

# Best Practices in L2 Pronunciation Teaching

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# Who am I?



# Who am I?



Who am I?



# Who am I?



# Who am I?



Second Language Acquisition

## Pronunciation



**Motivation:** Bridging the gap between research and teaching practice

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# Best Practices in L2 Pronunciation



Bridging the gap between theory and practice



How has L2 pronunciation research informed best practices for pronunciation teaching today?

# Structure

1. Background: Research Findings in L2 Pronunciation
  - What have we learned from 4 decades of research in L2 pronunciation?
  - How do these findings inform teaching practice?
  - What questions remain unanswered? What does that mean for teaching practice?
  
2. Practical Part
  - Three methods of teaching pronunciation in the classroom
    1. Web-based apps and programs
    2. Peer feedback
    3. Inductive approach



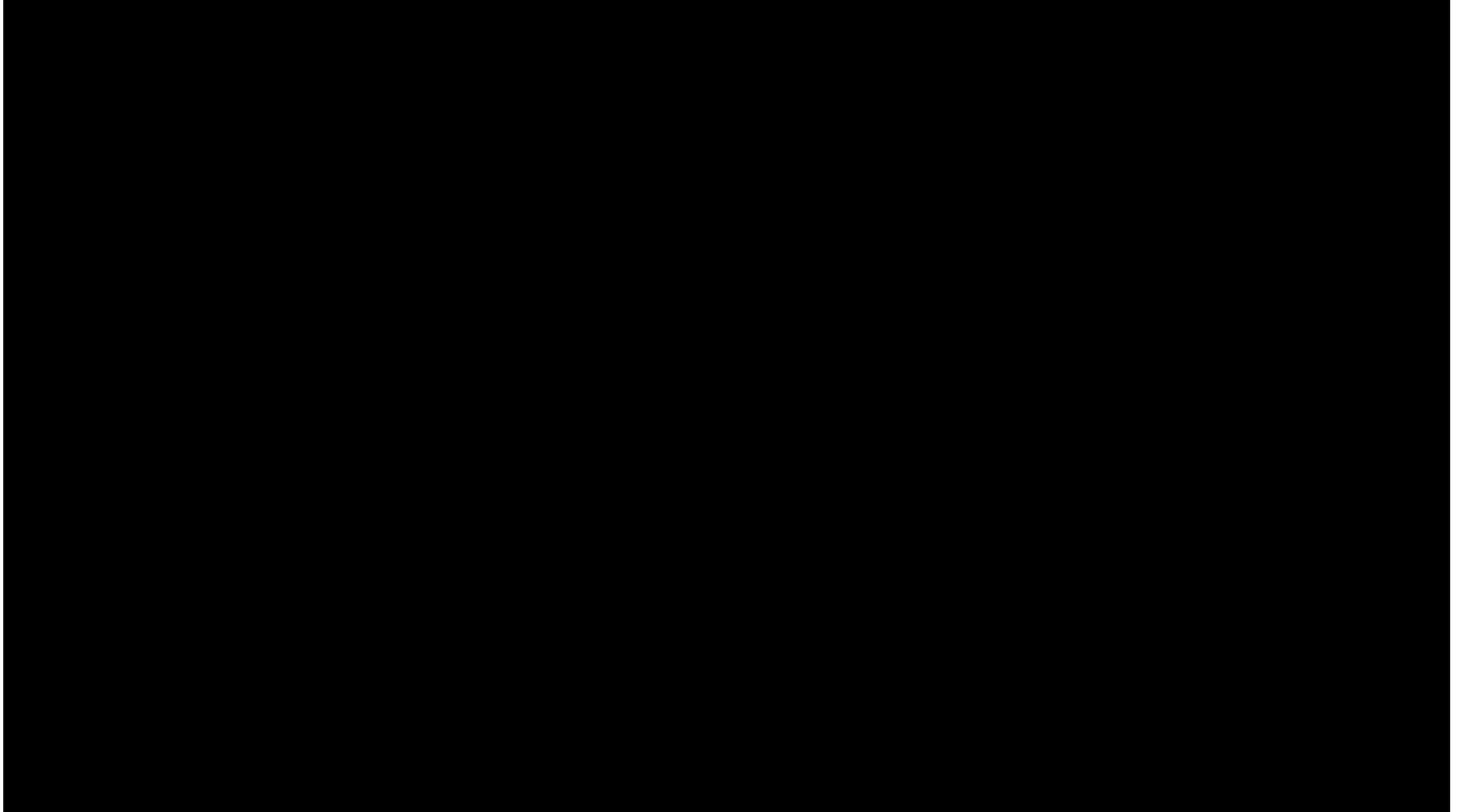
# Research Findings in L2 Pronunciation

1. Does pronunciation even matter?
2. If so, do we have to teach it or does it improve by itself over time?
3. If we have to teach it, can we successfully do so?
4. If we can successfully teach it, what is our goal? That is, what exactly is “good pronunciation”?
5. Once we know what our goal is, what exactly should we teach to achieve that goal? What is most helpful for our learners?
6. Once we know **what** to teach: **how** should we best teach it?



How research informs practice

# Does pronunciation matter?



# Does pronunciation matter?

- Goal of L2 teaching → successful communication in the foreign language
- Research has shown that we often judge our interlocutor's **mental abilities** and the **truthfulness of the message** based on L2 pronunciation and accentedness (Duppenhaler, 1991; Lev-Ari & Keysar, 2010, 2012)
- It is important to find ways to improve our students' pronunciation

# Do we have to teach pronunciation? → Yes!

*Applied Linguistics* 2015: 36/3: 345–366

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## The Effectiveness of Second Language Pronunciation Instruction: A Meta-Analysis

