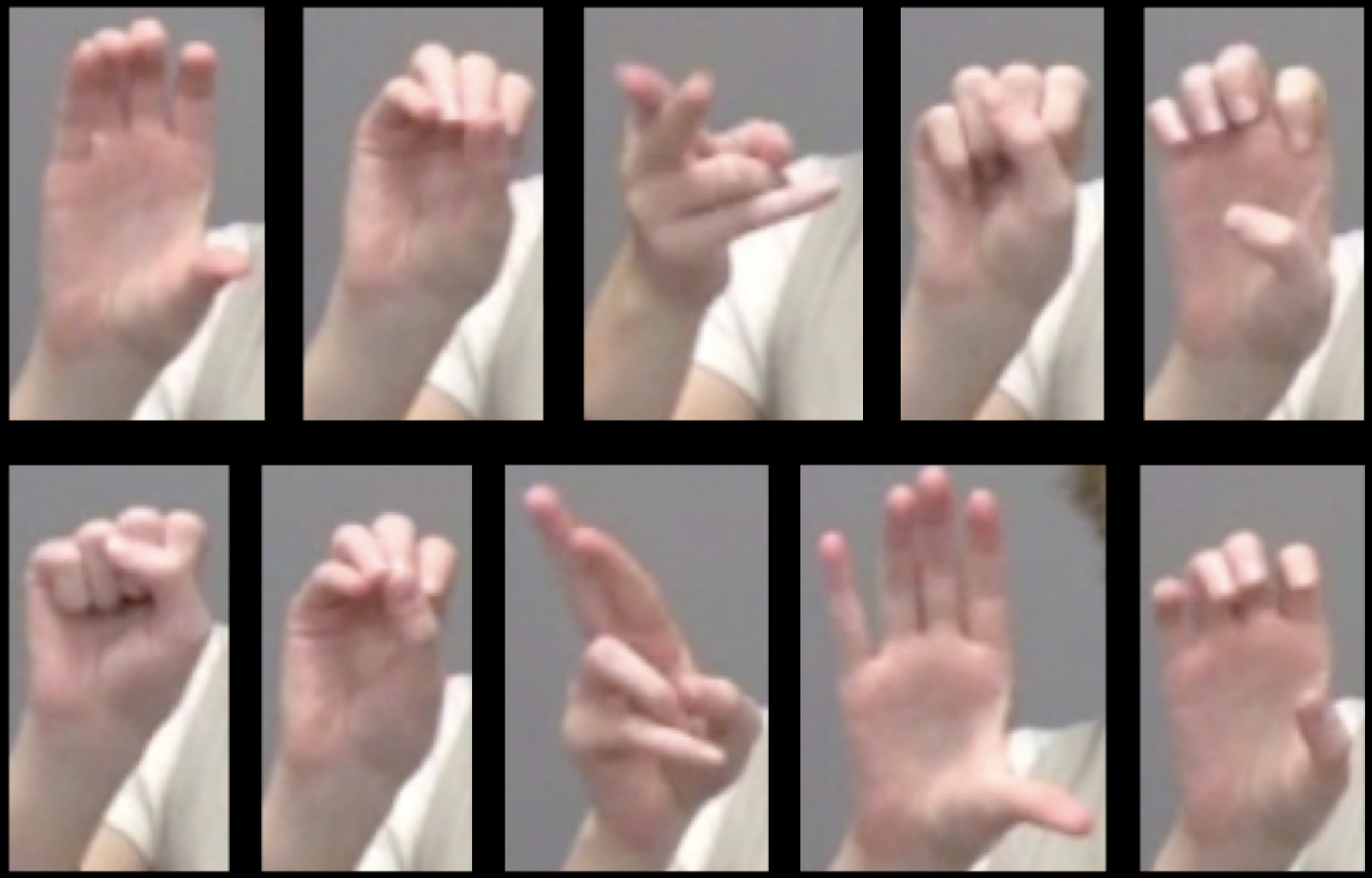
Implicit training

- Teaches students about
  - Prescriptively correct manual letter formation
  - 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).

