

Willingness to communicate : can  
virtual reality help ?



Photo by [Eva Blue](#)

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# OUTLINE



Context



Literature  
review



Material and  
methodology



Preliminary  
results &  
discussion



## Sociolinguistic portrait of the learning context:

- Montreal : bilingual metropolis
- McGill : anglophone university located in downtown Montreal
- Anxiety due to the *Montreal switch* (Geogrey-Smith, 2017)
- A regional variety of oral French



## Context

→ Low willingness to communicate (WTC) in L2 French outside of the classroom

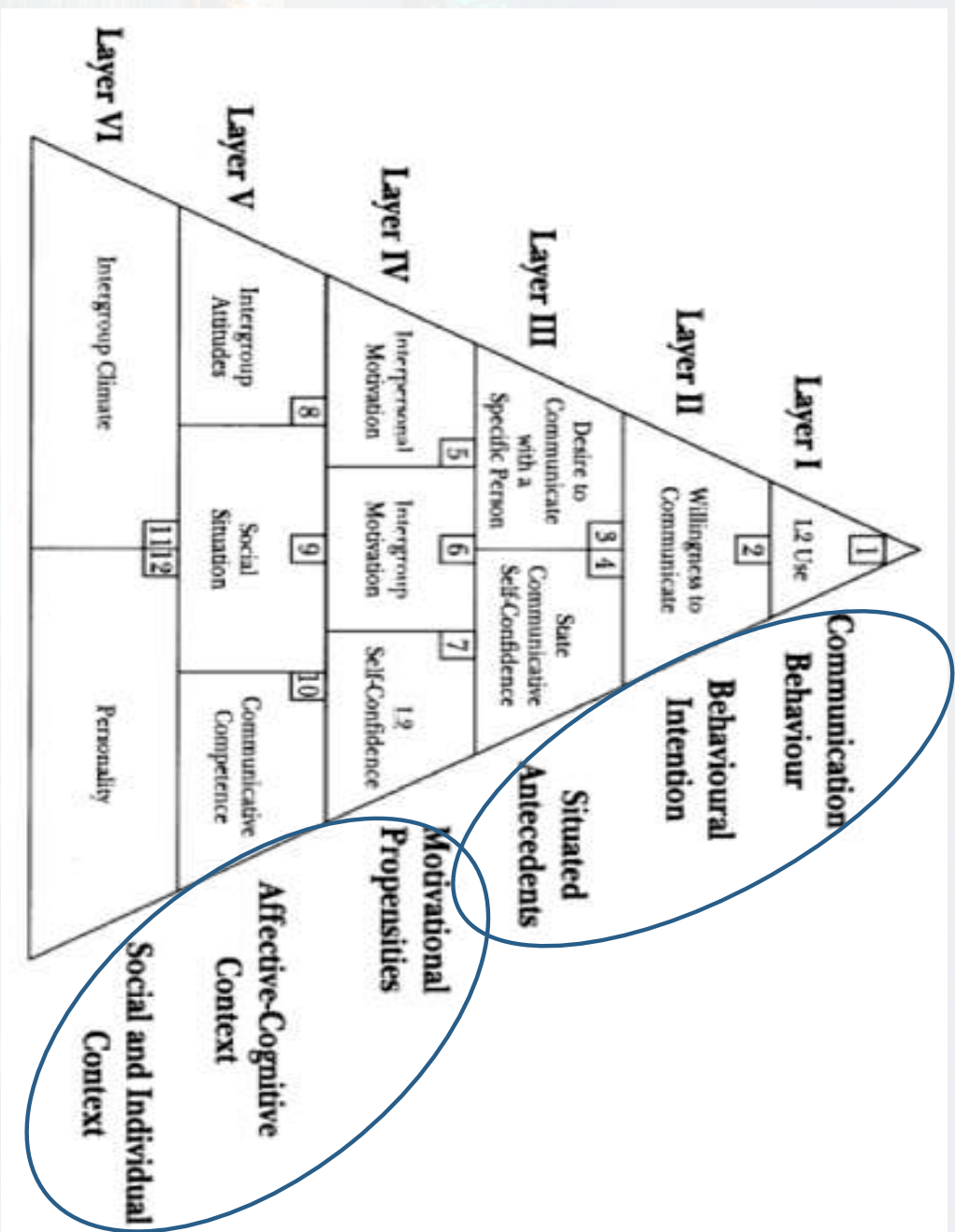


**Question :** how can we promote L2 communication and L2 WTC outside of the classroom in the Montreal context?

# The WTC pyramid (MacIntyre et al., 1998)



Literature review



Situated variables

Stable variables

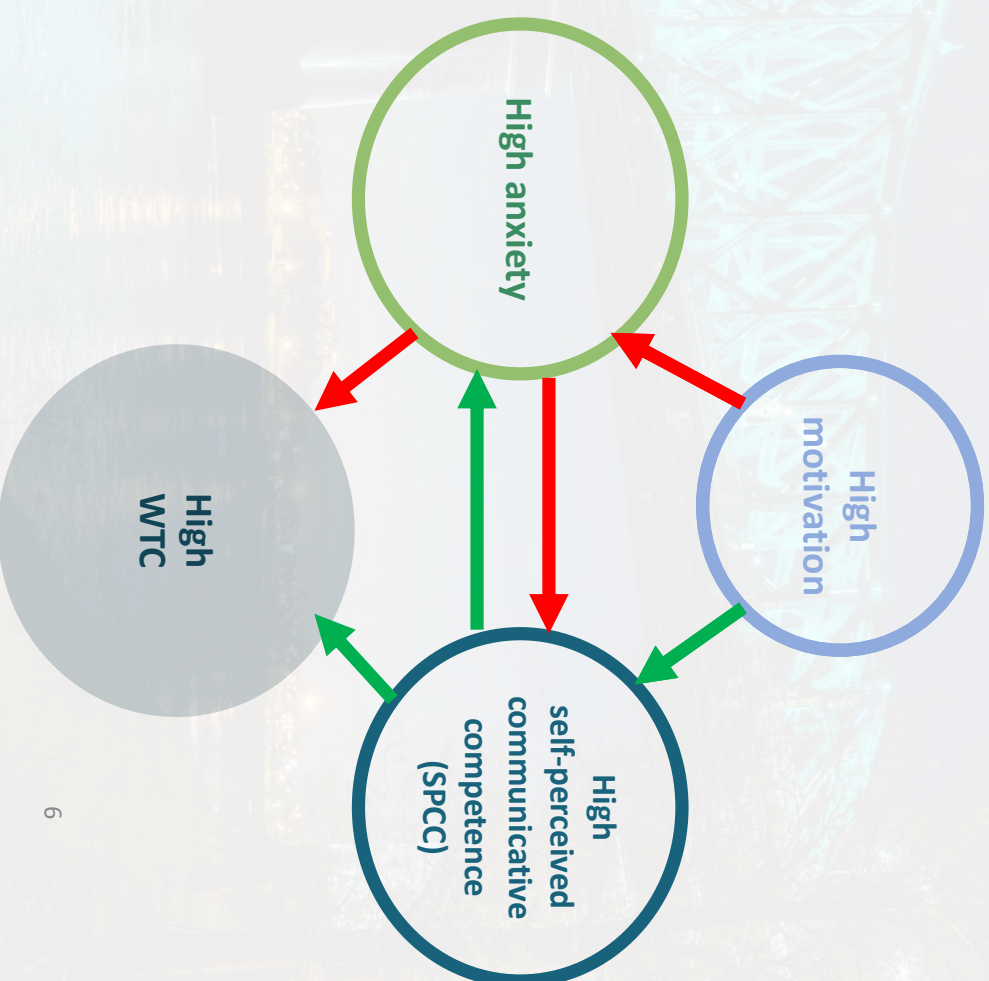


# The variables of L2 WTC



→ Negative Correlation

→ Positive Correlation





**Gap in the literature** : Few studies have actually looked at how to develop material in order to increase WTC (MacIntyre et Gregersen, 2013)

So, what about virtual reality (VR) ?