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The goal of this study was to determine the overall effects of pronunciation instruction (PI) as well as the sources and extent of variance in observed effects. Toward this end, a comprehensive search for primary studies was conducted, yielding 86 unique reports testing the effects of PI. Each study was then coded on substantive and methodological features as well as study outcomes (Cohen's *d*). Aggregated results showed a generally large effect for PI ( $d=0.89$  and  $0.80$  for *N*-weighted within- and between-group contrasts, respectively). In addition, moderator analyses revealed larger effects for (i) longer interventions, (ii) treatments providing feedback, and (iii) more controlled outcome measures. We in-

# Do we have to teach pronunciation?

## And if we do, does it help?

### 2 common misconceptions:

1. Adult learners can't improve their pronunciation.
  - **Critical Period Hypothesis** (Lenneberg, 1967): The idea of a cut-off period (usually around puberty) after which native-like acquisition of L2 phonology seems impossible due to changes in the brain.
  - **Flege, Munro & MacKay (1995)**: large-scale study with 240 Italian immigrants who came to Canada between the ages of 3-25 → perfectly linear relationship between age of arrival and degree of perceived accent.
2. Time or study abroad experiences will “fix” our learners’ pronunciation.
  - False!
  - Research has shown that even long time immersion does not significantly improve learners’ pronunciation in the absence of targeted pronunciation instruction (Munro & Derwing, 2008; Trofimovich & Baker, 2006).
  - Explanation: Learners can usually not identify their own mistakes (Dlaska & Krekeler, 2008)

Do we have to teach pronunciation? → **Yes!**  
And if we do, does it help?

- **Can** we effectively teach L2 pronunciation?
  - Yes, we can!
  - Lee, Jang & Plonsky's (2015) meta-analysis found that learners who received pronunciation instruction outperformed learners in the control group by 0.80 standard deviation units.
    - → A comparison with meta-analyses of other areas of instructed SLA shows „that instruction on pronunciation can be just as (or more) effective as vocabulary, grammar, and pragmatics“ (p. 375)

# What should be the goal of pronunciation instruction?

- **Option 1:** Improving our learners' L2 accent (= native-like pronunciation)?  
or
- **Option 2:** Making sure that our learners are more intelligible/ easier to be understood?