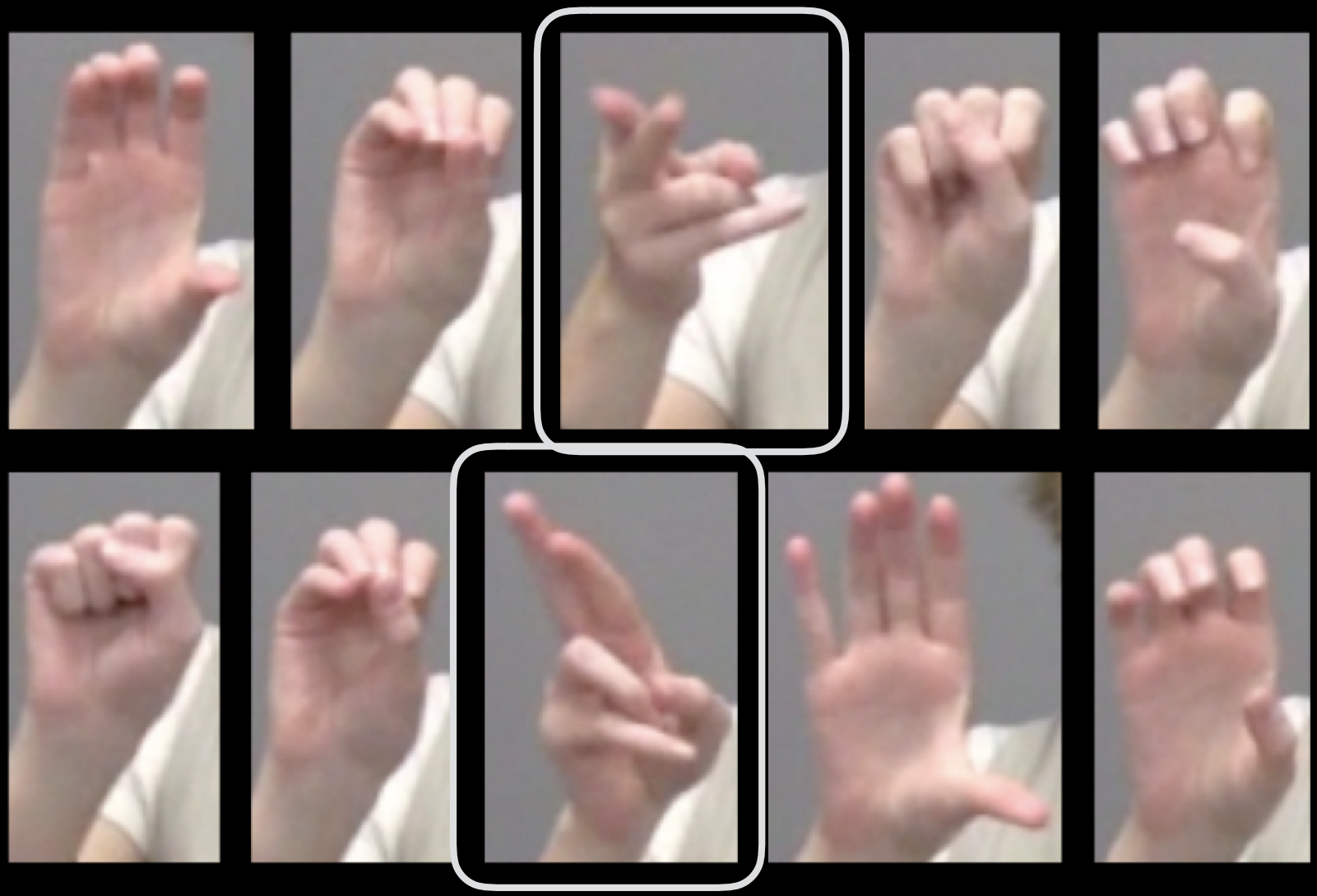
Trainings compared: -UR-

Implicit training: “Here are some fingerspelled words.”



