



VIRTUAL REALITY IN THE SPANISH AND PORTUGUESE LANGUAGE CLASSROOMS

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Structure of the talk

Introduction: Our Inspiration and Funds

Reasons to use VR in the FL classroom

Equipment and Material Development

An example of VR implementation in an Intermediate Portuguese classroom

An example of VR implementation in an Intermediate Spanish classroom

Feedback from students

Areas for improvement

Next steps

Introduction

- Inspiration: Dr. Nicole Mills' Project at Harvard University: *La République*
- Our team at the University of Chicago:
 - *Co-Directors: Juliano Saccomani and Claudia Quevedo-Webb under the mentorship of Ana Lima and Nené Lozada*
 - *Research Assistant: Dean Matteson*
- Our funds:
 - *The College Curricular Innovation Fund (University of Chicago) → Equipment and material development*
 - *The Exploratory Teaching Group Grant (Chicago Center for Teaching, University of Chicago) → Research*

VR definition

- In Tsun-Ju Lin and Yu-Ju Lan, 2015:
Smart et al. (2007) offered the following core definition of VR: **a system that aims to bring simulated real-life experiences, providing topography, movement, and physics that offer the illusion of being there.**
- In Mills, 2020:
Virtual reality (VR) is an immersive technology that **'provides the user with a highly responsive and fully immersive experience of a constructed virtual environment that is both visual and auditory'** (Schott & Marshall, 2018: 843)

Reasons to use VR in education

- Sense of “presence” (Winn et al. 1995):

This technology is an “immersive environment that completely surrounds the participant in which sights and sounds ... are stable and locatable in three-dimensional space” (Winn, Hoffman, & Osberg, 1995, p. 2). **As opposed to watching videos, participants in VR have the chance to experience the situation.** (Grantham O’Brien, Levy, and Orich, 2008)

- Agency (Mills, 2020):

While immersed in a simulated experience, **participants can turn and move around as they would in the real world which makes participants feel that their actions are closely connected to the VR experience.**

- Engagement and motivation (Mills, 2020):

Dede (2009) states that immersion in educational multi-user virtual environments can enhance learner engagement.

Clark *et al.* (2006) claim that students were deeply engaged in this immersive curriculum because of its actional and symbolic immersion characteristics. Engagement measures **included pre-and post-implementation surveys and focus groups about students’ attendance at school (which increased) and teachers’ perceptions of student motivation and disruptive behavior (which decreased).**

Reasons to use VR in Language education (Mills, 2020)

- Cultural and Linguistic Immersion:
In the field of foreign language education, Walker and White (2013) state that emerging technologies are also transforming the teaching of language and culture in powerful ways. Through the expansion of traditional classroom boundaries, **virtual environments have the potential to create meaningful opportunities for cultural and linguistic immersion.**

Creating Material

- Ultimate goal: relevant authentic immersion
- What makes a good Virtual Reality material?
 - *Immersive*
 - *Linguistically-appropriate*
 - *Relevant cultural aspect(s)*
 - *Static camera & head level (ideally)*

- Our material: Ricoh Theta 360VR cameras, Oculus Headsets
- Partners to record videos in other countries (Spain and Brazil)
- Youtube videos
- Thinglink - archive of images



Virtual Reality in Portuguese 20500 (intermediate level)

Culture of the Lusophone World (Brazil, Mozambique, Angola, and Portugal)

- Discussions of History, Literature, Social Development, Music etc.
- Pre-task: readings about each topic, students posted questions and reflection
- Task (in class):
 - *discussion about the readings, association with previous topics*
 - *Virtual Reality exploration of the places we discussed*
- Post-task: comprehension of videos and discussion of what the students saw

Students explored places and created links between readings and video

- Perceptions beyond what pictures may show you
 - *Luanda (capital of Angola)*
 - *Socio-geographic explorations*