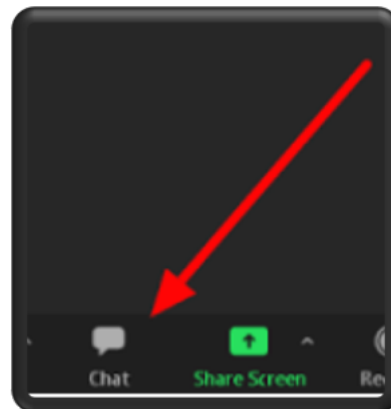
# The goal of pronunciation instruction

Intelligibility	Comprehensibility	Accentedness
<p><b>The extent to which a listener actually understands an utterance</b></p>	<p><b>A listener's perception of how difficult it is to understand an utterance</b></p>	<p><b>A listener's perception of how different a speaker's accent is from that of the L1 community</b></p>
<p>Transcription task</p> <p>Number of correct words counted</p>	<p>Scalar judgment task</p> <p>1= extremely easy to understand 9= extremely difficult to understand</p>	<p>Scalar judgment task</p> <p>1= no accent 9= extremely strong accent</p>



# What should be the goal of pronunciation instruction?

- **Option 1:** Improving our learners' L2 accent (= native-like production)?  
or
- **Option 2:** Making sure that our learners are more intelligible/ easier to be understood?



# The goal of pronunciation instruction

- Levis (2005):
  - ~~nativeness principle~~ vs. intelligibility principle

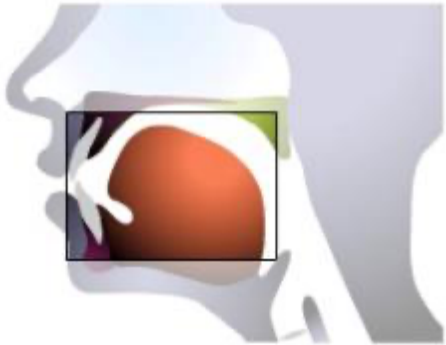
➔ Goal: successful communication in the L2

Focus on improving learners' intelligibility and comprehensibility!

# What do you think influences intelligibility and comprehensibility the most?

## Segmentals

- Individual vowel and consonant sounds



/y/

Die Zunge ist hoch und vorn im Mundraum kurz hinter der /j/ Stellung. Die Zungenspitze berührt die unteren Schneidezähne. Der Vokal ist lang und gespannt.

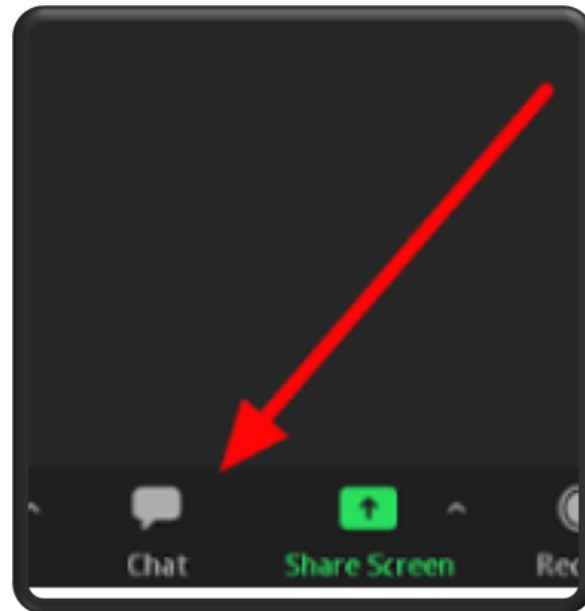
## Suprasegmentals

- Features of speech above the level of segmentals
  - Rhythm
  - Intonation
  - Stress (word and sentence level)
  - Pausing

What do you think influences intelligibility and comprehensibility the most?

