



LES 20 ANS DE L'ATILF

Virtual Reality and Immersive Virtual Environments in an Enactive Paradigm : Co-creating new Educational Spaces for Multilingualism

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Research question

- ▶ How can a language teacher transform a VR application/ an IVE into an educational device?
- ▶ The determining roles of the teacher and the educational scenario

1. VR and Immersive Virtual Environments (IVEs) within an enactive paradigm
2. Collaborative work in French, English, Spanish
3. Work in progress : escape games, international projects, platforms, artificial intelligence ...



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1. Placing VR and Immersive Virtual Environments (IVEs) within an enactive paradigm for language learning

1.1 What is VR and what is an IVE?

1. a strong sense of presence
2. a high degree of immersion
3. a 360° view facilitated by the wearing of a VR headset (Berti, 2019)



- ▶ multi-user and multimodal => telecollaboration and interaction (environment + players/participants/learners)
- ▶ Immersion in authentic situations + tasks => cognitive and physical engagements (Molle et al., 2020)
- ▶ safety spaces (Chen, 2019) => risk-taking

Training in language skills - speaking in front of an audience

+

General skills - self-confidence, time management, team management, project management (Gobin Mignot and Wolff, 2019)

▶ The enaction paradigm

“to enact”: to arouse, to bring about, to bring forth, in order to emphasize the growing conviction that cognition, far from being the representation of a pre-given world, is the **joint advent of a world and a mind** from the history of the various actions that **a being performs in the world.** (Varela *et al.*, 1993)

▶ cognition = embodied and contextualised

- ▶ Learning, attention, memory, decision-making, motivation and social functioning affected by emotion and subsumed within the processes of emotion. (Damasio 1994 in Immordino Yang, 2016: 37)
- ▶ « Emotional thought » (Immordino-Yang, 2016 : 38)



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2. Collaborative work in French, English, Spanish : the role of the educational scenario

2.1 Context of the research study

- ▶ Students
- ▶ 39 in-service teachers in English and Spanish (course in French)
- ▶ 2018-2020
- ▶ The VR room at the University of Lorraine (Nancy, France)
- ▶ **Objectives** : testing the applications and finding the educational possibilities of the IVEs (how would an IVE be introduced in a language class?)

Numerous IVEs :

- ▶ **Listening:** Mission: ISS, Youtube, Google 360, Travel VR, ImmerseMe, Disney, The WhiteHouse
- ▶ **Speaking:** Sansar, Altspace, OpenSim => avatars

- ▶ Qualitative : post-questionnaires, logbooks - Data analysis (Appraisal Theory) (Privas-Bréauté, 2021) + scenarios
- ▶ Photos and videos

Results

- ▶ Positive emotions and impressions
- ▶ Training in listening skills
- ▶ Promoting interaction with the environment and with others

Emotional, physical and cognitive engagements in contexts



WOW



But limitations:

- ▶ Mainly English
- ▶ Dizziness
- ▶ Technical problems
- ▶ Central role of the scenario : from listening to other skills (speaking, writing, reading)
- ▶ Choice of the applications : public virtual worlds and spaces = danger?



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3. Work in progress

1. Multilingual escape game
2. International projects for CLIL
3. Development of platforms for educational purposes (cf. Calypso, Inworld, Aix-Marseille University)
4. Artificial Intelligence?



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Conclusion

- ▶ IVEs = potential/ training spaces for multilanguage learning and developing other competences
- ▶ unique experiences (international level) => increase learner engagement (Molle et al., 2020)
- ▶ Crucial roles of teachers/ facilitators (choice of application and implementation of a scenario)
- ▶ Still research and experimentations (research-action and research-development)

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