

Adolescents as Game Designers: What can be Learned from Young People?

Pilar Lacasa

University of Alcalá (Spain) & RMIT
(Melbourne, Australia)
School of Media & Communication, RMIT
University
Building 9, level 4, Melbourne, Victoria,
Australia
(+61) 0409 892 724
placasa.uah@gmail.com

Sara Cortés

University of Alcalá (Spain)
Aulario María de Guzmán. C/ San Cirilo S/N
Alcalá de Henares 28801
(+34) 918855028
sara.cortesg@uah.es

María Ruth García-Pernía

University of Alcalá (Spain)
Aulario María de Guzmán. C/ San Cirilo S/N
Alcalá de Henares 28801
(+34) 918855028
mruth.garcia@uah.es

Laura Méndez

UNED. Spain
C/Juan del Rosal no 10,
28040- Madrid
(+34) 913986594
lmendez@psi.uned.es

ABSTRACT

This proposal is the result of an innovative experience that explores new educational methodologies in which the design of video games becomes an all-important activity during school hours. These cultural tools, present at Spanish schools in Madrid, have become platforms from which to generate new literacies needed to cope in the 21st century society. The main goal of this paper is to analyze the experiences of adolescents when designing video games in an innovative learning environment based on the concept of participatory culture. More specifically, we will look at the process of designing video games in a collaborative and interdisciplinary workshop.

Keywords

adolescents, design, literacy, participatory culture

INTRODUCTION

The specific goals are the following:

- To explore the game design process in the classroom looking for educational strategies supporting the acquisition of new literacies. Students become producers, not just receivers.

Proceedings of DiGRA Australia Queensland Symposium 2016: Wayfinding

- To analyze how the process of designing video games helps raise awareness of their internal mechanics in a virtual world.
- To examine the interaction and scaffolding situations among the workshop participants during the video game creation process.

We will consider **the theoretical framework** that structure these specific objectives. First, new technologies offer users not only the chance to be consumers (Jenkins, Itō, & Boyd, 2015; Wenger, 2015) but also creators. Playing is not enough, now it is necessary to create games and become the sender of information and not only the receiver. Second, the development of literacies demands becoming aware of the language used (Gee, 2013). In this case, the discourse is related to two dimensions, the game rules and the drama behind the presentation of its contents (Fernández-Vara, 2015; Schell, 2008). From this perspective, we understand **game design as a meaning-building process immersed in a specific cultural context**. Finally, the design of video games also offers new forms of collaboration that challenges the relationships between individuals and the social world. The complexity of the design (Murray, 2012; Squire, 2012) in virtual worlds no doubt calls for interdisciplinary collaboration. Besides, traditional social roles can be exchanged in the classroom: those who were teachers now become apprentices, even though they can keep their role as guides in learning situations (Lacasa, 2013; Lacasa, Pernía, & Cortés, 2015).

Considering **the methodology**, his study is part of a broader project which involved a whole secondary education school. The students used Game Maker to design the games and we were participant observers, adopting an action research and ethnographical perspective (Pink, Horst, Hjorth, Lewis, & Tacchi, 2015). The workshop lasted fourteen sessions during school hours and was carried out with the collaboration of the research team, the teachers and the IT support team. *In this paper, we shall analyze the process followed in the workshop to understand the process itself and not only the final product of the video game design activity.*

The corpus of data consists of all video-recorded sessions, the photographs taken in each session, the recorded computer game and the video games designed; moreover, the researchers elaborated an interpretative summary of the session. Besides, once the workshop was over, we carried out interviews to the groups. The *analysis* was carried out with Transana software in a two-phase approach in order to understand the adolescents' experiences in the context in which they occurred. In the first phase, the recordings of each session were segmented and transcribed in order to analyze the conversations from a discourse analysis perspective to understand the meaning that this experience had for teenagers and researchers. During the second phase, we explored the video games designed by the students.

Focusing on **the results**, we can conclude that the design of video games in the classroom contributed to generate a multi-modal educational activity with 3 key moments:

- Phase 1 (from session #1 to session #3): The students worked in a large group analyzing commercial video games guided by the researchers and the teacher.
- Phase 2 (from session #4 to session #5): The students prepared their projects' pitches in small groups, which helped them define their games. Each student plays a different role as part of the

design team (director, art, sound, design, programming). At a later stage, the games were shown in a joint session and discussed with the authors.

- Phase 3 (from session #6 to session #14): This phase was focused on the prototypes creation, working in small groups.