## Why use VR in the L2 classroom ?

- Authentic simulation : immersive aspect, interaction with virtual environment, SCMC (Sadler, 2017)
- Helps lower anxiety (Grant et al., 2013) by providing “non threatening” environments for L2 practice (Rankin et al., 2006)

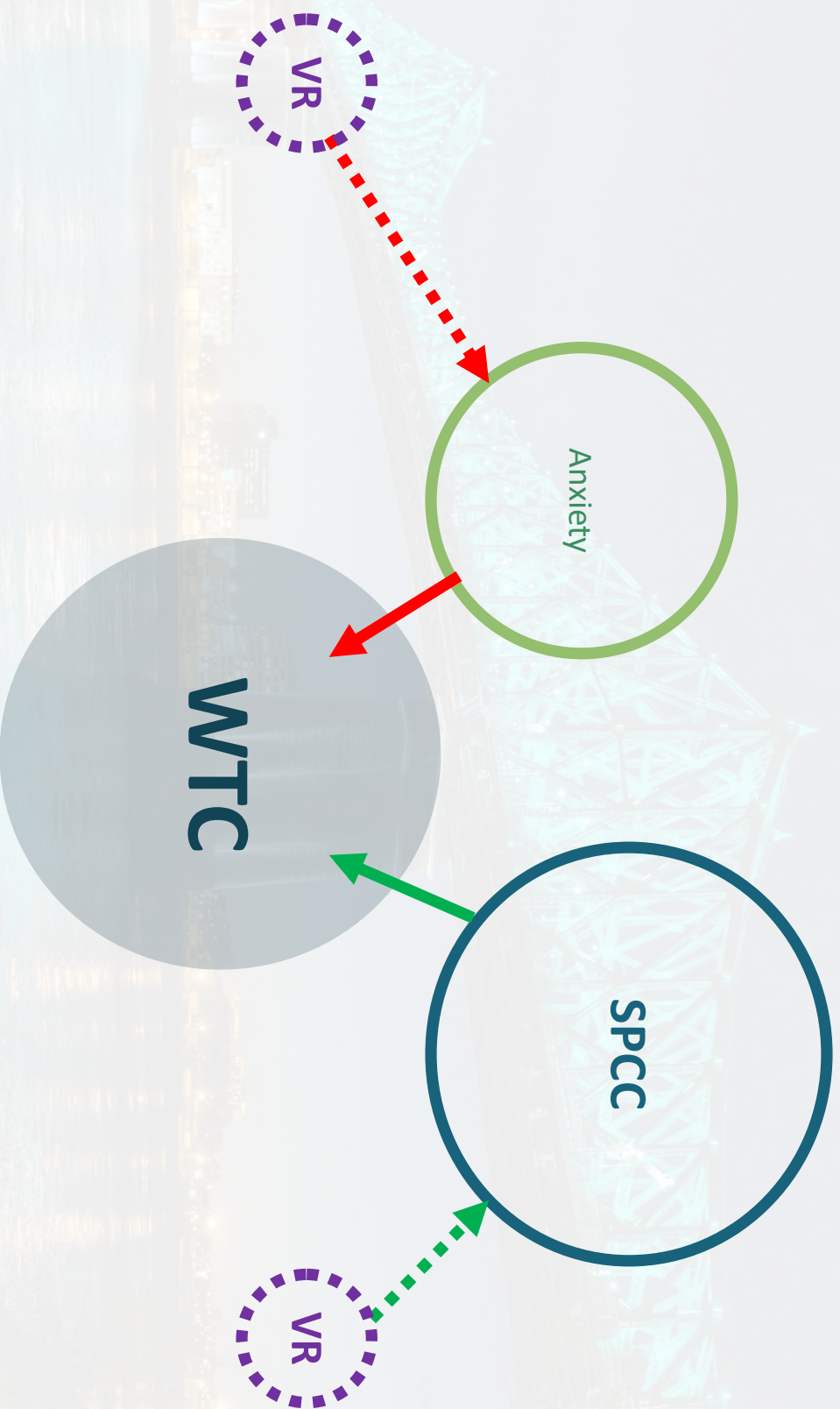


→ VR as the potential to develop communicative competence and SPCC while lowering anxiety



## Research hypothesis

VR communicative tasks could impact WTC.

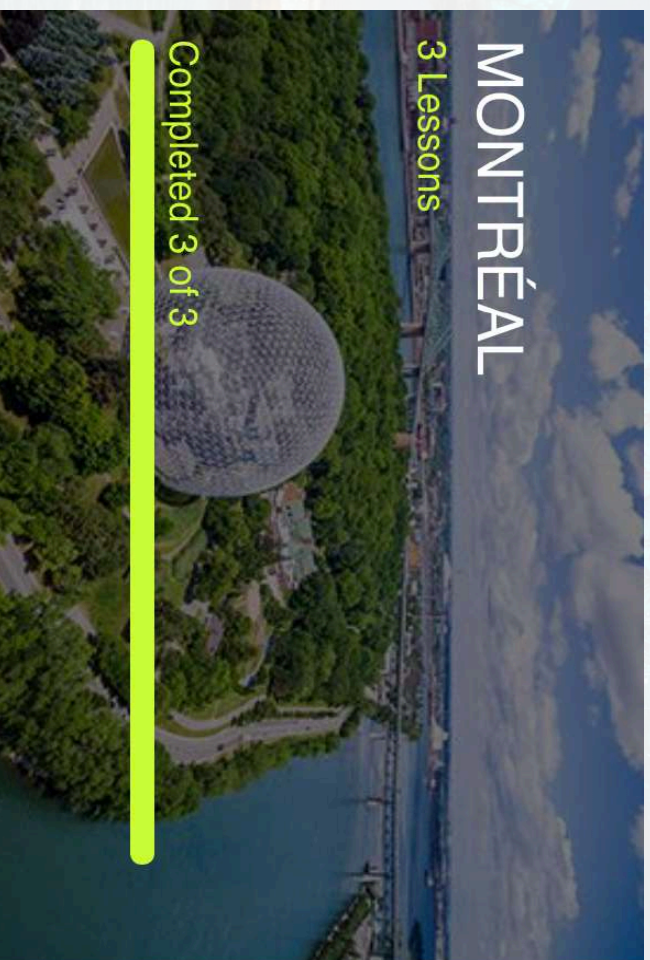


## Description of the VR material : [Immerseme.co](https://Immerseme.co)

- 360 videos shot in the real world
- Speech recognition (Google API)
- 3 scenarios



Material and methodology



▶ BEGINNER  
Grocery Store: Paying at the check out

▶ BEGINNER  
Bar: Ordering at a happy hour (5@7) event

▶ BEGINNER  
Café: Ordering a hot drink



# Immerseme : How does it work?



The screenshot displays the ImmerseMe interface. At the top, the ImmerseMe logo is shown next to the text "ImmerseMe / French / Café: Commander une boisson ch...". Below this, a virtual scene of a cafe is visible, featuring a barista behind a counter and several digital menu boards. A large white play button is centered over the scene. At the bottom, there is a navigation bar with a "Feedback" button, a globe icon, a document icon, a mute icon, and a volume icon. The bottom right corner shows the text "Hi there, Kevin (12pts.)" and a hamburger menu icon. In the bottom left corner, there are icons for a speech bubble and a hand, and the number "11" is displayed.



