Self-assessment and High Variability Phonetic Training: A Reflection on Using Them Together to Support Phonetic Learning in the L2 Classroom

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https://pronaccelerator.org/

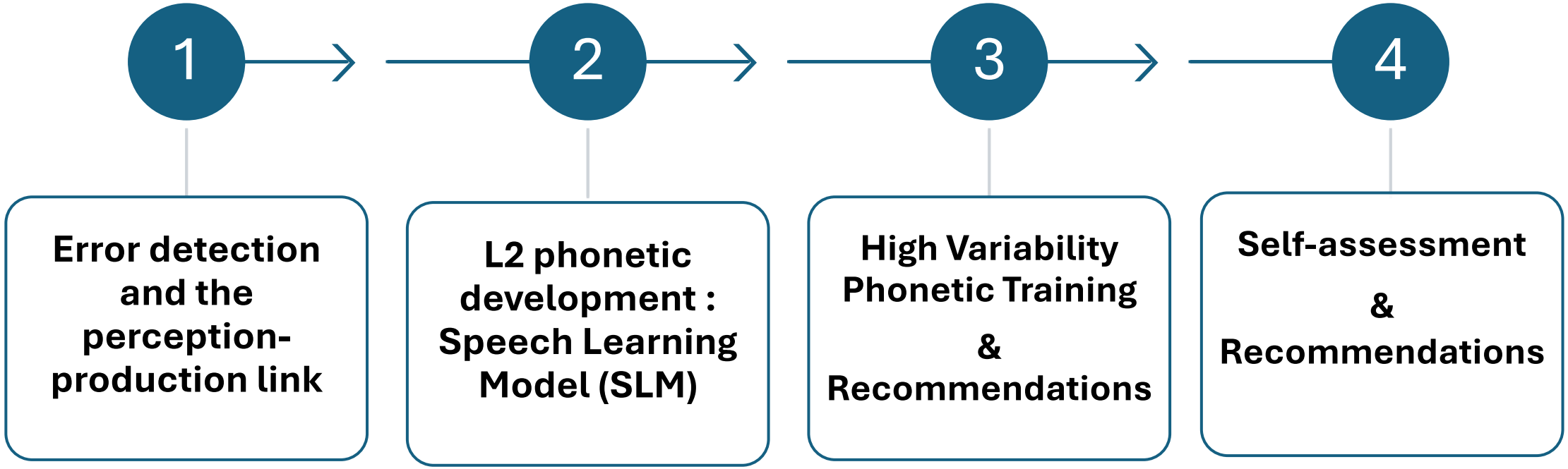
Pixel - Innovation in Language Learning, 19th Edition, International Conference

November 11-13, 2026

November 11, 2026 - Online

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Organization



Error Detection Research

- Listening to models before producing them (Celce-Murcia et al. 1996/2010, Lebel, 1990)

- Detecting L2 pronunciation errors correlates to better L2 production (Brannen, 2011; Wouters and John, 2020)

- The use of pronunciation self-assessment (S-A) :
  - learners analyze their own production critically (Lappin-Fortin & Rye, 2014)
  - an increase in learner awareness to their errors and confidence in their ability to self-monitor their L2 production (Brannen et al., 2021).

L2 Pronunciation Learner Challenges

- Learners may not always know what their pronunciation needs or teacher expectations are: (Mora, 2026)
- Learners may have difficulty:
  - identifying their weaknesses (Lappin-Fortin & Rye, 2014)
  - Identifying as many or the same errors as native speakers (Derwing, 2003; Dlaska & Krekeler, 2008; Lappin-Fortin & Rye, 2014)
- May overestimate their degree of accentedness (Tsunemoto et al., 2022).
- May have limited attentional resources (Brannen et al., 2021, 2022)

What kind of perceptual training would better inform their self-assessments in a classroom context?