Luanda - Wikipedia
en.wikipedia.org



Luanda | History, Economy, Points of ...
britannica.com



Luanda | History, Economy, Points of ...
britannica.com



Luanda - Simple English ...
simple.wikipedia.org



Luanda | History, Economy, Points of ...
britannica.com



A weekend in Luanda, Angola: "Africa's ...
euronews.com



Top Hotels in Luanda, Angola - Cancel ...
hotels.com



stark inequality – photo essay ...
theguardian.com



Bay of Luanda Waterfront | urbanNext
urbannext.net



Drowning in Waste – Case Luanda, Angola...
woimacorporation.com



Book a flight from Frankfurt to Luanda ...
lufthansa.com



Luanda City 4k by Drone - Angola - YouTube
youtube.com



Luanda, Angola Tourism - Tripadvisor
tripadvisor.com



Luanda, Angola (1576-) •
blackpast.org



EXPLORATORY VIDEOS

Exploring the streets of
Luanda beyond what we
see in the pictures

Exploring the mausoleum of Agostinho Neto

- Prominent poet who fought for the independence of Angola
- First president after independence
- Relation between Historic importance, and the geography of the place





Exploring Jeronimos Monastery in Lisbon

- First monastery built as a way to celebrate the circumnavigation of Earth
- Prominence, decorative emblems, religious aspects (2:43)

Feedback from students

Portuguese 20500

Average: How much do you think the use of VR has enhanced your learning experience? (0-not at all ... 10-a lot): Average 8.33/10

Comments: Do you think the use of VR technology has enhanced the content of this class and/or your learning experience? Please explain how.

- *Yes, can see details that are too small to notice otherwise. Can see structures in relation to each other.*
- *Yes. We got to actually see what we're learning. The culture became real. (student's highlight).*
- *Yes, culture classes are meant to demonstrate exactly that and VR is the closest way to see that for yourself without actually being there. Definitely things you notice you wouldn't otherwise.*
- *Definitely. It's interesting exploring all these new areas. It connects you to the places you're learning about*

VR activities in Spanish 20100 (Intermediate level)

New Year's Eve at grandma's: the eating of the 12 grapes

- *Pre-task (in class): small group discussion about family, food and traditions regarding food + small reading about the New Year tradition in Spain.*
- *Task (in class): getting familiar with the family on video (activating prior knowledge) + visualization on headsets*
- *Post-task (in class): Discussion of the video (comprehension + reflection)*


Exploring the landscape of Cantabria: visit to the top of Mount Picota

- *Pre-task (before class) : individual written assignment regarding the context of the video they would watch (vocabulary, geography, history of the place + of their own regions)*
- *Task (in class): visualization of the video*
- *Post-task (in class): comprehension activity, video discussion, and intercultural discussion.*
- *Post-task (after class): group project → 360VR videos on campus.*



VIDEO CLIPS (PRIVATE)





STUDENT'S
CLIP
(PRIVATE)

Feedback from students

Spanish 20100

Average: How much do you think the use of VR has enhanced your learning experience? (0-not at all ... 10-a lot): Average 8.3/10

Comments: Do you think the use of VR technology has enhanced the content of this class and/or your learning experience? Please explain how.

- *VR technology has enhanced it in the sense that it was more immersive vs just watching a Youtube video. **It felt as though I was actually interacting with Marce.** Once there are more applications and simulations, I think that the VR tech can become a huge asset in the language learning experience.*
- *It was really nice being sort of immersed in the scene with the 360 view. **I think VR is a great direction for improving our understanding of culture because it almost feels like you're there. You're experiencing it, not just reading about it in a book.***
- *I think it really places everything in perspective. **You can see someone's personal connection visually and you're not just passively reading about it.***

Areas for improvement

Motion sickness (reduced with Oculus headsets)

Set-up time

Size of head (headband too tight)

Cost of equipment

Scarcity of materials (working on it)

Maintenance of equipment

Next steps