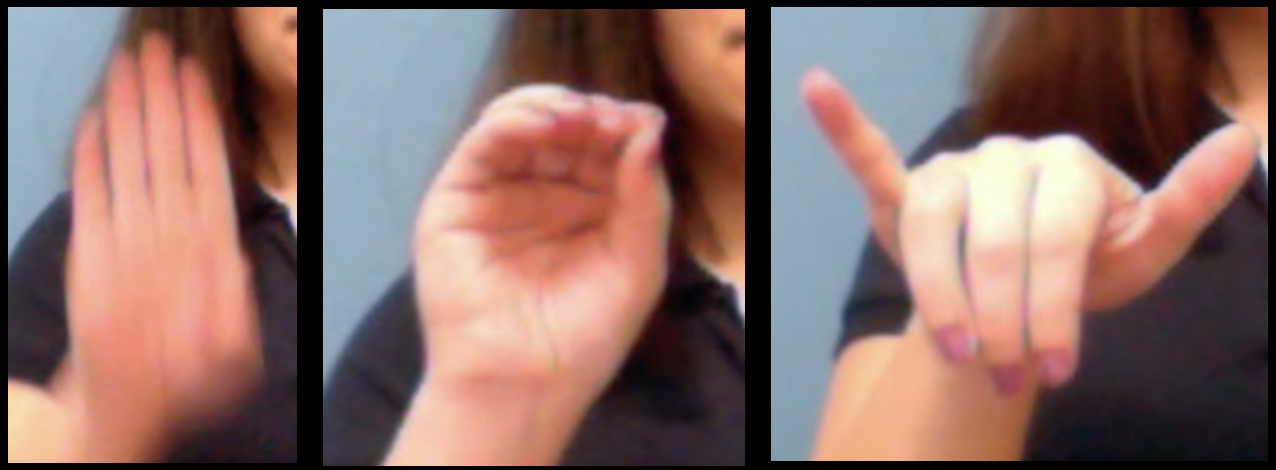
Trainings compared: -UR-

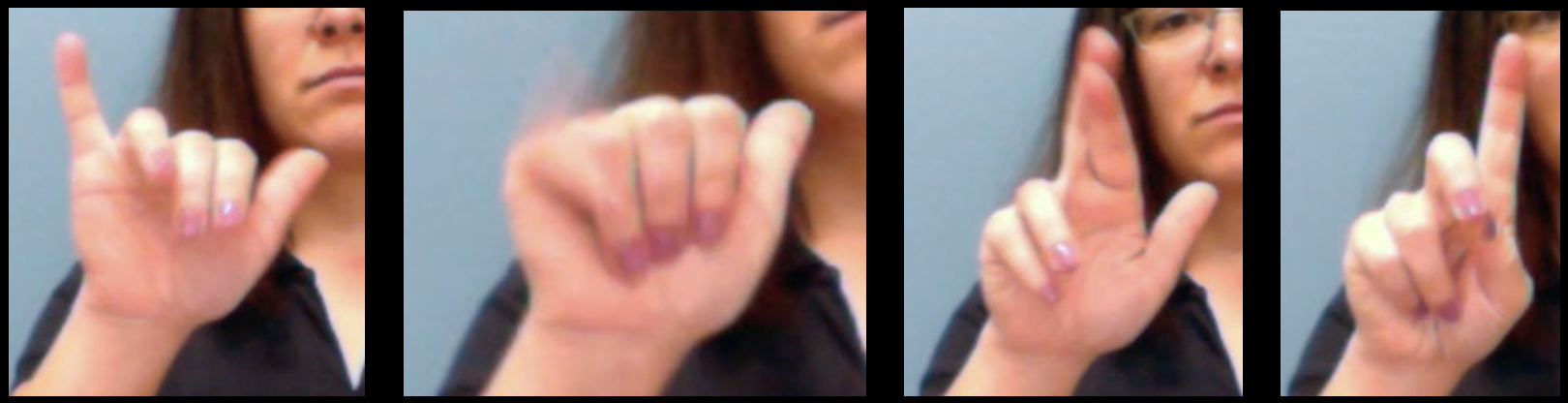
Explicit training: Explain how these letters combine