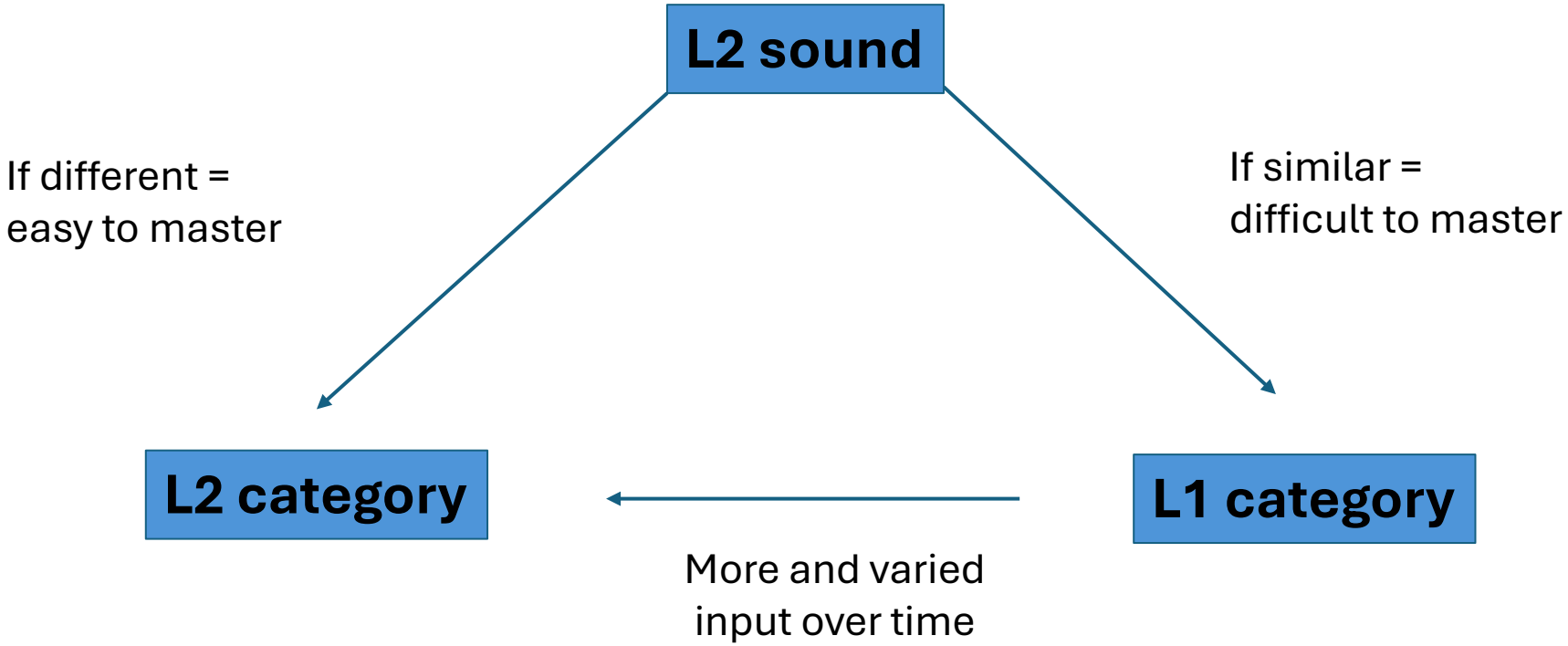
Speech Learning Model

(Flege, 1987, 1995; Flege & Bohn, 2021, pp. 13-19)

- Accented L2 production depends on how easy or difficult it is to perceptually map out non-native (NN) sounds to native (N) phonetic categories (*interlingual identification/equivalence classification*).
- The creation of new L2 phonetic categories is determined by "statistical distributions" of phonetic input in a "common phonetic space":
  - allophonic variation
  - position-dependent coarticulation
  - multiple acoustic cues that may differ from one language to another.

Speech Learning Model

(Flege, 1987, 1995; Flege & Bohn, 2021, pp. 13-19)



Learners must be exposed to phonetically rich and varied L2 input for accurate L2 phonetic categories to develop.