## **Participants :**

- N=19
- Undergraduate students taking an elective French course in Montreal
- Level: A2
- L1 : mandarin (n=6) and English (n=5), among others



## Procedure :

Intervention : 3 simulation tasks mediated by VR

### Data collection tools

Pre-test/Posttest : WTC, anxiety, SPCC ( $\alpha = .80$  /  $\alpha = .86$  /  $\alpha = .93$ )

Reflective journals

Focus groups: 4 x 3-6 students



# Procedure :



Pre-test



Journal 1



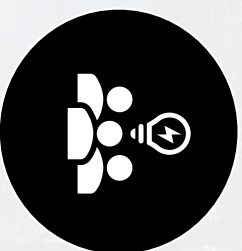
Journal 2



Posttest



Journal 3



Focus  
groups



## General evolution of WTC, L2 anxiety and SPCC :

Paired t-tests: statistically significant difference for the 3 variables:

	Pre-test	Posttest
WTC	M=2.87, SD =.80	M=3.47, SD=.77
Anxiety	M=2.65, SD=.68	M= 3.10, SD=.78
SPCC	M=3.27, SD=.60	M= 3.78, SD=.66



Preliminary  
results

T(18)=-3.14, p<0.05  
T(18)=-2.38, p<0.05  
T(18)=-3.93, p<0.05

## Initial reaction from the participants (simulation 1)

- **Positive (88%)** : “it felt comfortable” ; “it mimicked an activity we all perform quite frequently” ; “it was helpful”
- **Neutral (12%)** : sometimes felt easier than in the real world (even “too easy”)



→ Activity well-received

## Subsequent reactions (simulations 2 et 3)

- Quick familiarization as to how the online platform works
- Self-reported improvement in listening and pronunciation : “it made me realize how words are pronounced and made me a bit more confident”
- Less negative perception of errors (for some) : “I think the trouble before was about making grammatical mistakes. However, I figured that you’re going to have to make these mistakes now, so you can actually improve later on”



- Wish to transpose newly acquired skills into the real world: “I would like to see if my [VR] performance translates to a real experience”

→ Self-reported increase in L2 WTC (65% of the participants) : “I think that if I practice with this simulation and a variety of others like it, my willingness to order in French would increase with time”



## Perceived degree of realism of the VR simulations



- **Highly realistic (44.5%)** : “I think they are **exactly like the real life** situations that I’ve been in. Now, I am just more prepared for them”
- **Realistic (22.25%)**: “I think they are **good enough** »
- **Rather realistic (22.25%)**: “there may be some changes in the conversation in the real situation”
- **n./ a. (11%)**

→ Simulations seem to match with the situations L2 learners can experience/have already experienced in the real world

