

Validation of a virtual audience for public speaking: Preliminary results

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Aims : validation of a virtual audience for public speaking by assessing its qualities and its ability to elicit emotional and behavioral reactions

BACKGROUND

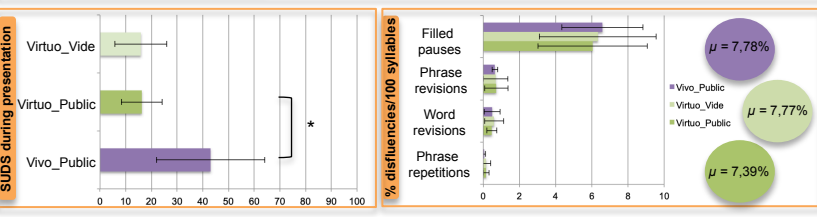
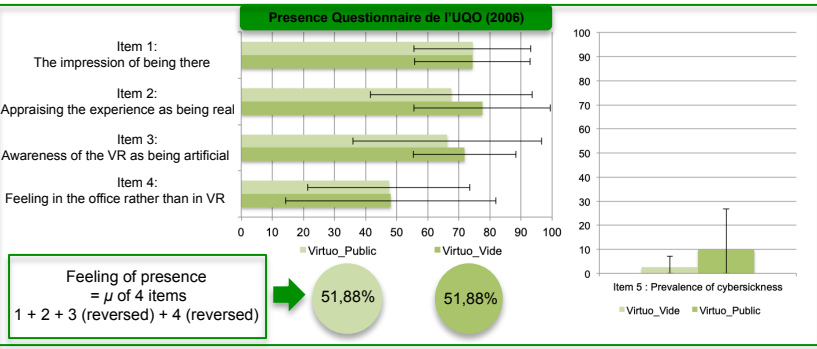
Public speaking

- Important skill in many professions and in academic settings¹
- Influences the speaker's success and credibility²
- One of the most feared activities.
- Communication apprehension impacts oral communication³ and speech fluency⁴

While the literature highlights the benefits of public speaking training, it's complex to implement in real life⁴

Virtual reality (VR) could be a relevant tool. However, a successful virtual experience depends on the sense of presence and the cybersickness

RESULTS



METHODS

oral presentation (5 min) 3 counterbalanced conditions

40 participants

without anxiety and fluency disorder

SESSION 1

- Questionnaires**
 - ✓ LSAS-SR
 - ✓ PRCS
 - ✓ BFNE-S
 - ✓ Immersive Propension (QPI)
- Vivo_Public**
 - ✓ Mastery of presentation
 - ✓ Oral presentation
 - ✓ SUDS (3x)
 - ✓ QP-UQO adapted
- Baseline Questionnaire**
 - ✓ SSI-4
 - ✓ STAI-Y-T
- Virtuo_Vide**
 - ✓ Mastery of presentation
 - ✓ Oral presentation
 - ✓ SUDS (3x)
 - ✓ QP-UQO
- Virtuo_Public**
 - ✓ Mastery of presentation
 - ✓ Oral presentation
 - ✓ SUDS (3x)
 - ✓ QP-UQO

5 min. break

SESSION 2

Analysis

	Speech	Emotions	Quality of VR
Measures	Speech disfluencies Silent pauses	Anxiety level (before, during & after the oral presentation)	Feeling of presence Cybersickness
Tools	Computerized Language Analysis (CLAN)	Subjective Units of Distress Scale (SUDS)	Presence Questionnaire (QP-UQO)

C#VID-19
Pre-tested on 8 participants
Absence of counterbalancing

DISCUSSION

This pilot study is the first step of a long term project. It highlights positive results such as:

- a sufficient feeling of presence
- the lack of cybersickness

These results suggest that this virtual audience seems to be a relevant tool

This study also highlights elements requiring improvement such as:

- the realism of the virtual audience (their physical and behavioral characteristics, have now been improved by the research team)
- methodological limits (small sample, absence of counterbalancing conditions, repetition of the same presentation)
- the need to statistically confirm the ecological validity of this virtual audience

References

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