High Variability Phonetic Training (HVPT)

(Iverson et al., 2005)

- **Goal** : to facilitate generalization of perceptual learning to new contexts and unknown speakers
- **Definition**: An L2 research paradigm in perception training
  - « numerous samples, produced by multiple talkers, in varied phonetic contexts » (Thomson, 2018, p. 209)
- **Laboratory results**:
  - significant improvement for adult learners in perception and production (Barriusco & Hayes-Harb, 2018; Thomson, 2018)
  - moderate-to-large correlations between perception and production gains (Uchihara et al., 2024)
- **Popularity**:
  - underrepresented in action research (Barriusco & Hayes-Harb, 2018; Thomson, 2018)
  - unknown among L2 pronunciation teachers (Barriusco & Hayes-Harb, 2018; Thomson, 2018)

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High Variability Phonetic Training (HVPT)

(Barriusco & Hayes-Harb, 2018; Thomson, 2018; Uchihara et al., 2024)

Tasks

- Discrimination (AXB)
- Target Identification

Talker Variability

- Familiar or unfamiliar voices
- Single (intratalker variability) or multiple talkers
- Human vs synthesized/acoustically modified) voices

Input Variability

- Phonetic context
  - Initial, medial, final position in a word
  - isolated words or carrier sentences
- Real or nonsense words

High Variability Phonetic Training (HVPT)

- Recommended for individual, supplemental practice (Mora, 2026, Thomson, 2018)
- Focus on form, interactivity and immediate feedback (Barriusco & Hayes-Harb, 2018)
- Instead of certain technologies like Praat (Thomson, 2018; O'Brien et al. (2018)
- Gaming apps (Saito et al. 2022) and existing resources (Thomson, 2012-2026)

