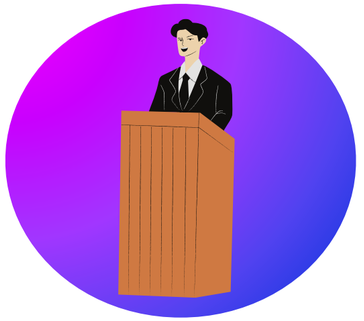


Virtual Reality : A tool for Training Fluency in Public Speaking ?

Lamia Bettahi – Angélique Remacle – Anne-Lise Leclercq

12th European Speech and Language Therapy Congress ○ 26 – 28 septembre 2024

Public Speaking

- **Skill required in many personal and professional settings**
- **One of the most feared activities**

Impact oral communication and speech fluency

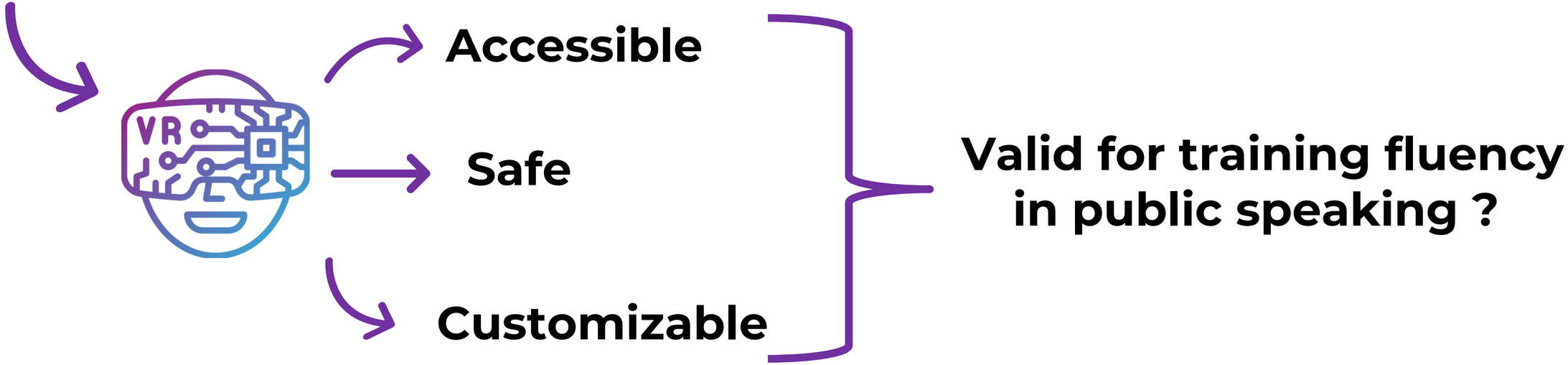
Influence audience’s perception

Career success, reputation and credibility

Arsalan et al., 2021 ; Ferreira Marinho et al., 2017 ; Niebuhr et al., 2018 ; Van Ginkel et al., 2015 ; Wörtwein et al., 2015

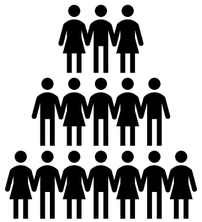
Public Speaking Training

- **Public speaking skill can be acquired**
- **Complex to implement in real life**



Breaky , 2005 ; Brundage & Hancock, 2015 ; Menjot et al., 2023 ; Morreale & Pearson, 2008 ; Kaplan et al., 2021 ; St-Jacques et al., 2007 ; Wallach et al., 2009

