



HAL
open science

Studying pedagogical interactions in synthetic worlds

Aurélie Bayle, Anne-Laure Foucher

► **To cite this version:**

Aurélie Bayle, Anne-Laure Foucher. Studying pedagogical interactions in synthetic worlds. EURO-CALL 2011, Aug 2011, Nottingham, United Kingdom. edutice-00583506v1

HAL Id: edutice-00583506

<https://edutice.hal.science/edutice-00583506v1>

Submitted on 5 Apr 2011 (v1), last revised 10 Oct 2011 (v2)

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Studying pedagogical interactions in synthetic worlds

Key words: on-line interactions – synthetic worlds – research methodology – language learning

The aim of this communication is to present some subjects of reflection on the methodology used to put in place a research protocol to study language learners' interactions within synthetic worlds.

Bell (2008: 3) defines a virtual or synthetic world as “a synchronous, persistent network of people, represented as avatars, facilitated by networked computers ». The main interest for language learning is that synthetic worlds provide similar social interactions as in the real world. This is of a particular interest for distance learning.

On-line interactions as part of language learning have already been well explored in research (De Wever et al., 2006 ;Mangenot, 2007 ; Jeanneau&Ollivier, 2009, etc.). Synthetic worlds, as Second Life, are more and more used in education fields such as design, marketing, economy... The important presence of universities as well as the numerous training courses taking place “inworld” are proofs of this interest. However, if studies on practice in education do exist (Molka-Danielson &Deutschmann, 2009 ;Wankel& Kingsley, 2009, etc.), research is still emerging and a need is felt (Peachey et al, 2010). This is particularly true for the field of language learning which is only just beginning to be explored in a research perspective.

Our communication will seek to explore different aspects of research in language learning within synthetic worlds. It will be based on a European project, ARCHI21¹, in which CLIL (Content and Language Integrated Learning) formations mix architecture and language learning. In the context studied, multicultural groups of learners work on collaborative building tasks in Second Life.

We will particularly develop the following points:

- Data collection and analysis
- Researcher's positioning
- Ethical aspects

Concerning data collection, problems can emerge as we deal with multimodal interactions. Indeed, a user can communicate simultaneously with several tools (chat, gestures, voice...). Chat logs can be automatically saved but, because of the 3D environment, it is difficult to record and exploit data concerning visual interaction, either between avatars or with objects (Moschini, 2010).

If recording represents a delicate aspect, the presence and point of view of the researcher “inworld” are also parameters that need to be taken into account. Recording is often made from the point of view of the researcher's avatar. This avatar is visually present and needs to be close to what is being observed / recorded but at the same time, this presence should not disturb the interactions. Second Life enables the separation between the avatar's body and the look with the camera tool. This is something that needs to be explored as it may renew the position of the researcher in the research.

Ethical aspects have to be dealt in a slightly different way given the issue of avatars' identity (Banakou, 2010, Macintyre, 2008, etc.). Do we study avatars' or people's interactions? What about anonymity?

¹Architectural And Design Based Education And Practice Through Content And Language Integrated Learning Using Immersive Virtual Environments For 21st Century Skills (Archi 21, 2010-2012), programme Lifelong Learning Programme, KA2 Languages.

The methodological framework we are putting forward leans upon existing research on interactions in language learning while integrating the synthetic worlds' specificities and issues.

References:

Banakou, D. (2010). The effects of Avatars' Gender and Appearance on Social Behaviour in Virtual Worlds, *Journal of Virtual Worlds Research*, 2(5). [<http://journals.tdl.org/jvwr/article/view/779/717>]

Bell, M. (2008). Toward a Definition of "Virtual Worlds", *Journal of Virtual Worlds Research*, 1(1). [<http://journals.tdl.org/jvwr/article/view/283/237>]

Betbeder, M.-L., Ciekanski, M., Greffier, F., Reffay, C., & Chanier, T. (2008). Interactions multimodales synchrones issues de formations en ligne : problématiques, méthodologie et analyses. In Basque, J. & Reffay, C. (dirs), *numéro spécial EPAL (échanger pour apprendre en ligne), Sciences et Technologies de l'Information et de la Communication pour l'Education et la Formation (STICEF)*, 15. [http://edutice.archives-ouvertes.fr/docs/00/25/86/45/PDF/STICEF-EP-05_Betbeder_Ciekanski_080220.pdf]

De Wever, B., Schellens, T., Valcke, M., & Van Keer, H. (2006). Content Analysis scheme to analyze transcripts of online asynchronous discussion groups: A review, *Computer in Education*, 46. pp 6-28 [http://users.ugent.be/~mvalcke/owk/content_analysis.pdf]

Jeanneau C., & Ollivier C. (2009). Éléments influençant la nature des interactions en ligne des apprenants de langues, in Develotte, C., Mangenot, F., & Nissen, E. (dir.) (2009). *Actes du colloque Echanger pour apprendre en ligne (EPAL), 5-7 juin 2009*. Grenoble. [http://w3.u-grenoble3.fr/epal/dossier/06_act/pdf/epal2009-jeanneau-ollivier.pdf]

Macintyre, R. (2008). Inbetweenness OR in two places at once..., *ReLIVE08 Conference Proceedings (Researching Learning in Virtual Environments)*, Open University. pp 208-215 [http://www.open.ac.uk/relive08/documents/ReLIVE08_conference_proceedings_Lo.pdf]

Mangenot, F. (2007). Analyser les interactions pédagogiques en ligne, pourquoi, comment ?, in Gerbault, J. (dir.) *La langue du cyberspace : de la diversité aux normes*. Paris : L'Harmattan. pp 105-120 [http://w3.u-grenoble3.fr/espace_pedagogique/analyser-interactions.pdf]

Molka-Danielson, J., & Deutschmann, M. (dir.) (2009). *Learning and Teaching in the Virtual World of Second Life*. Tapir: Trondheim.

Moschini, E. (2010). The Second Life Researcher Toolkit – An Exploration of Inworld Tools, Methods and Approaches for Researching Educational Projects in Second Life, in Peachey, A., Gillen, J., Livingstone, D., & Smith-Robbins, S. (dir.) *Researching Learning in Virtual Worlds*. Springer. pp 31-51

Peachey, A., Gillen, J., Livingstone, D., & Smith-Robbins, S. (dir.) (2010). *Researching Learning in Virtual Worlds*. Springer.

Wankel, C. & Kingsley, J. (dir.) (2009). *Higher Education in Virtual Worlds: Teaching and Learning in Second Life*. Bingley : Emerald.