Chapter 8
Co-Creating Games with Children: A Case Study

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ABSTRACT

In this paper, the authors investigate the role of and relationship between creative production practices (e.g. problem-solving and self-evaluation) and cooperative learning mechanisms (e.g. building trust and group processing) in a case of game co-design. 21 Belgian school children created game concepts together with a game designer, their teacher, and co-design facilitators. During a project week at school, participants moved from idea generation to presenting game concepts through collaboratively created prototypes. This case study, combining observation and survey methods, reveals that self-evaluation and openness to sharing ideas emerged spontaneously, but the critical analysis of digital games and crediting existing work require support. Moreover, as creative choices become part of group deliberation, progress in the creative production process critically depends on group functioning. The authors conclude that by grounding co-design in theory on cooperative learning and media literacy, co-design activities may be better understood and new avenues for supporting co-creators can be identified.

INTRODUCTION

There is a wealth of literature on designing technology together with non-design experts (Muller, 2008; Sanders & Stappers, 2008; Björgvinsson, Ehn, & Hillgren, 2010), including a variety of studies that demonstrate impressive efforts to make the design process participatory and inclusive (e.g. for children with autism, see Frauenberger, Good, & Keay-Bright, 2011, and for children with hearing impairments, see Duysburgh, Slegers, & Jacobs, 2012). Nevertheless, the relationship between the ability to create meaningful technological ideas, concepts or prototypes, and the nature of cooperation among co-design

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participants remains underexplored. Both components - i.e., the competencies required for participating in the creative production process that co-designing implies, and the effective mechanisms for cooperatively moving forward and learning from each other during co-design - merit more scientific attention.

In this paper, we investigate the role of creative production competencies and practices (e.g., problem-solving and self-evaluation), cooperative learning mechanisms, and their mutual shaping in the context of a specific co-design case. In the Spring of 2014, a pilot study was set up in which 21 school children in Flanders (Belgium) were asked to create digital game concepts together with a game designer, their teacher, and co-design facilitators. Over the course of a week, participants moved from idea generation to presenting their game concepts by means of collaboratively created prototypes.

This pilot study was part of a project called Kids Game Lab, in which we – researchers affiliated with an academic research institution - collaborated with a non-profit organization called iDrops, that seeks to facilitate digital innovation in the social and cultural sector. As researchers, our primary role in the project was to provide advice on the set-up of the co-design trajectory based on exploratory interviews with stakeholders (in the beginning of the project), and to follow up and assess its implementation (during the pilot study). The role of the non-profit partner, iDrops, was to decide on what the actual trajectory would look like and implement it. The overall aim of the project was to explore whether game co-design could provide a viable solution for (re-) engaging children and youngsters in non-formal learning activities (Protopsaltis, Pannese, Pappa, & Hetzner, 2011). At the same time, it could present an opportunity for game designers to become more familiar with and inspired by the everyday life and environment of the young people they are designing for.

Indeed, it appears that human-centered design and research methods have mainly been embedded in the game design process to evaluate user experience in games (see, for example, Pagulayan, Keeker, Fuller, Wixon, & Romero, 2008; IJsselsteijn et al. 2007), rather than to conceptualize user experience. The implementation of a human-centered methodology for generating, refining and prototyping game concepts is less common, even though involving audiences in these early stages holds potential to foster innovation in gameplay by challenging game designers’ self-defined notion of what constitutes meaningful play (Vanden Abeele & Van Rompaey, 2006).

In what follows, we will first discuss the theoretical background of the current case study, outline the central research questions and describe the research methodology. After elaborating the results, we conclude with a discussion and contextualization of our findings.

THEORETICAL BACKGROUND AND RESEARCH QUESTIONS

To scrutinize the Kids Game Lab case, we will use two theoretical lenses: one to address the creative and productive facets of game co-creation, and another to explore its cooperative and instructive facets (see Figure 1). For the former, we consider the media literacy perspective, focusing on participation in creative media production (Kafai & Peppler, 2011). In respect to the latter, we review theoretical work on social interdependence theory as a means to approach cooperative learning (Johnson & Johnson, 1999, 2009).

First Theoretical Lens: Participation in Creative Production

In order to understand how the conceptualization of media literacy can provide insight in the practice of co-design, we need to first clarify what media literacy refers to. Livingstone (2004, p. 3) points out