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Exploring the impact of explicit pronunciation instruction on advanced EFL students.

A developmental study of advanced EFL
students at the University of Vienna.

Valerie White-Hautzinger, Marija Djenadic,
Miriam Fiala, Anita Ghoreshi, Carolin Rumpler

Overview



State of the Art

Overview



State of the Art



The Study

Overview



State of the Art



The Study



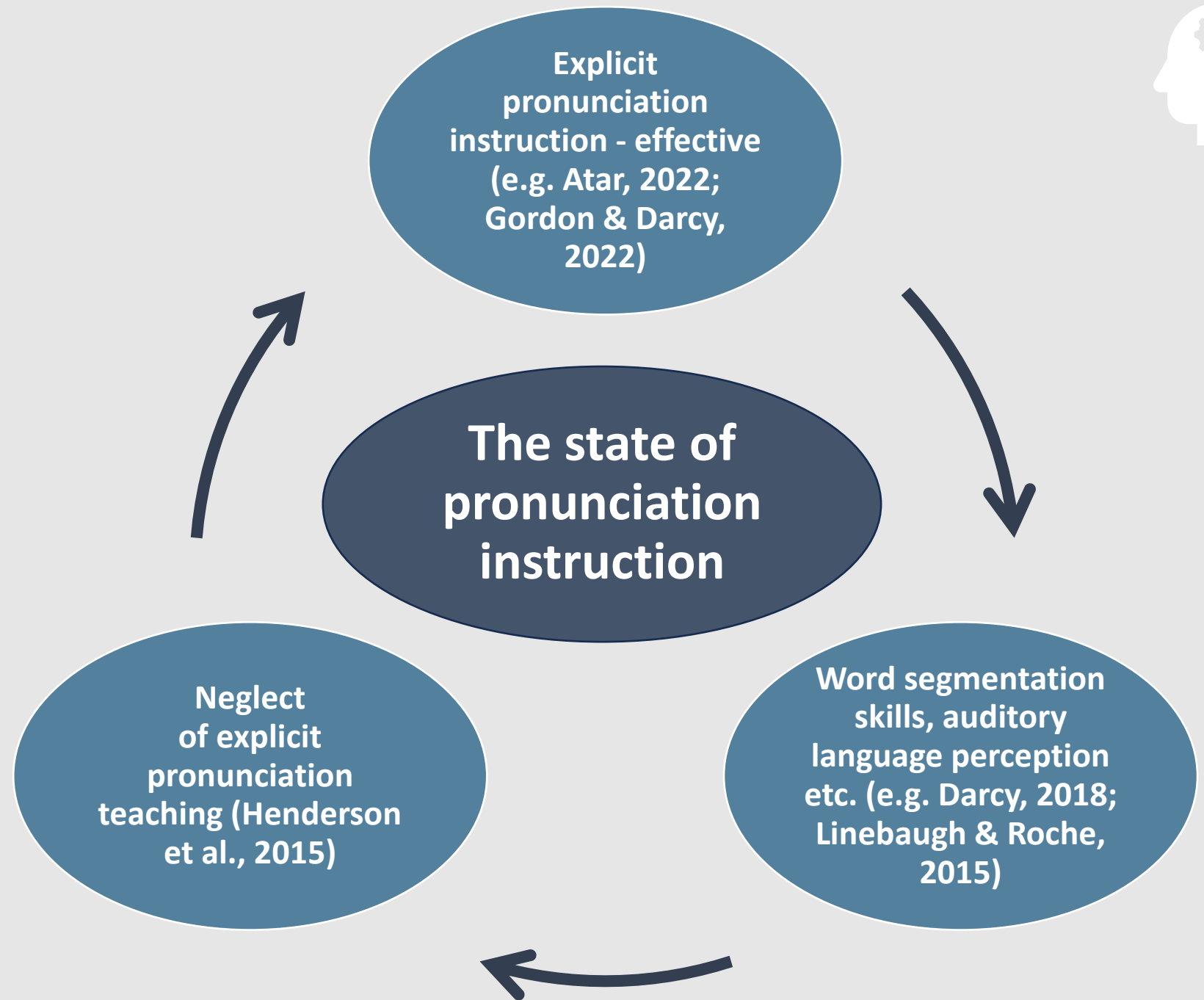
Findings

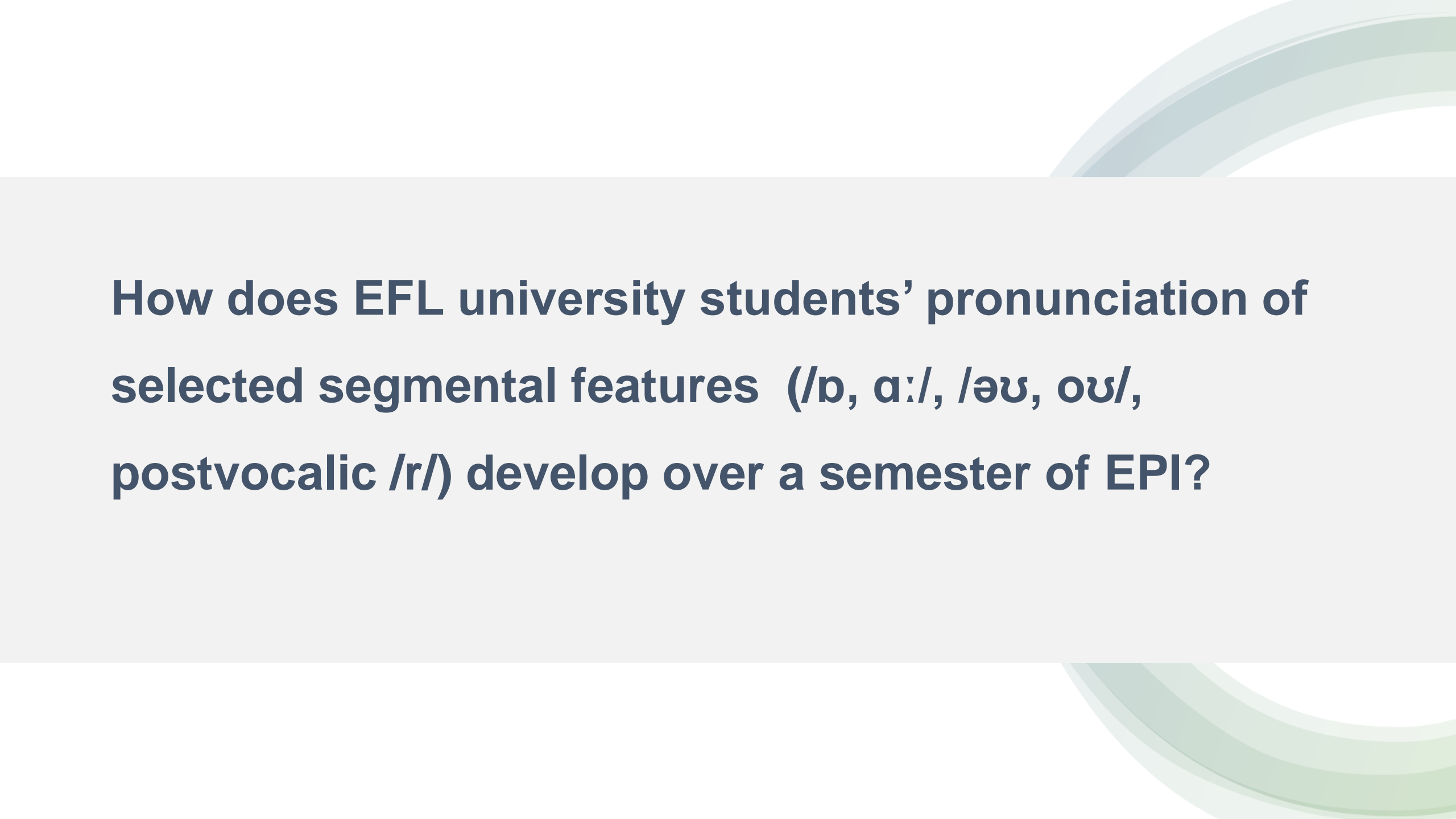


State of the Art

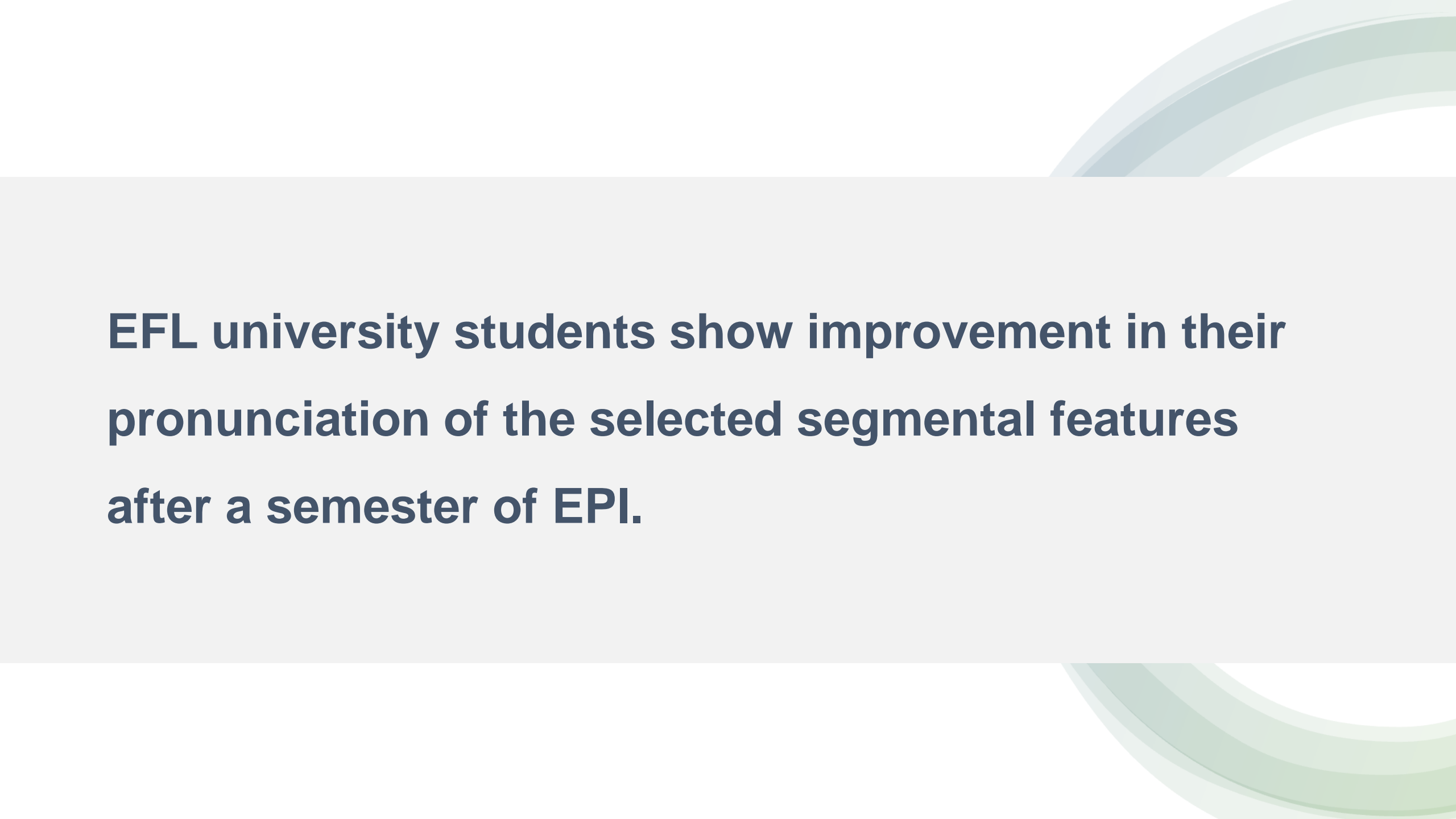


State of the Art





How does EFL university students' pronunciation of selected segmental features (/p, ɑ: /, /əʊ, oʊ /, postvocalic /r/) develop over a semester of EPI?



EFL university students show improvement in their pronunciation of the selected segmental features after a semester of EPI.



The Study

Study Setting

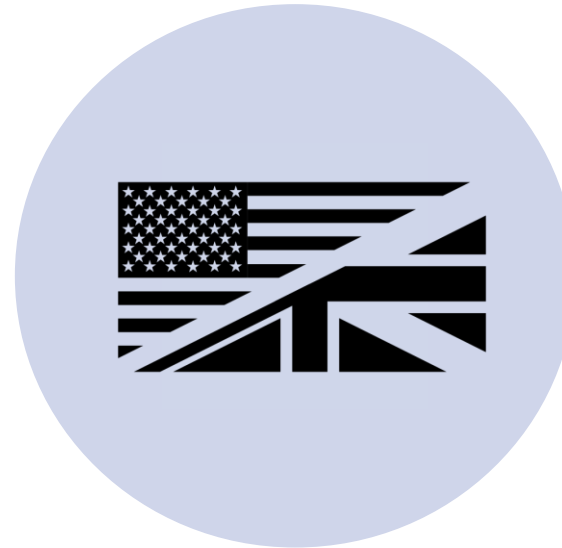


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Study Setting



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**DEPARTMENT OF ENGLISH &
AMERICAN STUDIES**