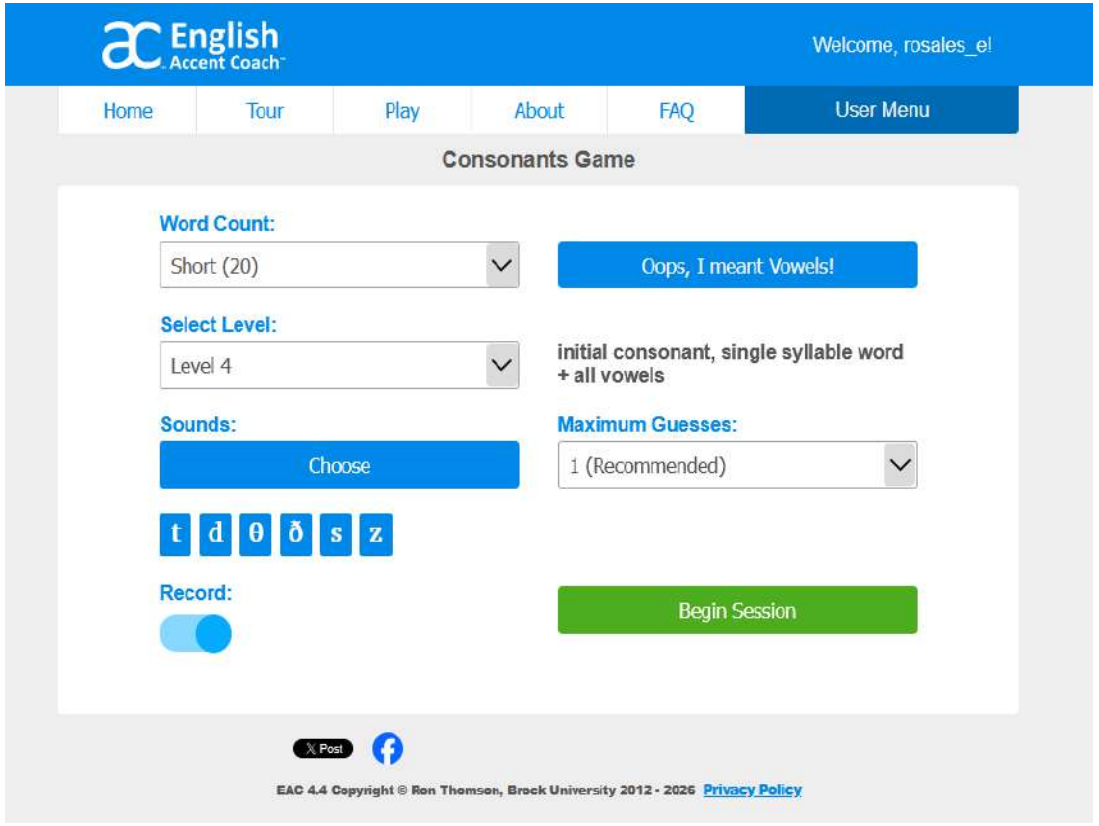
HVPT Development: Recommendations

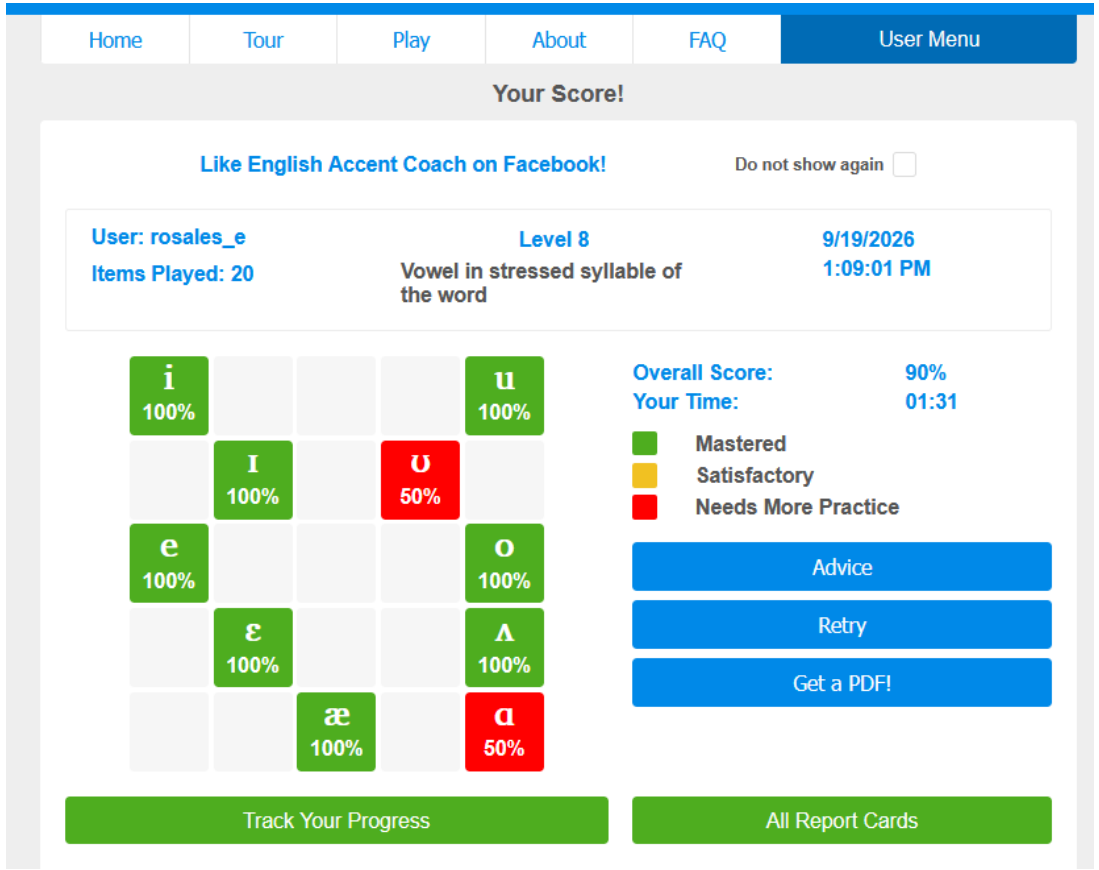
- Audio file validation by native or high-proficiency speakers
- Forced choice target identification tasks (FCID) instead of AXB tasks (Thomson, 2018)
- Learning management systems (LMS) : Moodle
  - Large amounts of content
  - Multiple tries
  - Customizable feedback
  - **Certainty-based marking/Confidence ratings** (Kartushina et al., 2022; Moodle, 2025).
- Adaptation to learner ability : low processing demands (Barriusco & Hayes-Harb, 2018)
- Multimodal processing: tactile, visuomotor, etc. (Saito et al., 2022)

English Accent Coach

(Thomson, 2012-2026)

https://www.englishaccentcoach.com/





Screenshots: Emily Rosales

Forvo

fr.forvo.com/languages/

Languages

Complete language list & codes

These are the languages with pronounced words. Order by popularity | alphabetically

Languages with more than 100,000 pronunciations

Tatar [tt] German [de] Russian [ru] Spanish [es]
English [en] French [fr] Japanese [ja] Polish [pl]
Dutch [nl] Mandarin Chinese [zh] Portuguese [pt]
Italian [it] Ancient Greek [grc] Swedish [sv] Turkish [tr]
Arabic [ar] Catalan [ca] Hungarian [hu] Ukrainian [uk]
Korean [ko] Czech [cs]

English pronunciation dictionary

Search and learn to pronounce words and phrases in this language (**English**). Learn to pronounce with our guides.