Segmentals

Suprasegmentals

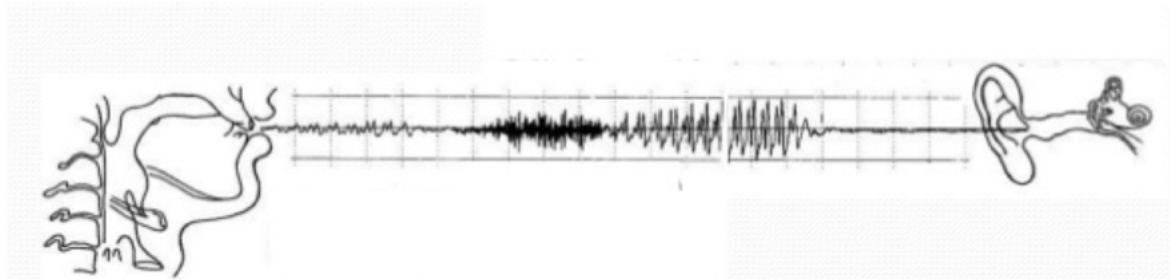


# Segmentals vs. Suprasegmentals

Derwing & Munro (2015): Ideally, teach both!

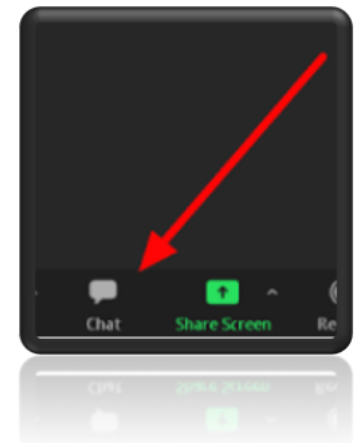
- Segmentals
  - 1980s and 1990s
  - But still ongoing research: Lord, 2005; Counselman, 2010
- Suprasegmentals
  - Upcoming since the mid 1990s
  - Chun, 2002; Hardison, 2004; Tanner & Landon, 2009
- Derwing, Munro, & Wiebe (1998)
  - Compared segmental and suprasegmental training
  - → significantly greater improvement of comprehensibility in the group that received suprasegmental training

# Perception vs. Production



- What is the relationship between perception and production of L2 sounds?
- Is perception important for production?

**YES!**



# Perception vs. Production



- Improvement in perception will **transfer** to **production** (see Sakai & Moorman, 2018 for a summary and meta-analysis)
- Based on Flege's *Speech Learning Model SLM* (1995): lack of perception ability leads to inaccurate production of foreign sounds
- L2 learners must be able to correctly perceive L2 sounds before accurate production can occur

# Perception: HVPT

- Gold Standard: High Variability Phonetic Training
  - sounds produced by multiple talkers in varied phonetic contexts
  - increasing the variability of the input results in greater and more generalizable gains in L2 speech perception
- ✓ Helps to improve learners' production (Lambacher et al., 2005; Thomson, 2018)



Teaching Practice: include perception training, include multiple voices, include sounds in various words



# Summary



How do research findings inform teaching practice?

- ✓ Pronunciation matters in successful L2 communication
- ✓ It has to be taught
- ✓ Teaching pronunciation leads to comparable gains as teaching other areas of L2
- ✓ Goal → improving learners' intelligibility (and comprehensibility)
- ✓ We should teach both segmentals and suprasegmentals
- ✓ Perception training should precede production training
- ✓ Include various voices and sounds in different environments

# What remains unanswered?

1. The timing of teaching L2 pronunciation
  - ✓ The earlier, the better (Roccamo, 2014)
  - ✓ But in what order? → Language specific
  
2. Individual differences / phonological aptitude
  - ✓ Individual differences matter
  - ✓ More individualized pronunciation training

# Let's put it all to practice

3 methods of teaching L2 pronunciation

(in the classroom or as homework / asynchronous if teaching online)

# 1. Web-based apps and programs

# YouGlish

- *YouGlish* is a practical website which indexes videos from *YouTube* and allows users to search for words (or short sentences) and listen to them.
- Pronunciation Dictionary
- [www.youglish.com](http://www.youglish.com)
  - Most L2s, not just English!