Study Setting



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**“PRACTICAL PHONETICS &
ORAL COMMUNICATION SKILLS”**



LANGUAGE LAB

PPOCS

- Advanced EFL learners (*CEFR* B2 – C1)
- Two offered varieties (BE & AE)
- 5 ECTS



The Language Lab

- Mandatory tutorial
- Weekly guided practice
- Personal formative feedback

In total: 4h/week

Practical Phonetics & Oral Communication Skills (PPOCS)



**Practical
phonetics**



**(Peer)
Feedback**



**Communicative
activities**



Assessment

The Language Lab





The Language Lab

Completing audio-supported exercises



The Language Lab

Completing audio-supported exercises

Receiving and providing feedback



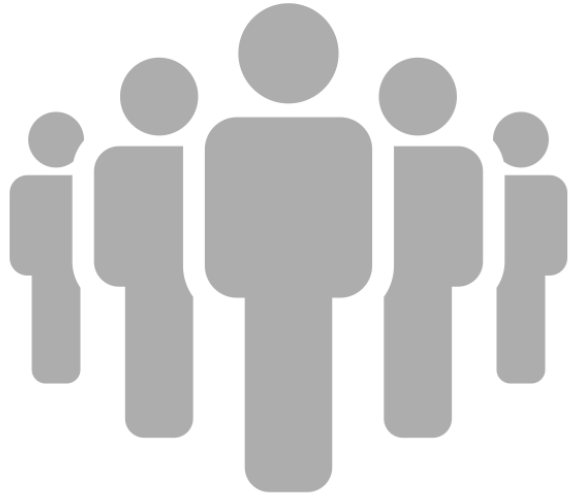
The Language Lab

Completing audio-supported exercises

Receiving and providing feedback

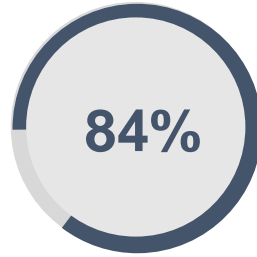
Practicing free speech

Participants

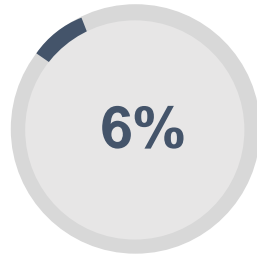


82

EFL university students



L1 German



Bilingual with German



Other L1s

Methodology

March, 2023

June, 2023

week 0

week 1-14

week 14



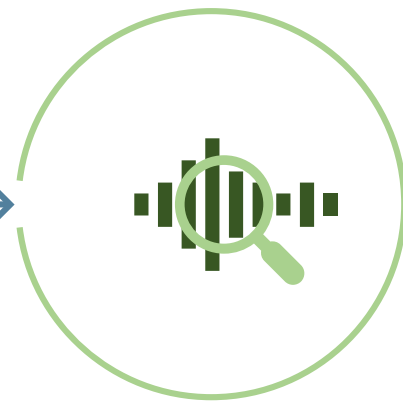
Pre-
recordings



Explicit
pronunciation
teaching



Post-
recordings



Auditory
Analysis

Reading Passage

The North Wind and the Sun

The North Wind and the Sun were disputing which was the stronger, when a traveller came along wrapped in a dirty cloak. They agreed that the one who first succeeded in making the traveller take his cloak off should be considered stronger than the other. Then the North Wind blew as hard as he could, but the more he blew, the more closely did the traveller fold his cloak around him; and at last the North Wind stopped. Then the Sun shone out warmly, and immediately the traveller took off his cloak. And so the North Wind was obliged to confess that the Sun was the stronger of the two.

Selected Segmentals

Table 1.

Distribution of 33 Selected Segmental Features in 30 Loaded Words

Selected segmentals	Total number of tokens	Examples
/ɒ, ɑː/	6	stronger, off, stopped
/əʊ, oʊ/	7	cloak, closely, fold
Postvocalic /r/	20	North, were, stronger