Methodology



65 students

38♀ 27♂

Liebowitz Social Anxiety Scale

Stait-Trait Anxiety Inventory

Personal Report of Confidence as a Speaker

Methodology

65 students

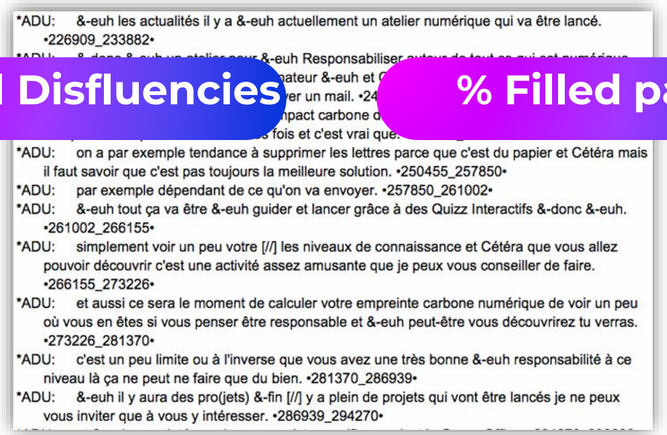
38♀ 27♂

Real Audience (Real)

Virtual Audience (Virtual)

Virtual Empty (Empty)

Hypotheses

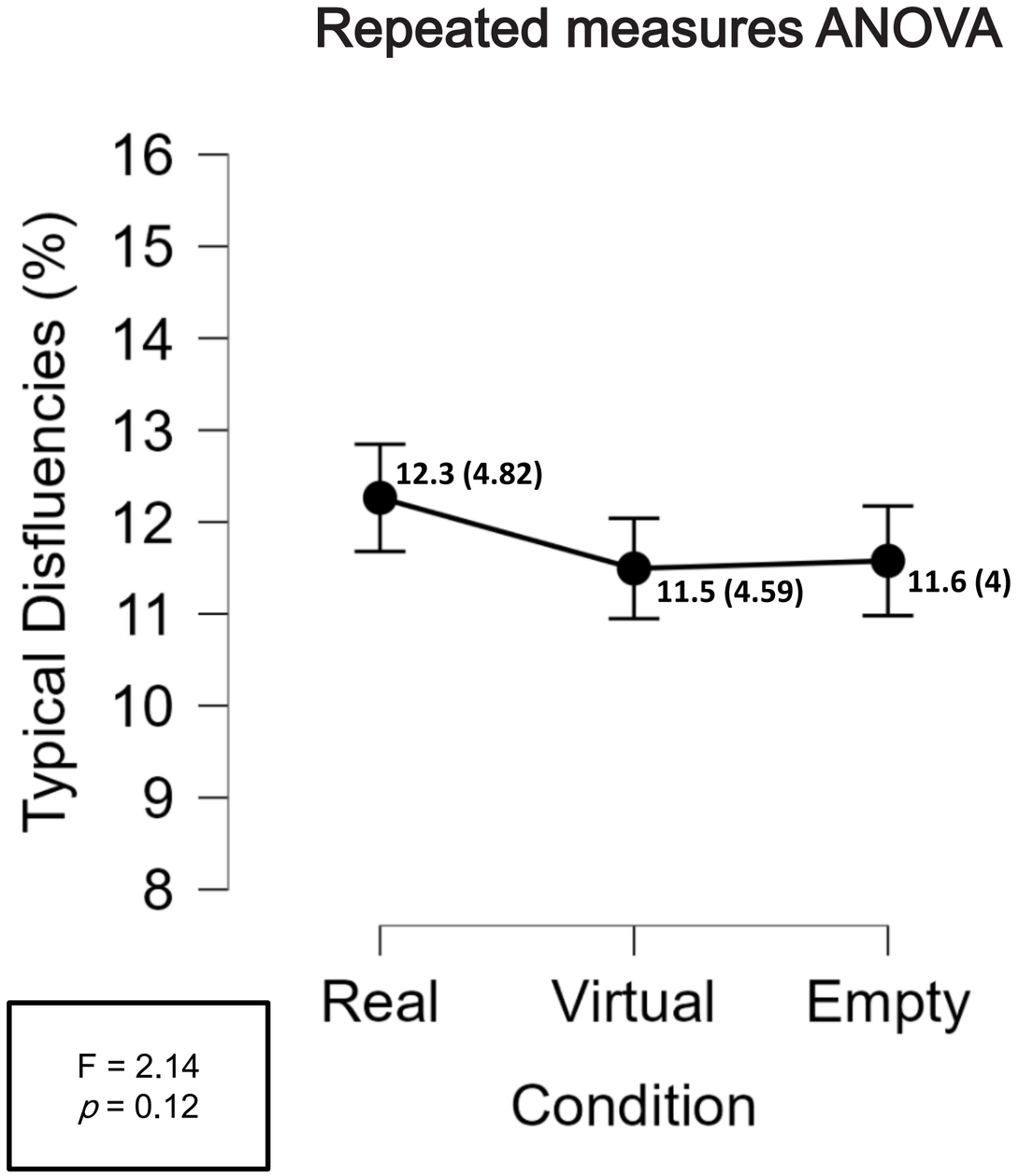

*ADU: &-euh les actualités il y a &-euh actuellement un atelier numérique qui va être lancé. •226909_233882•
*ADU: on a par exemple tendance à supprimer les lettres parce que c'est du papier et Cétéra mais il faut savoir que c'est pas toujours la meilleure solution. •250455_257850•
*ADU: par exemple dépendant de ce qu'on va envoyer. •257850_261002•
*ADU: &-euh tout ça va être &-euh guider et lancer grâce à des Quizz Interactifs &-donc &-euh. •261002_266155•
*ADU: simplement voir un peu votre [//] les niveaux de connaissance et Cétéra que vous allez pouvoir découvrir c'est une activité assez amusante que je peux vous conseiller de faire. •266155_273226•
*ADU: et aussi ce sera le moment de calculer votre empreinte carbone numérique de voir un peu où vous en êtes si vous penser être responsable et &-euh peut-être vous découvrirez tu verras. •273226_281370•
*ADU: c'est un peu limite ou à l'inverse que vous avez une très bonne &-euh responsabilité à ce niveau là ça ne peut ne faire que du bien. •281370_286939•
*ADU: &-euh il y aura des pro(jets) &-fin [//] y a plein de projets qui vont être lancés je ne peux vous inviter que à vous y intéresser. •286939_294270•

