**Context**

Down Syndrome
- Genetic disease
- Motor issues
- Anatomic abnormalities

Low intelligibility
- Perception vs. Production
- Dysarthric / DS speech

Kent & Vorperian (2013); Bunton et al. (2007)

**How could intelligibility be improved?**

Perceptual Learning (PL)
- Quick
- Natural
- Aligned with accentuated or dysarthric speech

Familiarization task induces PL efficiency

Listening task < Imitation task

Adank et al. (2010); Borrie et al. (2012)

**Experimental design**

**Speaker**

1 young adult with Down Syndrome selected from a previous intelligibility test (<70%)

**Stimuli**

Total of 350 words selected from a French word database (New et al., 2001 – Lexique v.3.81)

- **Familiarization set**
  - Balance of phonemes occurrence

**Trials**

**Familiarization phase**

Stimulus → Imitation → Written Feedback

- Familiarization task: 150 words
- Post-Test task: 100 words

**Test phase**

- Test SET1/SET2
  - 20 phonological contrasts
  - At least 3 minimal pairs

**Predictions**

- No improvement in Baseline

**Improvement**

- The participant should learn from the feedback how the speaker produces speech sounds relevant for French

**Stronger improvement**

- Attention bias: double repetition (speaker and own)
- Motor involvement

**Adank et al. (2010); Borrie et al. (2015)**