Rating Scale

Table 2.
Rating Scale

n/a: (6 tokens)		
Levels	Approximated tokens	Percentages (%)
Not approximated target variety (1)	[0;1]	0-20
Slightly approximated target variety (2)	[2]	21-40
Moderately approximated target variety (3)	[3]	41-60
Mostly approximated target variety (4)	[4]	61-80
Fully approximated target variety (5)	[5;6]	81-100
əʊ/oʊ (7 tokens)		
Level	Approximated tokens	Percentage (%)
Not approximated target variety (1)	[0;1]	0-20
Slightly approximated target variety (2)	[2]	21-40
Moderately approximated target variety (3)	[3;4]	41-60
Mostly approximated target variety (4)	[4;5]	61-80
Fully approximated target variety (5)	[6;7]	81-100
Postvocalic /r/ (20 tokens)		
Level	Approximated tokens	Percentage (%)
Not approximated target variety (1)	[0;4]	0-20
Slightly approximated target variety (2)	[5;8]	21-40
Moderately approximated target variety (3)	[9;12]	41-60
Mostly approximated target variety (4)	[13;16]	61-80
Fully approximated target variety (5)	[17;20]	81-100

Data Analysis

- R version 4.3.3 (R Core Team, 2024) and RStudio version 2024.04.2 (RStudio Team, 2024) specifically, the R packages
 - “stats” (R Core Team, 2024),
 - “rcompanion” (Mangiafico, 2024), and
 - “vcd” (Meyer et al., 2023)



Data Analysis: Inter-rater Reliability

Table 3.
Rating Cycles

Recordings (4 Sets)	Rating Cycle 1	Rating Cycle 2
Recording_001 - Recording_041	Rater 1	Rater 4
Recording_042 - Recording_082	Rater 2	Rater 1
Recording_083 - Recording_123	Rater 3	Rater 2
Recording_124 - Recording_164	Rater 4	Rater 3

Data Analysis: Inter-rater Reliability

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Recording_124 - Recording_164	Rater 4	Rater 3

Table 4.
Inter-rater Reliability Analysis for all Target Features in all 4 Sets

Feature	K_w	Benchmarks according to Landis and Koch (1977)
/ɒ, ɑ:/	.32 - .70	Fair to substantial agreement
/əʊ, oʊ/	.50 - .74	Moderate to substantial agreement
/r/	.74 - .90	Substantial to almost perfect agreement

Findings

Table 5.
Means, Medians, Standard Deviations for all Target Features during Pre- and Post-test

Feature	Time Point	M	Mdn	SD
/ɒ, a:/	Pre-test	3.70	4.00	1.48
/ɒ, a:/	Post-test	4.05	5.00	1.33
/əʊ, oʊ/	Pre-test	3.23	4.00	1.77
/əʊ, oʊ/	Post-test	4.29	5.00	1.17
/r/	Pre-test	4.07	5.00	1.34
/r/	Post-test	4.67	5.00	0.74

Note. N = 82.