Search for a word in English | Accent

Accent
British
American
Other

English: Usef

Essentials

- Greetings and apologies
- Places
- Banking

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Youglish.com



Master English pronunciation naturally! Learn how to pronounce tricky sounds like a native with YouGlish's real-world clips. No more dictionary confusion, just real English in context.

Examples: power, courage, coup de grâce, how's it going? (Advanced search)

Self-assessment (S-A)

- Formative assessment : a way to engage students in reflective analysis (Noonan & Duncan, 2005)
- “a descriptive and evaluative act carried out by the student concerning his or her work and academic abilities” (Brown & Harris, 2013, p. 368)

Advantages of L2 Self-Assessment

For teachers

- Improved classroom time management and workload (Jamrus & Razali, 2019)
- More accurate tracking of student progress (Jamrus & Razali, 2019)

For students

- More active and informed participation in their own L2 learning (Kiely, 2018)
- Less anxiety when being evaluated → more challenging tasks → critical thinking (Jamrus & Razali, 2019)

Recommendations for Self-assessment

- Learner needs (Celce-Murica et al., 1996/2010; Kenworthy, 1990; McGregor & Reed, 2018)
- Short – and long- term goals and identity (Foote & Trofimovich, 2017)
- Meaningful L2 human interactions in a variety of contexts outside the classroom, where exposure to unfamiliar voices which vary by L1, age, gender, and socioeconomic class
- Observations from HVPT for error detection:
  - Where the most common errors occurred
  - How similar or different the sounds seem to those in their L1
  - How many repetitions were needed to pass a perception task
  - What acoustic cues they were anticipating

Recommendations for Self-assessment

(McGregor & Reed, 2018)

- Pronunciation self-assessment is a skill that needs to be taught explicitly designed and scaffolded:
  - The value of S-A as well as teacher expectations of the task (assessment criteria) should be clarified and practiced through benchmarking activities and open discussions (Tsunemoto et al., 2022).
  - Baseline read-aloud & open-ended samples that the learner and teacher rate (Derwing & Munro, 2015)
  - Periodic (Tsunemoto et al., 2022) or weekly evaluations (Brannen et al., 2022) with ample teacher feedback (Kiely, 2018).
  - Checklists then open-ended reflections -> learner autonomy

Effective Self-assessment

(Harris & Brown, 2018)

Criteria and Feedback

- Well-structured and frequent self-assessment
- Clear expectations, guidance and feedback

Nuanced understanding

- Ability to identify and improve on specific aspects

Improved outcomes

- Cycle of self-regulated learning (Zimmerman, 2008)
- Better adaptive learning strategies
- Learner autonomy and empowerment

Concluding remarks

- Potential action research and improved classroom intervention with HVPT and S-A.
- More questions:
  - How long or involved should self-assessment tasks or HVPT training modules be to have minimal effectiveness ?
  - How many voices per target?
  - How can HVPT training be adapted for different L1 profiles according to perceptual ease or difficulty of certain target sounds?
  - Can AI be used?
  - Peer assessment? Other tools and strategies?