Trainings compared: -Y-

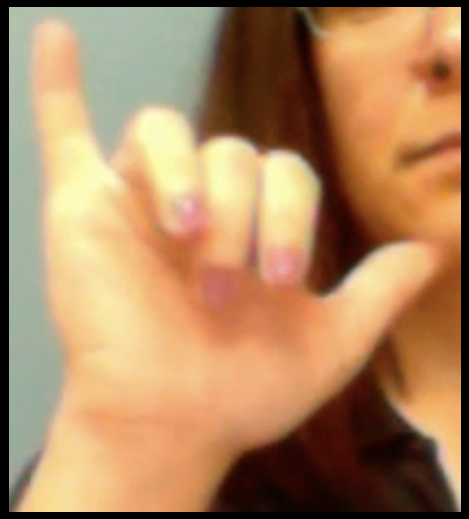
Implicit training: “Here are some fingerspelled words.”





Trainings compared: -Y-

Explicit training: Explain the distribution of the two forms of -Y-



Word-initial -Y-

Word-medial & word-final -Y-

Trainings compared: -E-

Implicit training: “Here are some fingerspelled words.”

Trainings compared: -E-

Explicit training: Explain the distribution of the various forms of -E- and what factors may predict that form

Trainings compared: -GHT-

Implicit training: “Here are some fingerspelled words.”