# YouGlish

- Benefit:
  - Introduces learners to a wide range of voices.
- Use:
  - Ask beginner learners to search lists of words containing sounds known to be particularly problematic and have them watch a dozen videos per word.
  - Production activities:
    - **Repetition** of words + feedback :  
*Speaker1 – Student – Speaker2 – Student...*

# Google Pronunciation Feature

- Google *word + pronunciation*



homogenous pronunciation

Videos


Images


News

Homogenous American pronunciation ▾

Sounds like  
huh·maa·juh·nuhs 🔊

Slow



 Practice

- Provides feedback:

Homogenous American pronunciation ▾

Sounds like  
huh·maa·juh·nuhs 🔊



 Sounds like you said  
huh·maa·juh·nuhs

You may have mispronounced *j*  
How to improve ▾

Slow

 Practice

Feedback

Homogenous American pronunciation ▾

Sounds like  
huh·maa·juh·nuhs 🔊



 Sounds like you said  
huh·maa·juh·nuhs

 Good job!

Slow

 Practice

Feedback

# Google Pronunciation Feature

- Right now, only for English pronunciation



- Only on devices with a built-in microphone



# Perception Training – English Accent Coach

- [www.englishaccentcoach.com](http://www.englishaccentcoach.com)



**English Accent Coach™** Version 3.0

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Welcome to English Accent Coach!

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iPhone, iPod Touch & iPad App Store

**Average Score by Country**

Vowels		Consonants	
CHN	76%	KOR	77%
CAN	74%	na	70%
KOR	52%		
na	44%		

Today Yesterday Sat Fri Thu Wed

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- Improvement in learners' **perception** leads to improvement in L2 **pronunciation**.
  - Establish more **robust mental representations of L2 sounds**.
- Segmental level (vowels and consonants) only
- Excellent **individualized homework** activity: 5 to 10 min.

# Sounds of Speech – University of Iowa

- [www.soundsofspeech.uiowa.edu](http://www.soundsofspeech.uiowa.edu)
- *Google:* Sounds of Speech Iowa



## Welcome to Sounds of Speech

Sounds of Speech provides a comprehensive understanding of how each of the speech sounds of American English, Spanish, and German are formed. It includes animations, videos, and audio samples that describe the essential features of each of the consonants and vowels of these languages. English Sounds of Speech is especially useful for students studying English as a second language. Please select a language below to continue.

German

Spanish

# Sounds of Speech – University of Iowa

- American English, German, Spanish
- App: English only

## Sounds of Speech (English) is available as a mobile app

The mobile app contains content for English only, with explanatory text in English, Spanish, Chinese, and Korean. For support with the iOS or Android version of Sounds of Speech, please contact [uif@uiowa.edu](mailto:uif@uiowa.edu).



Demo 



Platforms to provide feedback on your learners' pronunciation and give corrections.





## Discussion

Create Groups for your learning communities and add Topics to start the discussion.

 Groups

 Topics

### Groups (6)

Groups are an easy way to share discussion Topics with your community.

Name

Responses



**FG102 - 5th period**

Public · 1 Topic

14



**FG102 - 6th period**

Public · 1 Topic

19



**FG320**

Public · 1 Topic

10



**FG 310**

Private · 1 Topic

15



**FG 101 - 5th period**

Private · 3 Topics

45



**FG101 - 6th period**

Private · 3 Topics

57

# FLIP (FLIPGRID)

[www.flip.com](http://www.flip.com)

- it's free 😊
- sign in with Google account (super fast)
- video, audio + written feedback
- private (teacher to student only) or public (open to whole class)
- great resource in online and F2F learning environments

# EXTEMPORE

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Mr Smith's Spanish Class Section 1

- Weekly Oral Practice - Week 1  
Multiple Attempts Due Nov 30, 2018
- Weekly Oral Practice - Week 2  
Multiple Attempts Due Nov 30, 2018
- Weekly Oral Practice - Week 3  
Multiple Attempts Due Nov 30, 2018
- Weekly Oral Practice - Week 4  
Multiple Attempts Due Nov 30, 2018
- Mid Term Exam  
Graded Due Nov 30, 2018

- [www.extemporeapp.com](http://www.extemporeapp.com)
- same concept as Flip
- fancy interface
- not free (university license?)