Acknowledgements

Faculté de communication

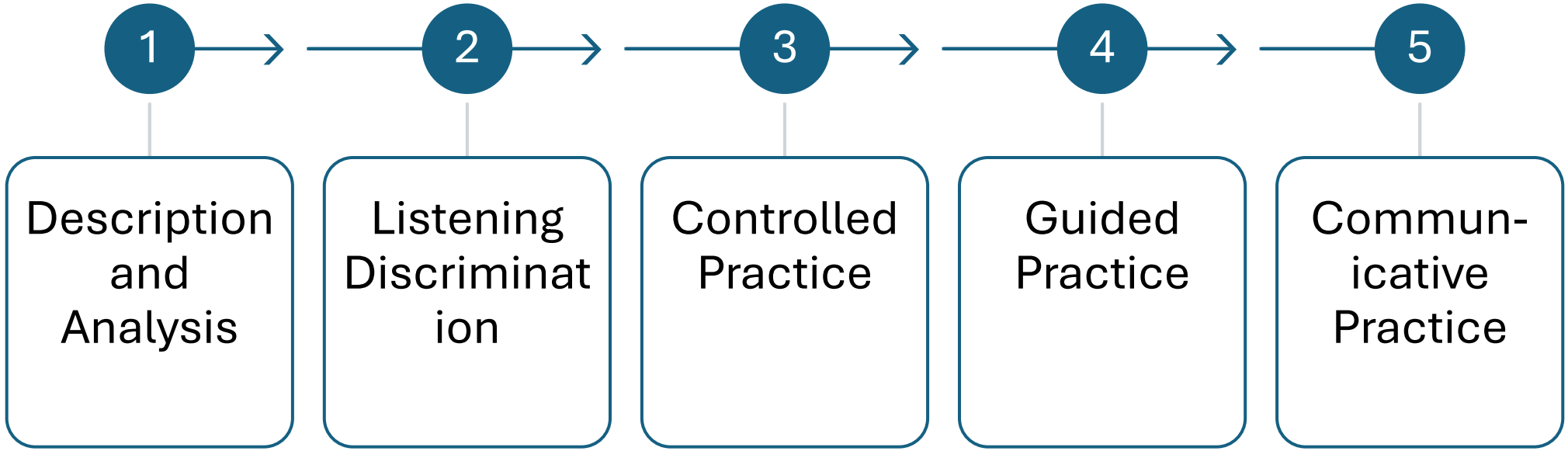
- This project received financial support through the *Appui au développement du volet Recherche* program
- Kathleen Brannen
- Paul John

Pronunciation Research Accelerator

- Charlie Nagle
- Amanda Huench
- Pavel Trofimovich
- Ryuichi Suzuki (area expert)

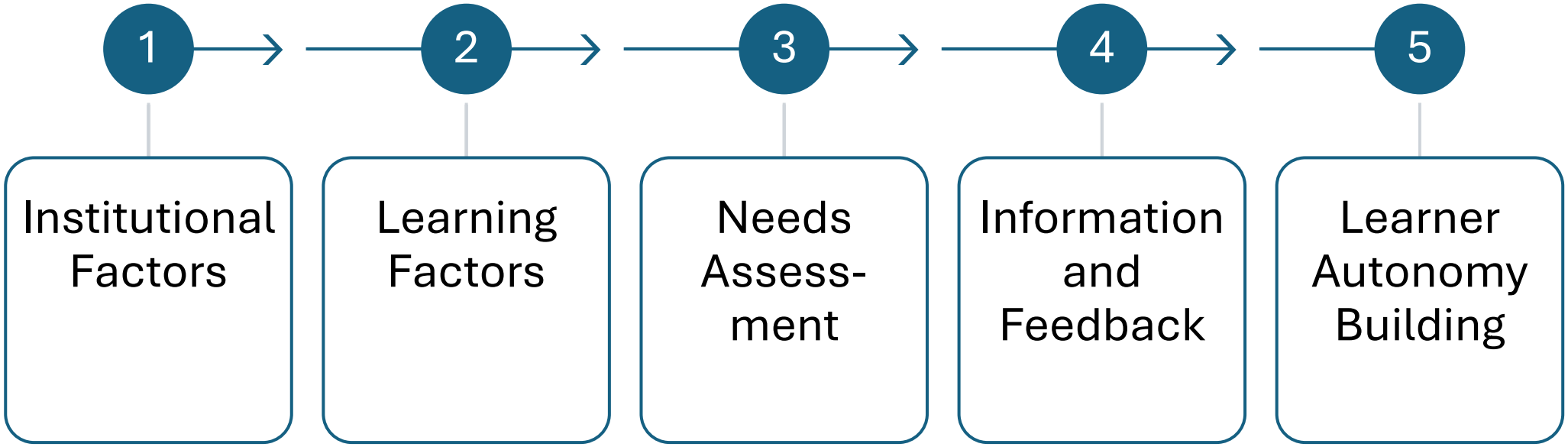
(From the Q & A part) Communicative Framework

(Celce-Murcia et al., 2010)



(From the Q & A part)
Pronunciation Integration Framework

(McGregor & Reed, 2018)



Thank you!

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