Trainings compared: -GHT-

Explicit training: Explain how these letters combine

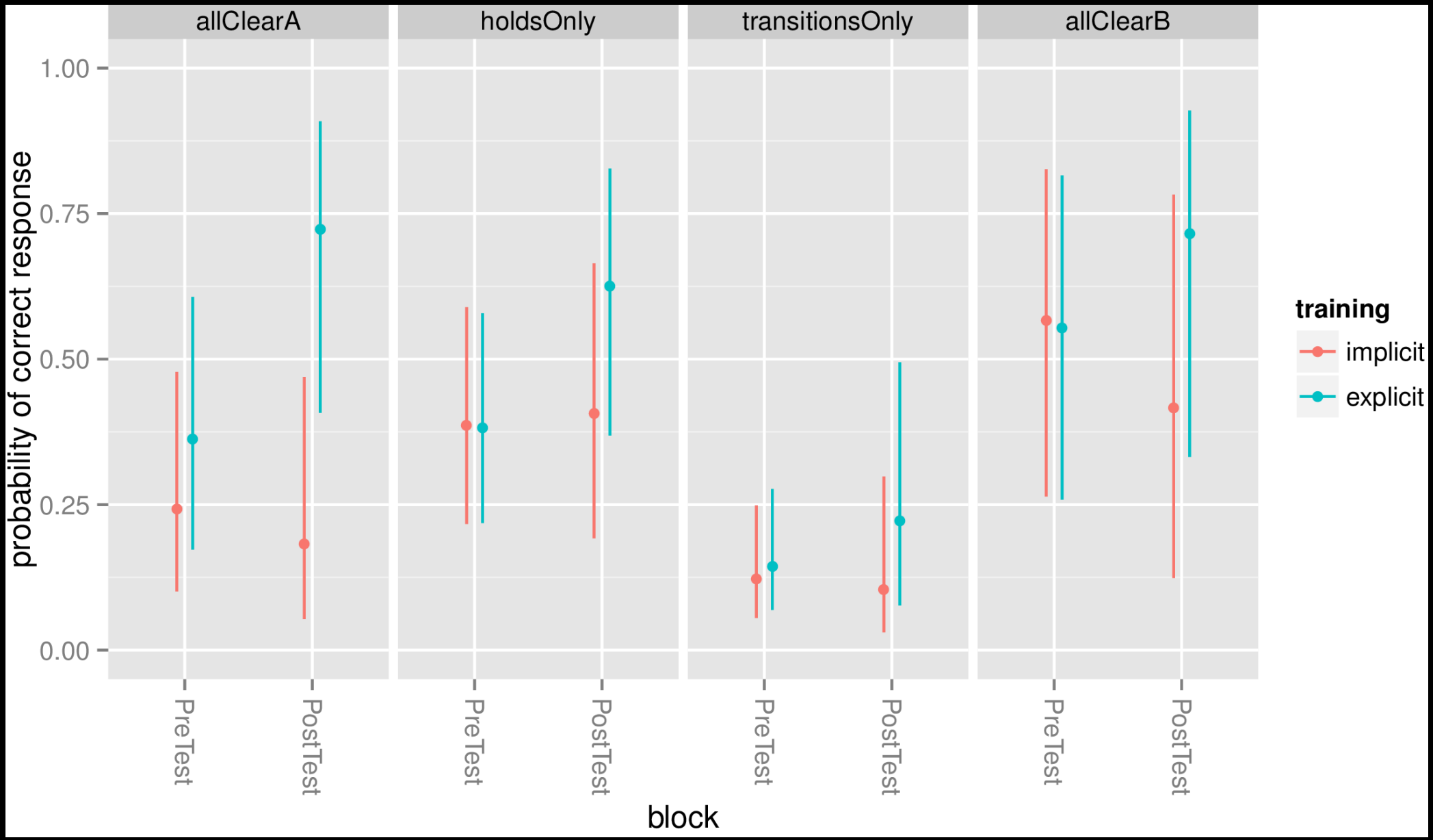
Trainings compared

Explicit	Implicit
39 total slides	39 total slides
(including some of the exact same slides)	
Videos and still images with text explanation of different linguistic features	(the same) Videos and still images
Opportunities to check comprehension skills	Opportunities to check comprehension skills

The pilot study

18 ASL 3 students in summer school
pre-test, training, post-test
time separating events: 1 week
Assignment in explicit or implicit training group: Balanced for using ASL 2 grade

Pilot


allClearA
holdsOnly
transitionsOnly
allClearB
probability of correct response
1.00
0.75
0.50
0.25
0.00
PreTest
PostTest
block
training
implicit
explicit