The first analyses of the sessions and the games designed by the students show the following preliminary results. *First*, designing a video game in the classroom contributes to the development of new literacies, different according to the role that the students play designing the game. *Second*, the analysis of the video games created reveals the representation that the adolescents have of the game, according to the role they play as part of the design team. The elements that constitute the game (sound, images, stories, graphics) start making sense once they become aware of the rules, the virtual environments in which they are created and the arguments to attract the player. *Third*, the context created and the people participating in the workshop allowed us to design a learning space based on the different roles played both by the students when creating the games and by the researchers while supporting and helping the kids. *The roles played by the kids helped them understand that computational design is not the only important thing in the game, the artistic dimension, the sound and the director's role are also essential.* The researchers-educators favored reflection and analysis in the first stage, while the experts in the design and the technical part of the game were key at the time of creating it.

The **discussion and conclusions** will focus on how the roles that they play during the process determine the game representation. We will consider the results of other research exploring teens and adolescents' game design (Kafai & Peppler, 2012) and especially how students develop a critical approach to the games when they design them in formal context for learning.

BIO

Dr. Pilar Lacasa. Visiting Research Fellow at the The Digital Ethnography Research Centre (RMIT) and Professor of Audiovisual Communication at the Faculty of Humanities at the University of Alcalá (Spain). She coordinates the *Word, Images, and Ideas. Research Group* <http://uah-gipi.org> since 1998. She loves video games, new emerging communication technologies and classic European and American movies. Her research work has been developed from a socio-cultural approach. Pilar is the author of *Learning in virtual and real worlds* (2013) edited by Palgrave and very recently *Adolescents and Social Networks. Create and Participate*, an Interactive & Creative Commons iBook. Twitter @placasa

Dr. Sara Cortés-Gómez is Assistant Professor in Audiovisual Communication at the University of Alcalá, Spain. Sara is interested the role of new technologies and video games as cultural tools aimed to develop new literacies in a global world. The main lines are focused on analyzing the creation of new educational spaces where new technologies become literacy practices and the construction of one's identity when children and youngsters play with video games or use social media. She has been a visiting scholar at LCMI (University of Luxembourg) and GLS at the University of Madison.

Dr. María Ruth Garcia-Pernía is Assistant Professor of Audiovisual Communication and Research Fellow at the University of Alcalá. She is a member of the research group Images, Words and Ideas. She works on video games, new technologies and audiovisual narratives. Her current research on the topic of computer games and narratives is supported by the Spanish Ministry of Culture and Education. She has

been a visiting scholar at the Department of Media and Culture Studies - Media and Performance Studies, Utrecht University.

Dr. Laura Méndez Associate Professor of Psychology. She was a teacher at several different educational stages. She currently teaches Educational Psychology at the National Distance Learning University (UNED). She has always been interested in learning environments and the socio-cultural characteristics that define them. This interest has driven her to explore virtual environments and the new spaces of relationship and learning enabled by technology.

BIBLIOGRAPHY

- Fernández-V ara, C. (2015). *Introduction to game analysis*. New York: Routledge.
- Gee, J. P. (2013). *The anti-education era : creating smarter students through digital learning*. New York, NY: The Palgrave MacMillan.
- Jenkins, H., Itō, M., & Boyd, D. (2015). *Participatory culture in a networked era : a conversation on youth, learning, commerce, and politics*. Cambridge, UK ; Malden, MA: Polity Press.
- Kafai, Y. B., & Peppler, K. A. (2012). Developing Gaming Fluencies with Scratch: Realizing Game Design as an Artistic Process. In C. Steinkuehler, K. Squire, & S. A. Barab (Eds.), *Games, learning, and society : learning and meaning in the digital age* (pp. 355-380). Cambridge: Cambridge University Press.
- Lacasa, P. (2013). *Learning in real and virtual worlds : commercial video games as educational tools*. New York: Palgrave MacMillan.
- Lacasa, P., Pernía, M. R. G., & Cortés, S. (2015). Creative collaboration in young digital communities. In N. Zagalo & P. Branco (Eds.), *Creativity in the Digital Age* (pp. 135-158). London: Springer.
- Murray, J. H. (2012). *Inventing the medium : principles of interaction design as a cultural practice*. Cambridge, Mass.: MIT Press.
- Pink, S., Horst, H., Hjorth, J. P. L., Lewis, T., & Tacchi, J. (2015). *Digital ethnography : principles and practice* (1st edition. ed.). Thousand Oaks, CA: Sage Publication.
- Schell, J. (2008). *The art of game design : a book of lenses*. Amsterdam ; Boston: Elsevier/Morgan Kaufmann.
- Squire, K. (2012). Designed Cultures. In C. Steinkuehler, K. Squire, & S. A. Barab (Eds.), *Games, learning, and society : learning and meaning in the digital age* (pp. 10-31). Cambridge: Cambridge University Press.
- Wenger, E. (2015). *Learning in landscapes of practice : boundaries, identity, and knowledgeability in practice-based learning*. London ; New York: Routledge.