## 2. Peer Feedback Activities

# Really? Peer Feedback?

- “But peer feedback is usually not as good as teacher feedback!”
  - Lower quality
    - Less focused
    - Inaccurate

→ True



Peer feedback allows learners to assume an **active role** in the learning process, whereas teacher feedback forces them to take on a **passive role**.



What does the research say? →

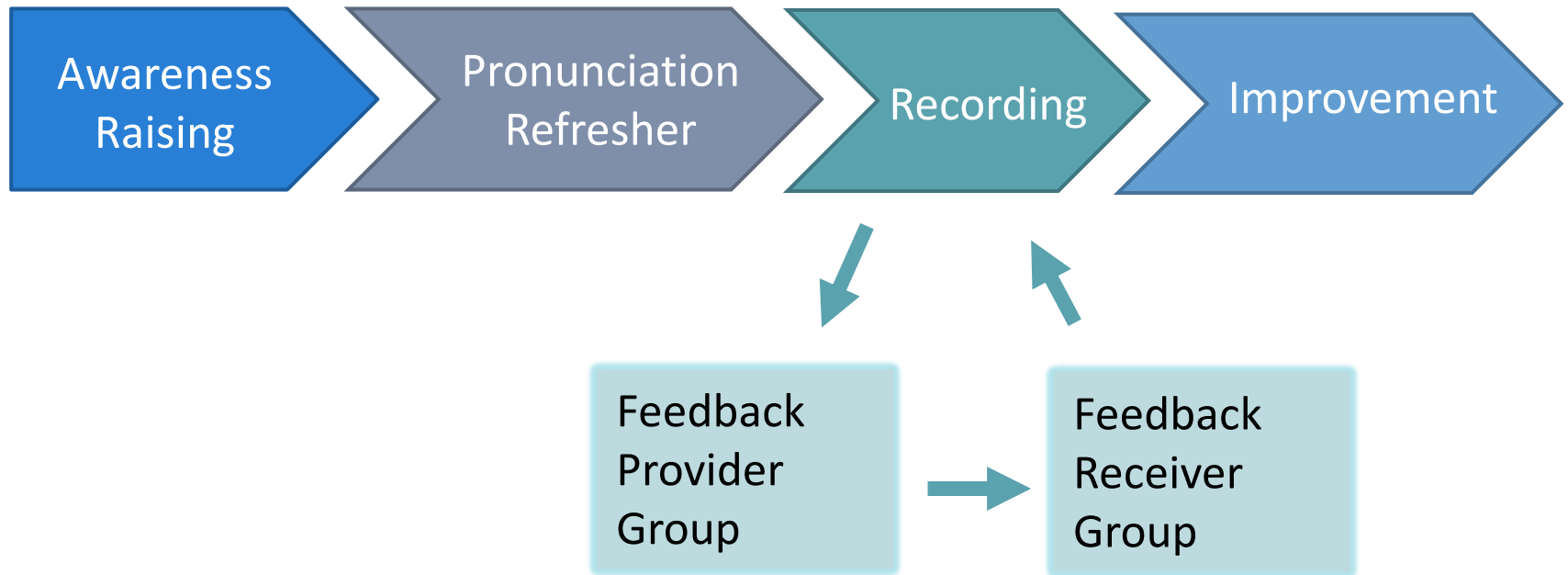


Can we help our learners improve their pronunciation skills with a PF intervention?