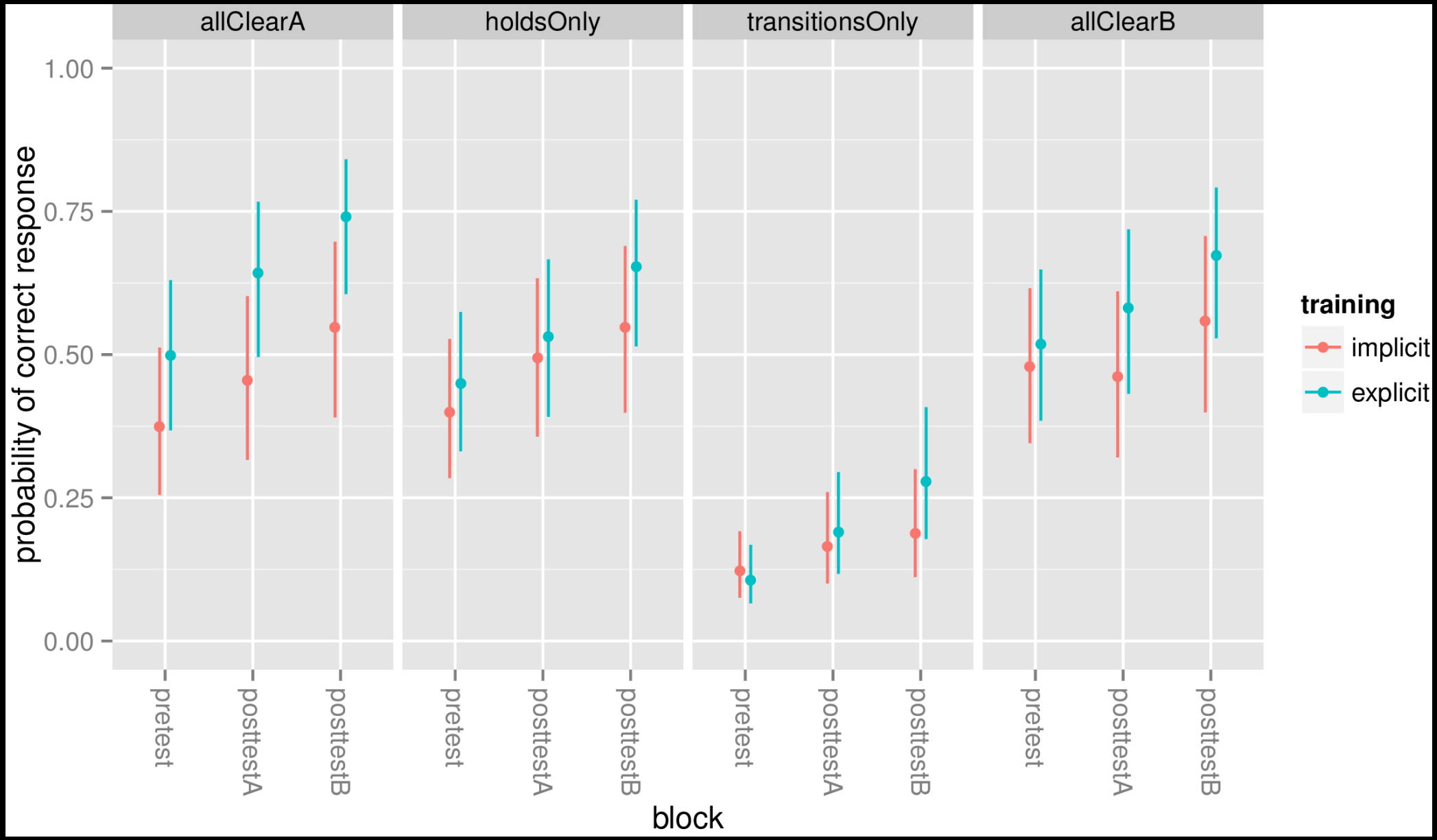
Pilot: Unanswered/raised questions

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?