**p < .01

Findings: /p, a:/

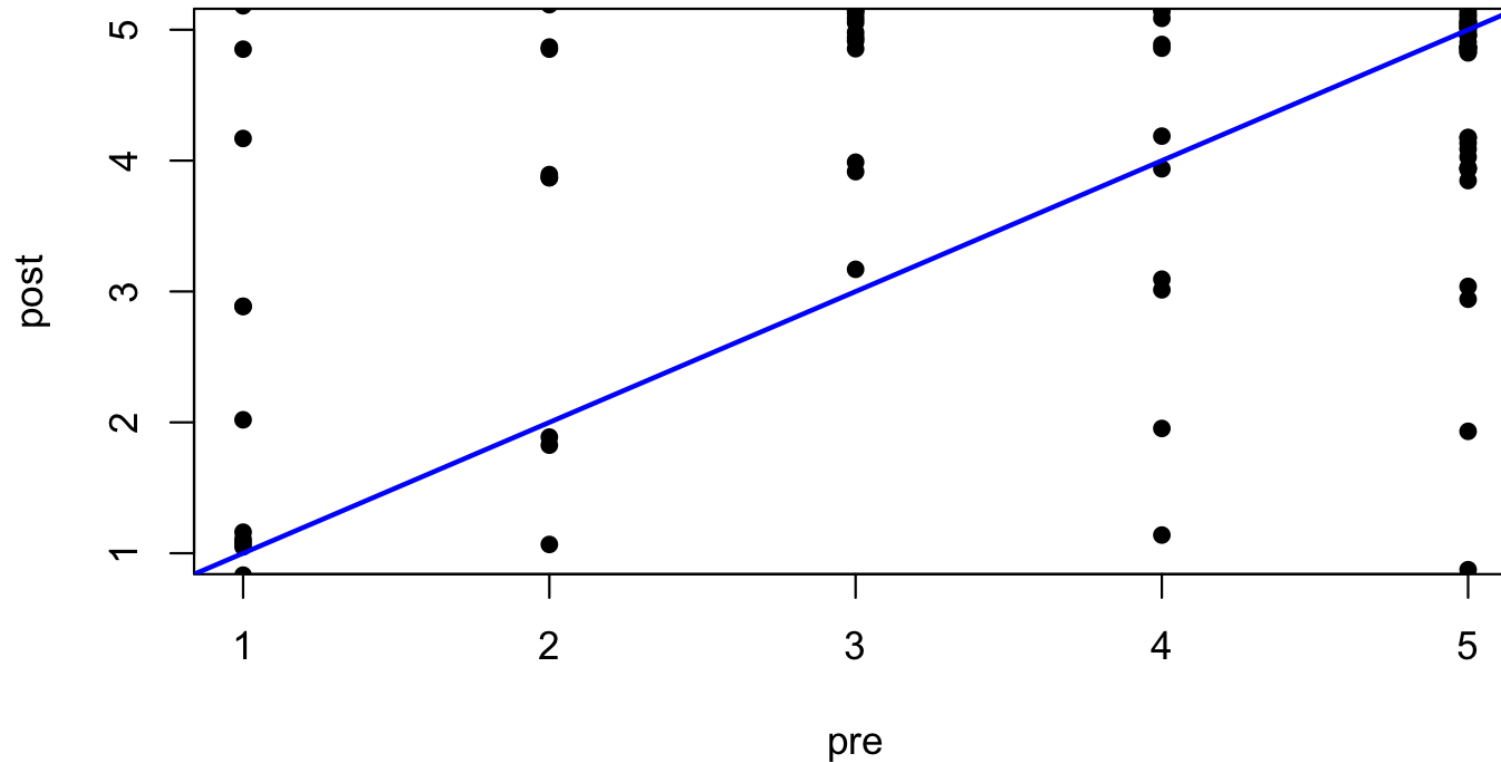


Figure 1.
Pre-test Scores and Post-test Scores for /p, a:/

Findings: /əʊ, oʊ/

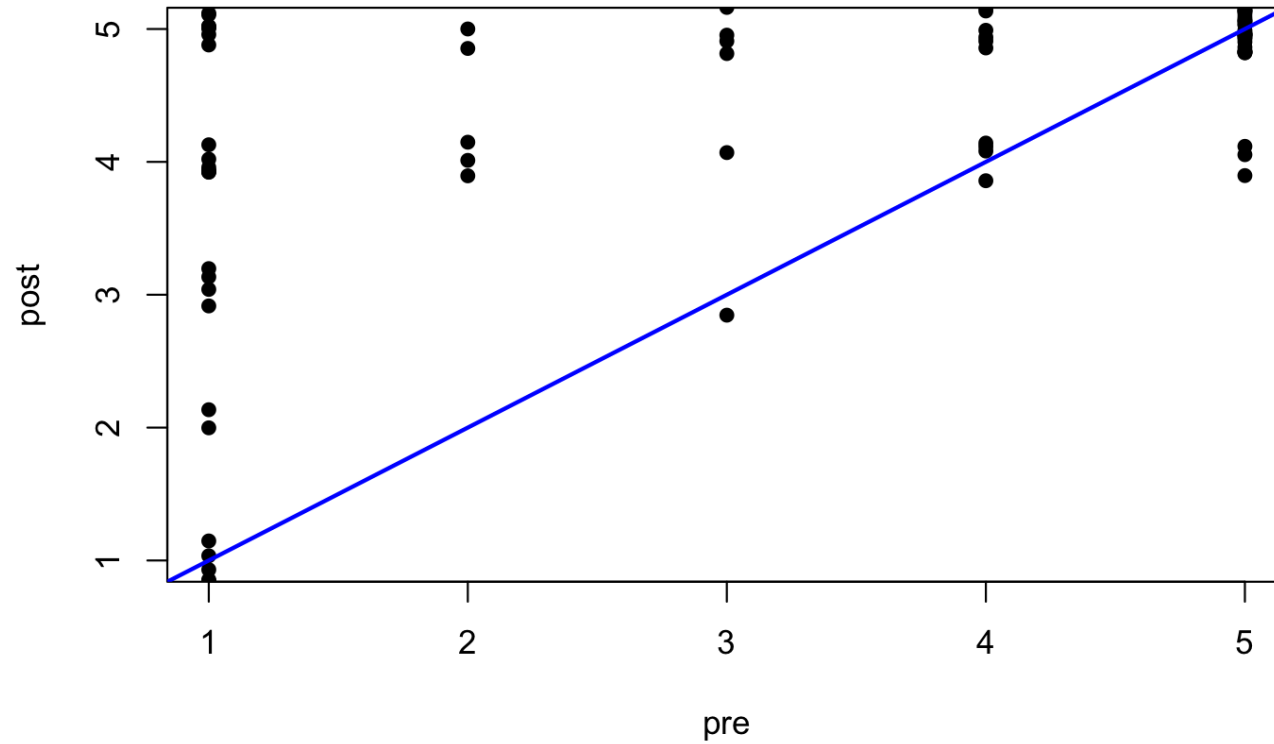


Figure 2.
Pre-test Scores and Post-test Scores for /əʊ, oʊ/

Findings: Postvocalic /r/

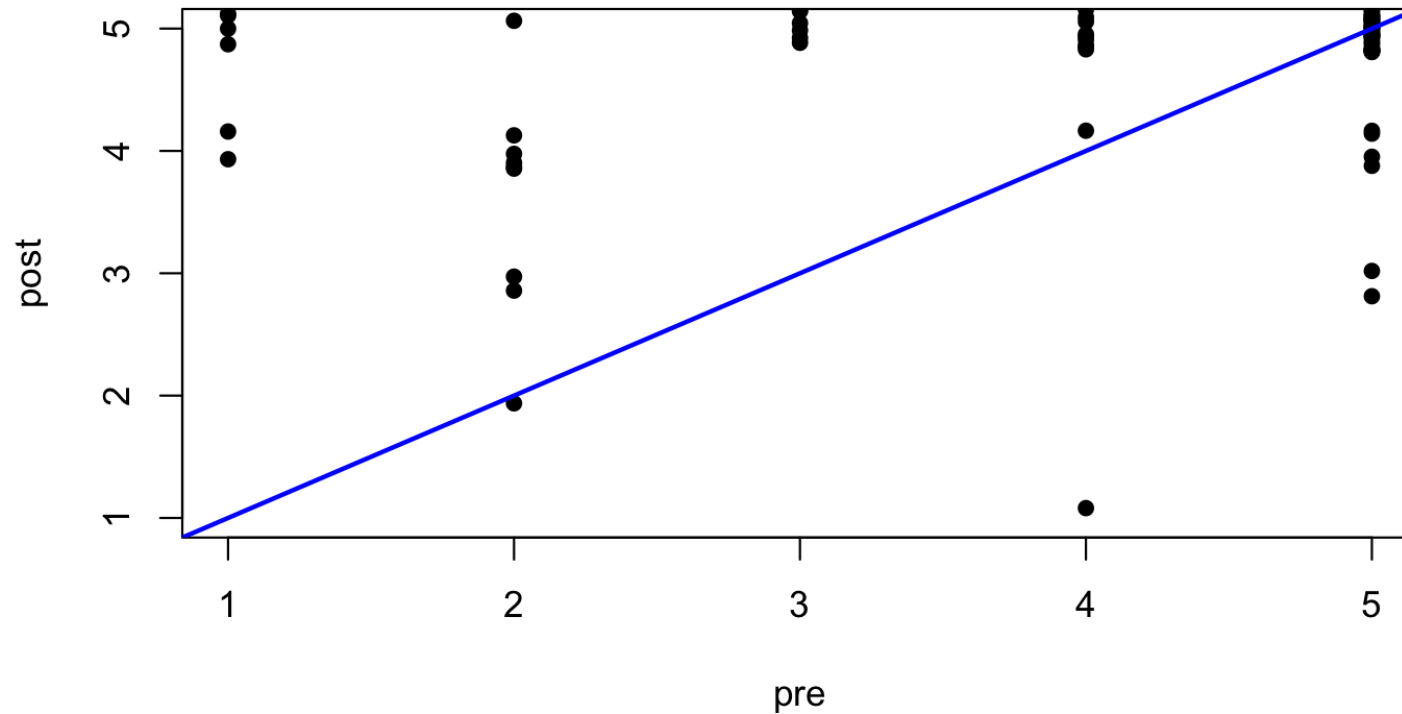


Figure 3.
Pre-test Scores and Post-test Scores for Postvocalic /r/

Findings

Table 6.
One-Tailed Wilcoxon Signed-Rank Test Results for Target Features

Feature	W	Z	p	r_{rb}	99% CI [LL, UL]
/ɒ, a:/	351.0	-2.54	.011	-.38	[-.76, < -.01]
/əʊ, oʊ/	19.5	-5.41	< .001	-.95	[-1, -.82]
/r/	108.5	-3.89	< .001	-.69	[-.94, -.35]