% Typical Disfluencies

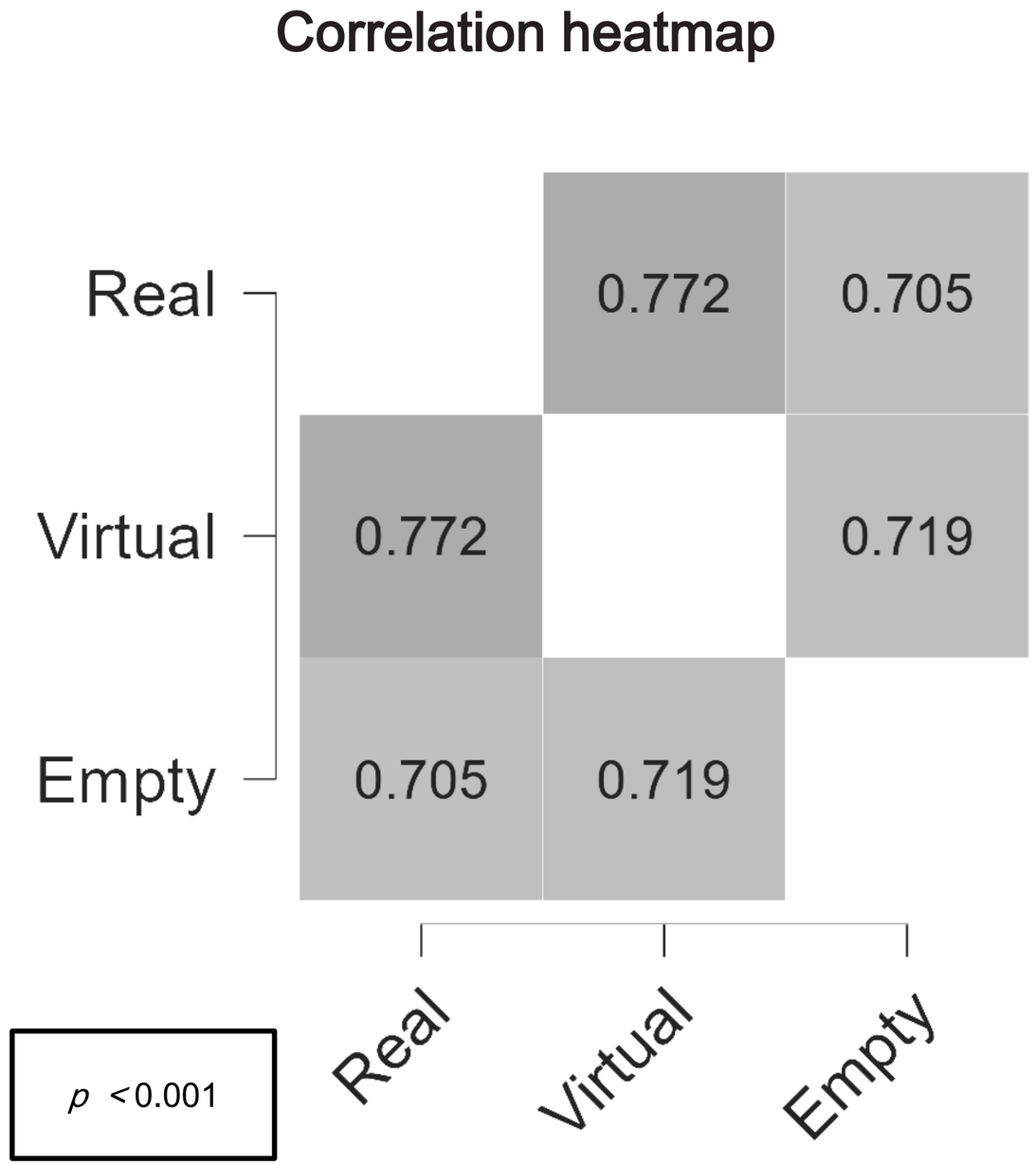
% Filled pauses

Repeated measures ANOVA (post hoc tests) + Correlations

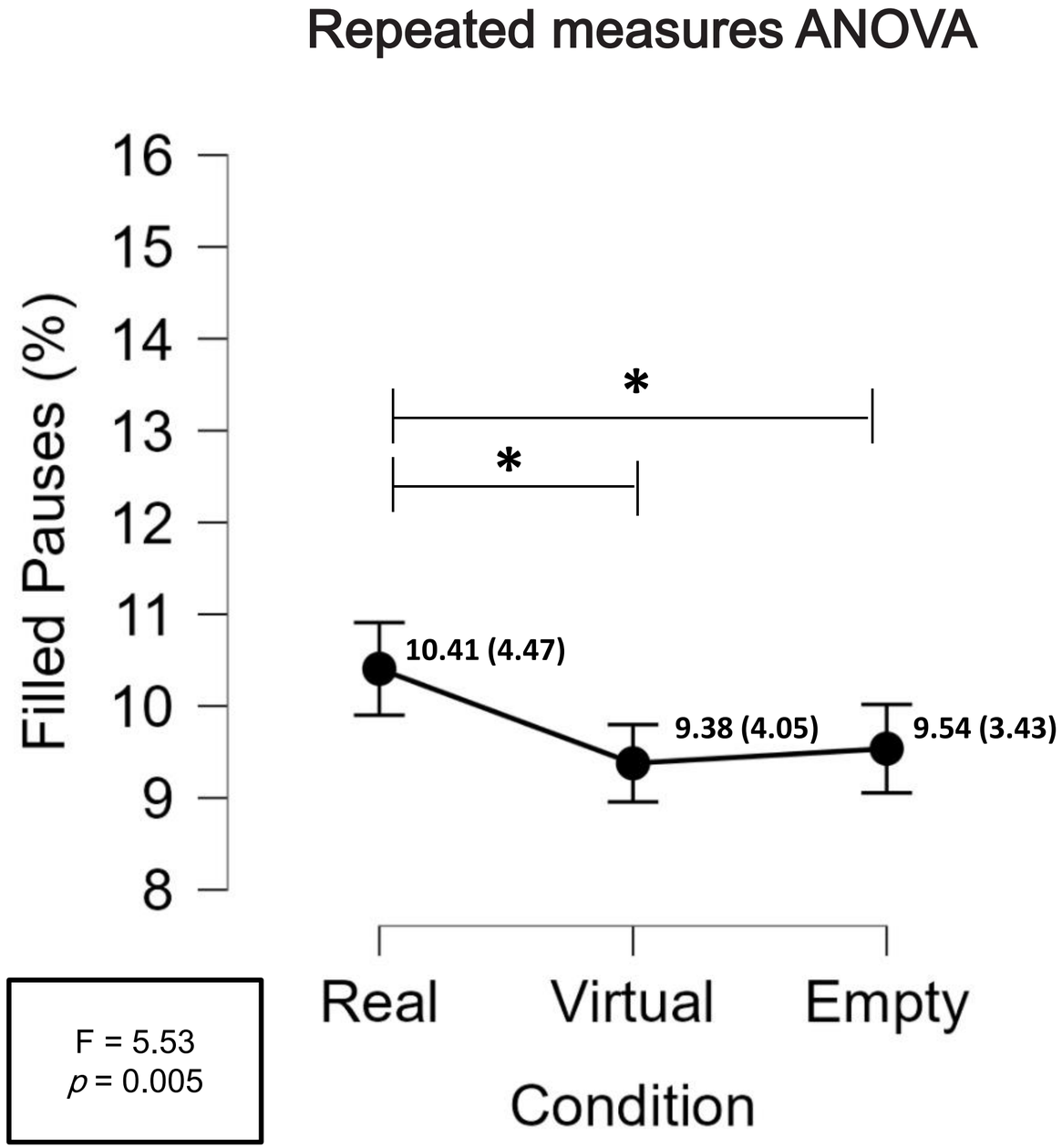
Typical Disfluencies



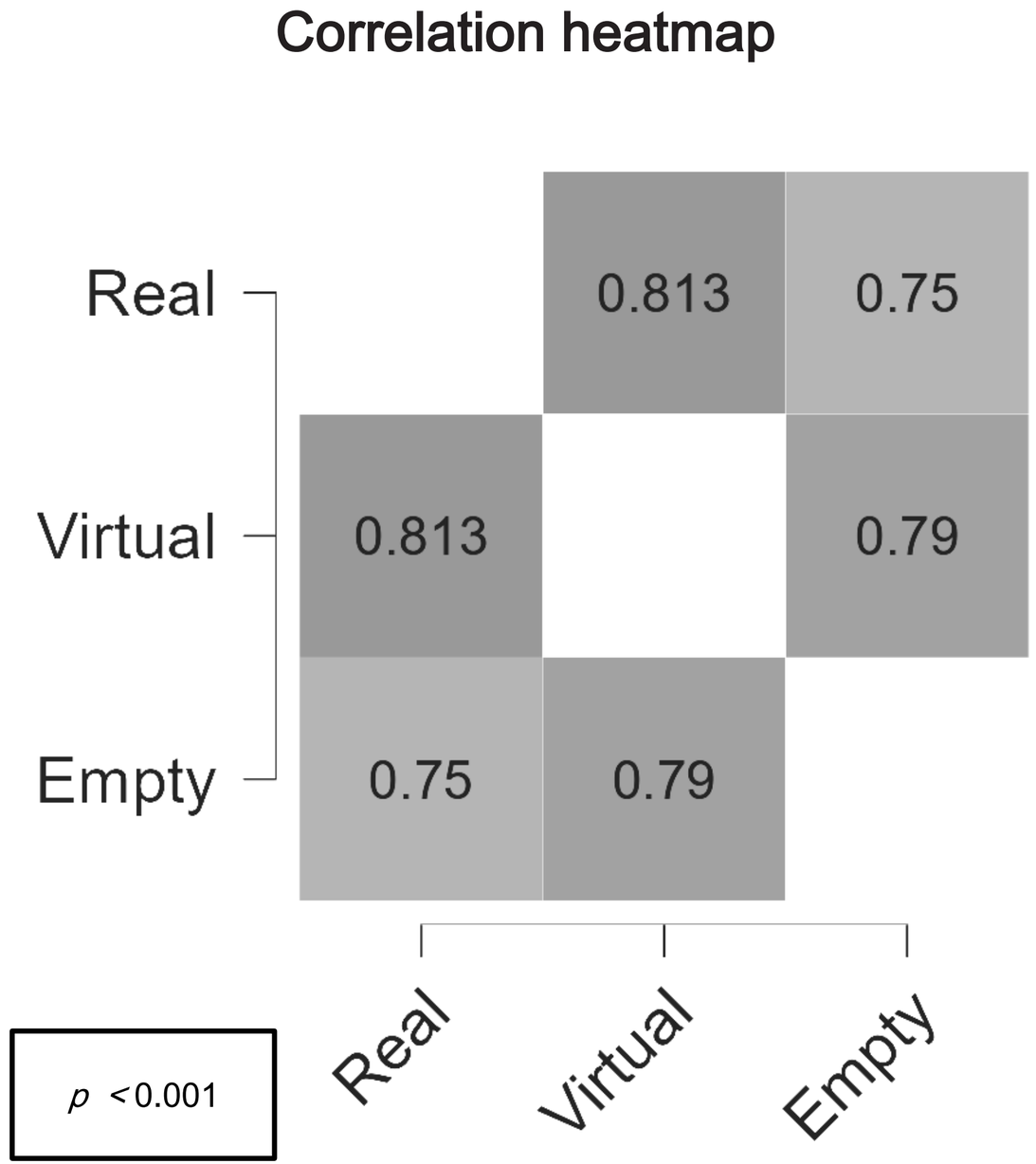