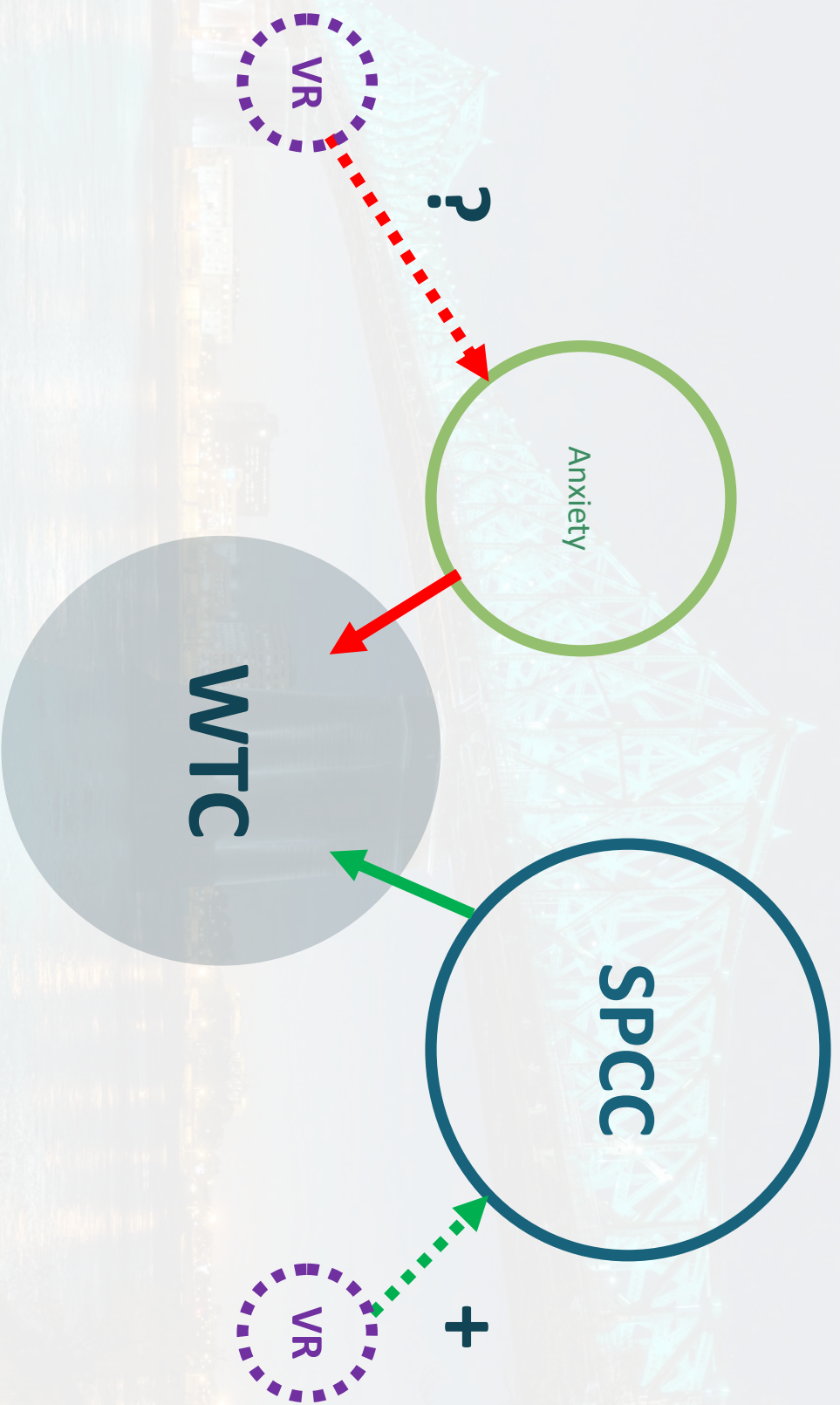
## Remaining obstacles to the practice of L2 French outside of the classroom

- Potentially shameful situations : “My biggest fear is to say something inappropriate or misleading”
- The *Montreal switch* : “Not very likely [to order in French] because the barista would speak English to me”



- 2 remaining sources of anxiety :
  - Fear of not being able to understand (interlocutor may speak too quickly and ask unexpected questions)
  - Fear of not being understood (lack of vocabulary and negative perception of one’s accent in L2 French)

## Back to our research hypothesis...





## Discussion

- Desire vs. willingness to communicate
- WTC = a volitional process (Kang, 2005)
- Suggestions for other simulations based on past real-life experiences (e.g. giving directions to a tourist or a taxi driver)
- Wish to practice with a real person in between the VR simulation and the real-world interaction (to be determined...)



## Limitations / Future studies

- Group size
- Non-negligible contribution of other class activities to L2  
WTC : “[the VR simulation] has helped me overcome a barrier. I felt more confident [during the second simulation]. I think it’s because we’ve been doing a lot of oral exercises in class.”
- Recurring difficulties related to speech recognition technology
- Need for repeated practice (duration of the study): “If I do the task more, I would feel more confident ordering in a bar in French. 5 minutes’ practice is not enough”
- Need to replicate the study in other FSL/FFL contexts
- Hard VR vs. Desktop VR





Thank you !







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