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Findings

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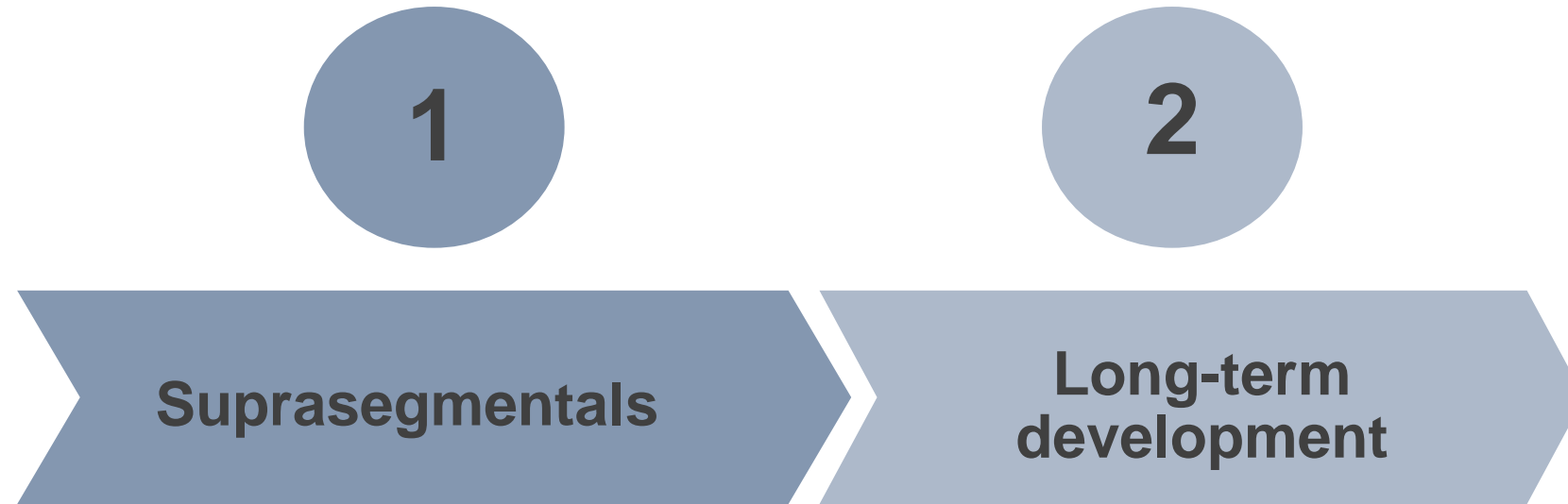
Conclusion

- 1 Explicit pronunciation instruction shown to be effective
(e.g. Darcy 2018; Ghorbani et al. 2016; Mahmood 2023; Pardede 2018; Zhang & Yuan 2020)
- 2 All sounds analyzed improved significantly
- 3 Greatest improvement observed in the diphthongs /əʊ/ and /oʊ/

Limitations

- 1 Primarily German-speaking participants
- 2 Control groups and variables
- 3 Unequal token distribution and focus on a limited number of segmentals

Next Steps



On behalf of our team:
Thank you!



Anita Ghoreshi



Marija Djenadic



Valerie White-Hautzinger

Sources

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Figure 3. Pre-test and Post-test Scores for postvocalic /r/

Appendix

Inter-Rater-Reliability Analysis for all Target Features in all Four Sets

<i>/p, a:/</i>				
Sets	κ_w	95% CI [LL, UL]	z	p
1	.32	[.11, .52]	3.05	.001
2	.43	[.20, .66]	3.68	< .001
3	.70	[.49, 0.91]	6.48	< .001
4	.63	[.45, 0.81]	6.77	< .001
<i>/əʊ, oʊ/</i>				
Sets	κ_w	95% CI [LL, UL]	z	p
1	.74	[.61, 0.88]	10.57	< .001
2	.67	[.49, .84]	7.36	< .001
3	.50	[.28, .71]	4.55	< .001
4	.60	[.38, .83]	5.17	< .001
<i>/r/</i>				
Sets	κ_w	95% CI [LL, UL]	z	p
1	.87	[.78, .96]	19.33	< .001
2	.82	[.63, 1.00]	8.45	< .001
3	.90	[.83, .97]	24.32	< .001
4	.74	[.58, .90]	9.02	< .001