Typical Disfluencies



Filled Pauses

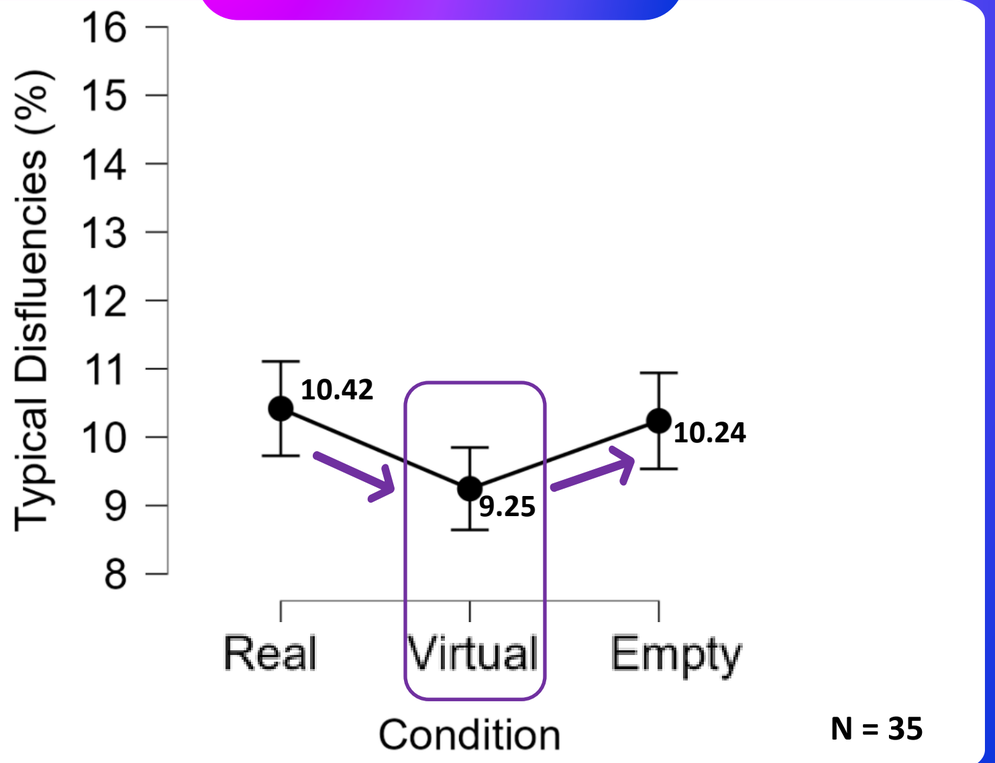


Filled Pauses

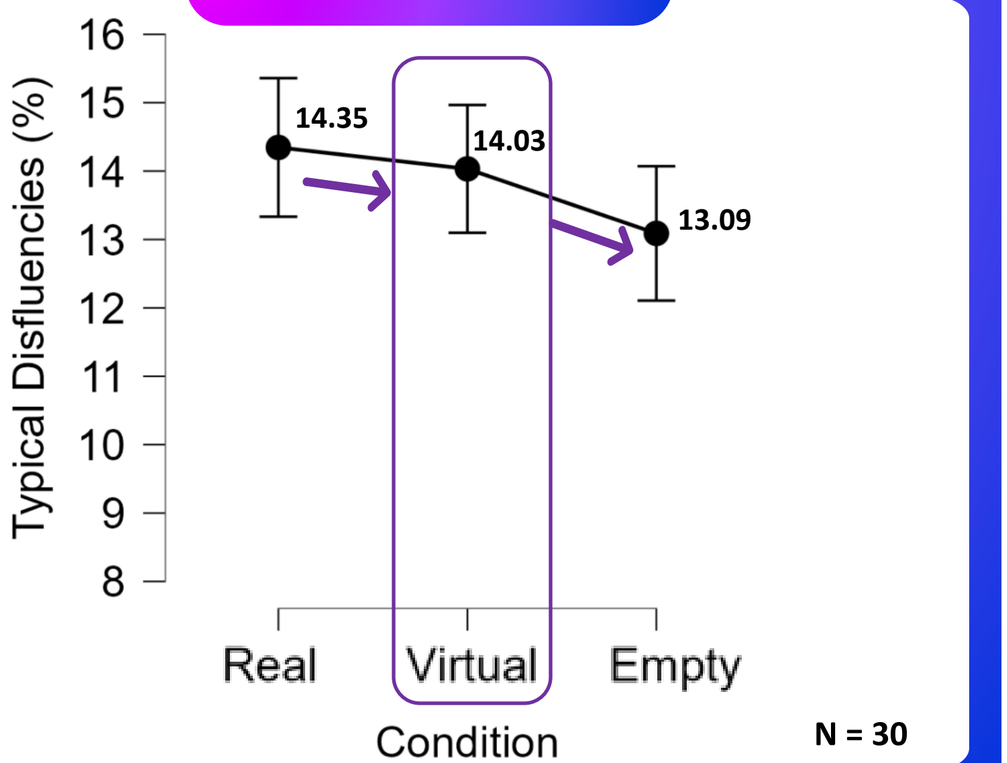


Group Analysis

Group 1



Group 2

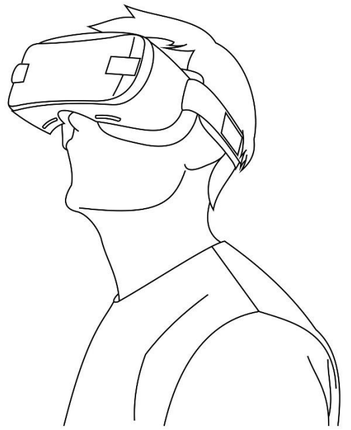


Majority of women with high anxiety levels

Felnhofer et al., 2014 ; Ling et al. , 2014

Conclusions

- **VR elicit fluency characteristics related to public speaking**
  - **Variations according to speaker profile**
- **VR could be a useful tool for public speaking training**
- **Further intervention studies are required**
- **Public speaking training = role of the SLP**



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Thank you

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