- *Results:*
  - PeerF learners showed comparable gains as TeacherF learners (Martin & Sippel, 2021)
  - PeerF learners showed longer maintenance of gains (Sippel & Martin, 2022; Martin & Sippel, 2023)
  - Largest benefits seemed to stem from providing rather than from receiving PF (Martin & Sippel, 2021)

**We can use Peer Feedback to help our students improve their pronunciation.**

# General Design



- Canvas or Shared Folder in Google Drive or  Flip
- Can be used in F2F and online classrooms

## 1st Feedback Recording

# Materials for PF Intervention

Download sample materials here:  
<https://tinyurl.com/y6sebjxq>

- In the following, you will see 23 German sentences: one on each slide.
- Please read these sentence out loud while you record yourself using your Audacity Software.
  - You do not need to read the English translation. The translation is just provided in case you want to know what the sentence means.
- During the recording:
  - Make sure the room is quiet
    - No music, loud roommates, etc.
  - Avoid typing on the keyboard while speaking
  - Try to speak as clearly as possible
  - Minimize background noise & static from your computer's microphone

- Start recording now.



Der Kandidat kauft einen neuen Anzug für sein Interview.

Translation:  
The candidate buys a new suit for his interview.

Listen to your peer's recording for the first time. Pay attention to the words that contain the letter „z“ (written in bold in the sentences below). As you know, „z“ should be pronounced „ts“ in German. For each word, decide if „z“ in your peer's recording sounded like „ts“ and check the appropriate box in the column on the right.

	Did „z“ sound like „ts“?
Der Kandidat kauft einen neuen <b>Anz</b> ug für sein Interview.	<input type="checkbox"/> yes <input type="checkbox"/> not sure <input type="checkbox"/> no
Die <b>Z</b> eitung berichtet über den Konflikt im Nahen Osten.	<input type="checkbox"/> yes <input type="checkbox"/> not sure <input type="checkbox"/> no
Im Islam feiert man nicht Weihnachten, sondern das Ende von Ramadan.	[no „z“ in this sentence]
Der nette Muslim Erkan wird im Mai <b>sieb</b> zig Jahre alt.	<input type="checkbox"/> yes <input type="checkbox"/> not sure <input type="checkbox"/> no
Das neue Instrument steht im kleinen <b>Z</b> immer neben dem Bad.	<input type="checkbox"/> yes <input type="checkbox"/> not sure <input type="checkbox"/> no
Im <b>R</b> ezept steht, man soll viel <b>Z</b> imt nehmen.	<input type="checkbox"/> yes <input type="checkbox"/> not sure <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> not sure <input type="checkbox"/> no

## 14 Responses

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<input type="checkbox"/>	 Dan D 10 views	Jan 20, 2021	-	-	<input type="checkbox"/> Active <input type="checkbox"/> Share <input type="checkbox"/> Actions <input type="checkbox"/> +
<input type="checkbox"/>	 Ioana V 14 views	Jan 20, 2021	<a href="#">1 Comment</a>	✓	<input type="checkbox"/> Active <input type="checkbox"/> Share <input type="checkbox"/> Actions <input type="checkbox"/> +
<input type="checkbox"/>	 Annika B 43 views	Jan 19, 2021	<a href="#">5 Comments</a>	✓	<input type="checkbox"/> Active <input type="checkbox"/> Share <input type="checkbox"/> Actions <input type="checkbox"/> +

3.

The inductive approach to  
pronunciation teaching

# Deductive vs. Inductive Learning

## Deductive

- Teacher-centered

## Inductive

- Student-centered
- More time consuming?
- Active engagement  
→ better retention

- Deductive Approach

- Learners are being given a rule → The rule is applied to the language task.

- Inductive Approach

- Guided discovery
- Learners detect rules, notice patterns, and work out the rule for themselves
- Most inductive learning presented in course books is guided or scaffolded  
→ Teacher as facilitator

# Grammar instruction

## Deductive Approach

**Eats** He **eats** a lot of pizza.  
**Plays** She **plays** tennis once a week.  
**Goes** It **goes** for a walk.

### Spelling ! Be careful !!

I take - he _____	I go - he goes
I come - he _____	I push - he _____
I see - he _____	I mix - he _____
	I do - he _____

## Inductive Approach

### 5

#### Find the rule

Look at these sentences:

You **know** Norma and Joe, don't you?

