Language Production Practice Improves Comprehension Performance on Grammatical Dependencies in Early L2 Learning

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language learning experience

impact on later comprehension

Better?

Output-focused evidence & theories

Input-focused evidence & theories

Krashen, 2003; VanPatten, 2013; Swain & Lapkin, 1995; DeKeyser & Sokalski, 1996; Izumi, 2003;
1. Language production practice might be a stronger learning opportunity than language comprehension practice.

Why?

Memory literature:

Production involves
- Attention demands
- Task-relevant choices
- Hearing yourself speak  Production Effect
- Recall (vs recognition)  Testing Effect

Single Word  Sentence Level Dependencies

Boiteau et al, 2014; Carter & Ste-Marie, 2017; MacLeod & Bodner, 2017; Roediger & Karpicke, 2006;
binding during sentence planning = learning opportunity

good enough processing, minimal syntactic analysis

Message

Utterance

Message

Utterance

Utterance Plan

Binding
Artificial Language Training

- Comprehension-Only Learning Condition
- Mixed-Experience Learning Condition
- Production-Only Learning Condition

Passive Exposure (all learning conditions)

Active Block:

Active Block:

Active Block:
Passive Exposure
(all conditions)

Comprehension Trials
Active task  Feedback

Production Trials
Active task  Feedback
Dependencies:
Number Agreement
Gender Agreement
Adjacent
Non-Adjacent

Artificial Language: Tool for experimental control
Training 122 Mixed 62 Production

Vocabulary Screening Test (Threshold: 80% Correct)
52 Comprehension 104 Mixed 52 Production

Forced Choice Comprehension Measures
- Vocabulary in Phrases Test
- Suffix Understanding Test
52 Comprehension 104 Mixed 52 Production

Error Monitoring during Comprehension Measures
52 Comprehension 52 Mixed 52 Production
Forced Choice - Suffix Understanding Test

“Voko Fumoko Weemoko Chag Ot”
Training

Vocabulary Screening Test (Threshold: 80% Correct)

Forced Choice Comprehension Measures
- Vocabulary in Phrases Test
- Suffix Understanding Test

Error Monitoring during Comprehension Measures
- Word Order Error Test
- Suffix Agreement Error Test
Error Monitoring - Suffix Agreement Error Test

“Vok Fumok Zoutoko Stam Ot Pavok Kredel’
Training

Vocabulary Screening Test (Threshold: 80% Correct)

Forced Choice Comprehension Measures
- Vocabulary in Phrases Test
- Suffix Understanding Test

Error Monitoring during Comprehension Measures
- Word Order Error Test
- Suffix Agreement Error Test
Forced Choice – Suffix Understanding Test

Proportion Correct

Comprehension Only
Mixed Experience
Production Only

RT (s)

Comprehension Only
Mixed Experience
Production Only

*
Error Monitoring – Suffix Agreement Error Test

Proportion Correct

Comprehension Only
Mixed Experience
Production Only

RT (s)

* indicates significant difference

Graph showing the proportion correct and RT for Comprehension Only, Mixed Experience, and Production Only conditions, with asterisks indicating significant differences.
Better!

Generating

language learning experience

Impact on later comprehension

Output-focused evidence & theories

Input-focused evidence & theories

Krashen, 2003; VanPatten, 2013; Swain & Lapkin, 1995; DeKeyser & Sokalski, 1996; Izumi, 2003;
Production Practice During Language Learning Improves Comprehension

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Thanks!

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Megan McClement
Teresa Turco
Gabriela Zayas Alom
Sarah Engel
Ann Chapman
Sarah Wang
Alma Reinebach
Mackenzie Ludin
Jamie Dawson
Emily Perez

Profs:
Mark Seidenberg
Jenny Saffran
Tim Rogers
Grad students:
Mark Koranda
Matt Cooper Borkenhage
Steve Schwering
Chris Cox
Martin Zettersten
Questions?