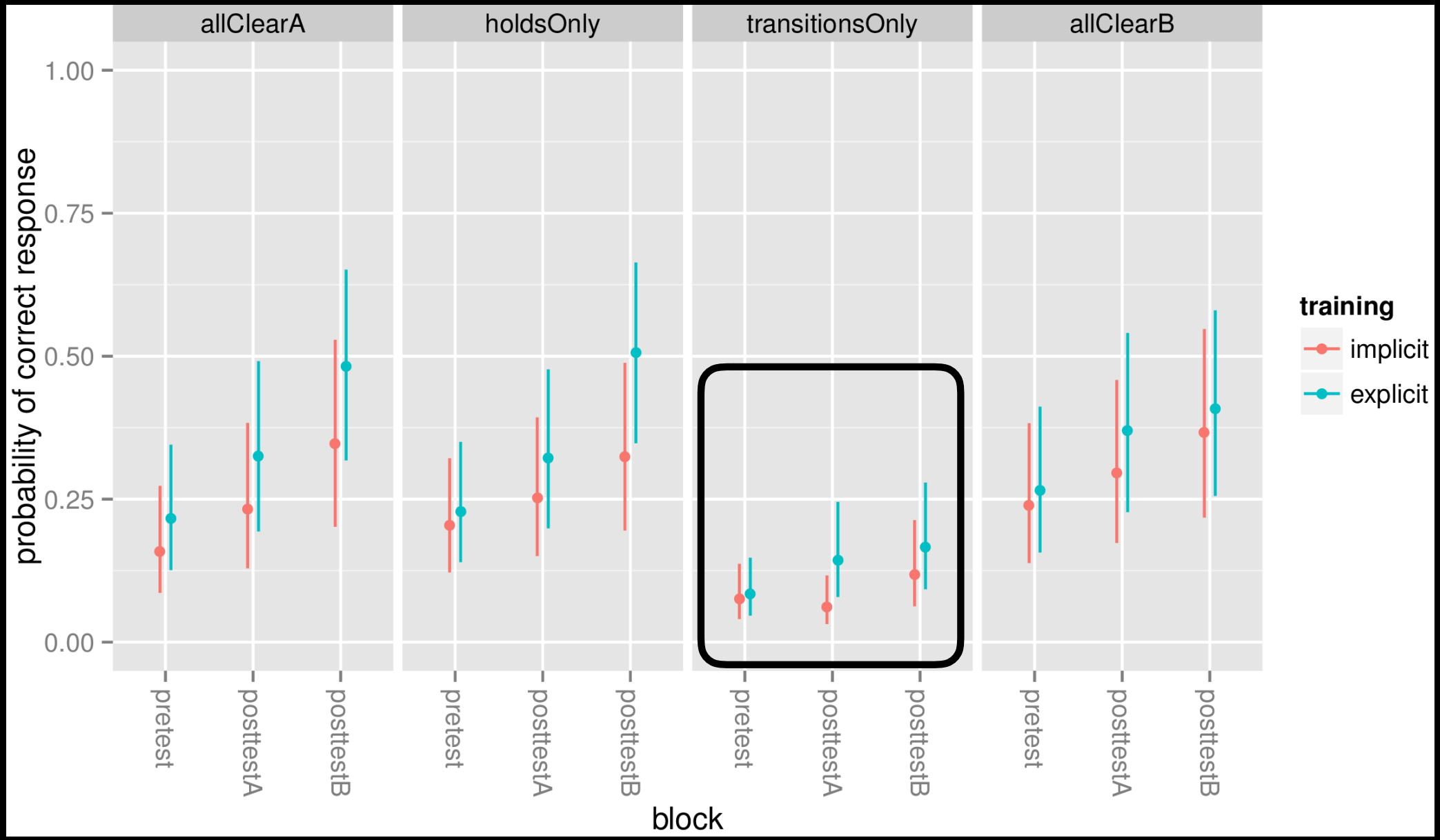
Full study

80 ASL 3 students in fall semester
pre-test, training, post-test 1, post-test 2
time separating events: 3 week
Assignment in explicit or implicit training group: Balanced for using ASL 2 grade

Default Orientation



Non-default orientation



Unofficial debrief

Implicit training
"provided a comprehensive review of fingerspelling production"

Explicit training
"helped me to understand fingerspelling as cursive"

Unofficial debrief

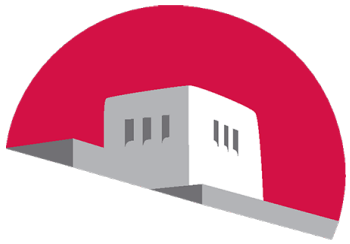
Implicit training
Students shocked they didn't improve; they felt more confident about post-test

Explicit training
More confident about the post-test, not surprised they'd improved

Three approaches

	Good modeling	**Additional description**
1	√	Prescriptively based. Might conflict with what is modeled.
2	√	∅
3	√	Descriptively based. Reflects linguistic analysis. Consistent with modeling.

Thank you!



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AT AUSTIN

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