They **work** every day.

Joe **talks** to tourists, and Norma **writes** letters.

We always **go** to their travel agency.

The agency **offers** tours to many different countries.

I **like** the service there too.

► There is a final **s** on the verb only with certain subjects. What are they?

I  you  he  she  it  we  they

#### Now apply the rule!

Circle the right verb.

I **see/sees** Norma almost every day, or

she **call/calls** me. She and Joe sometimes

**come/comes** to my house on weekends.

Joe usually **tell/tells** us some funny stories.

# Deductive vs. Inductive Learning

## Deductive

- Teacher-centered

## Inductive

- Student-centered
- More time consuming?
- Active engagement  
→ better retention

- Deductive Approach

- Learners are being given a rule → The rule is applied to the language task.

- Inductive Approach

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# Pronunciation Instruction

## ACH-Laut [x] und ICH-Laut [ç]

1) Was hören Sie? Kreuzen Sie an. (What do you hear? Indicate your choice.)

	wie in „ach“ [x]	wie in „ich“ [ç]		wie in „ach“ [x]	wie in „ich“ [ç]
(1) Nacht	X		(7) möchte		
(2) nicht		X	(8) lächeln		
(3) doch			(9) lachen		
(4) Buch			(10) auch		
(5) Bücher			(11) euch		
(6) echt			(12) leicht		



2) Ergänzen Sie die Regel. (Fill in the rule.)

Nach den Vokalen \_\_\_\_, \_\_\_\_, \_\_\_\_ und nach dem Diphthong \_\_\_\_ klingt „ch“ wie in „ach“ [x].  
(After the vowels \_\_\_\_, \_\_\_\_, \_\_\_\_ and after the diphthong \_\_\_\_ „ch“ sounds like „ach“ [x].)

Nach den Vokalen \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_ und nach den Diphthongen \_\_\_\_ und \_\_\_\_ klingt „ch“ wie in „ich“ [ç].  
(After the vowels \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_ and after the diphthongs \_\_\_\_ and \_\_\_\_ „ch“ sounds like „ich“ [ç].)



# Pronunciation Instruction

3) Hören Sie, markieren Sie „**ach**“ und „**ich**“ und sprechen Sie dann.  
*Listen to the poem, then mark „ach“ and „ich“ sounds and repeat out loud.*



## Buchstaben-Pärchen

Ein C traf in der **Nacht** ein H  
 Und das sprach: „**Huch**, was **machst** du da?  
 So ganz im Dunkeln ohne **Licht**  
 Sag mal, wieso schläfst du denn **nicht**?“  
 Das C sprach: „Ich will **dich** **besuchen**.  
**Ich** habe **Brötchen** mit und **Kuchen**.  
**Ich** träume Tag und **Nacht** von dir.  
**Ich** liebe **dich** - drum bin **ich** hier.“  
**Ach**, **eigentlich** ist jedem klar,  
 dass irgendwann die **Hochzeit** war.  
 Wie bitte? Du glaubst **nicht** daran?  
 Dann schau **doch** das **Gedicht** hier an.

(Kerstin Reincke)



- Works great for rule-based pronunciation training
  - Active student engagement
- But does not lend itself to all types of pronunciation learning

# If you teach German...

- I uploaded materials for
  - ich- and ach-Laut
  - „ie“ vs „ei“ in German
  - r-sounds
  - Auslautverhärtung (final devoicing)
- You can download the activities and soundfiles here:
  - <https://tinyurl.com/y6sebjxq>

# Questions?



*Thank  
you*

A fountain pen nib, gold in color, positioned at the end of the word 'you' in the cursive text.

Contact:

[imartin@usna.edu](mailto:imartin@usna.edu)

[www.ines-martin.weebly.com](http://www.ines-martin.weebly.com)

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