Negative Experiences as Learning Trigger: A Play Experience Empirical Research on a Game for Social Change Case Study

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ABSTRACT
This study shows the results gathered from 141 subjects playing the persuasive urban game A Hostile World via a post-game-experience quantitative questionnaire. The aim is to problematize and deepen the role of negative emotions (e.g., frustration, rage) – explicitly fostered by A Hostile World to increase empathy toward immigrants and foreigners – in triggering an effective learning outcome. A multidisciplinary approach that draws its principles from Sociology, Game Design and Education Studies was applied to lead and structure the analysis. Empirically, a quantitative survey was disseminated to n:141 players addressing negativity and play. Results show that negative experiences in ludic environments offer a precious support if well pondered. Findings are noteworthy because they allow to reflect on negativity and gaming with the support of an empirical investigation, which is a significant source of data for grounded and tangible follow-ups. Therefore, implications concern both scholars and practitioners who intend to use and explore negative emotions in gaming.

KEYWORDS
Failure, Immigration, Individual Attitudes, Meaningful Experience, Negative Feelings, Quantitative Methods, Social Change, Social Impact

1. INTRODUCTION
Games have to be challenging: they do not have to be boring, or not fun enough and therefore not worthy to be played (Mitgutsch, 2009). Moreover, games have to make the player fail in order to push for learning (Juul, 2009; 2013).

In the gaming experience, players face obstacles hindering their progress, and they are supposed to fail (at least sometimes); this process motivates them to persist and improve their skills, acquire new abilities and perfect their strategies, learn from their own mistakes (Kapur, 2008) and overcome insurmountable obstacles, and finally success with the game and enjoy it. In the article, we investigate how negative experiences within a particular game can be transformed into actual remarkable learning (Bertolo & Mariani, 2013; 2014a). Albeit the stimulating potential of play is acknowledged by academics and leading scholars (e.g., Gee, 2007; Prensky, 2007; Flanagan & Nissenbaum, 2007; Salen, 2008), little efforts were done in investigating empirically how players deal with apparently disturbing and negative emotions (e.g., frustration and boredom) willingly embodied in the game system.

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In the study, we analyse the gaming experience of 141 of the about 200 players who took part in *A Hostile World* (AHW), a persuasive game intended to raise awareness on immigration (see par. 2.3) by harnessing negative feelings. Indeed, the current emergency that is characterising this issue (irregular flows, intercultural debates, integration, etc.) entails stereotypes, misunderstandings and even prejudices among the public opinion; consequently, it represents the ideal topic to deepen by pondering negativity and meaningful play. Taking a step forward, we purpose to comprehend if this case study activates a certain response to the matter of social concern that it covers; specifically, we want to understand if and how the negativity of the game experience (Mariani, 2016a) triggers a learning process.

After the gameplay, 141 players completed a qualitative questionnaire related to ludic attitudes, the game experience and the topic of immigration. Our focus was on how players reacted, how they assimilated the experience triggered by the game and its rules, and what it meant to them. Coherently, the research questions that led the analysis are: (1) what kind of experience is generated when a game like AHW triggers negative feelings and emotions? (2) consequently, can such an experience activate a learning process?

This research presents two levels of contribution for researchers and designers. At a Research level, this study provides designers and researchers with theoretical and empirical insights, as well as with an overview on the results of the process of enquiry we applied. At a Design level, the contribution expands the awareness of the experience created by the game per se: designers will find operative suggestions for including negative emotions into their creations as allies and not something to avoid.

As a result, this study seeks to extend the exploratory research on situated games for social change (G4SC henceforth) as a branch of the category that Bogost (2007) named Persuasive Games; in particular, the research focuses on games that require embodiment by examining the relationship between negative experiences and how they affect players. The primary contribution of this analysis is to clarify the role of negative experiences and failure as processes of learning. A further intent is to contribute to the current need of the game research and design field to validate the efficacy and understand the potential type of social impact that G4SCs can have.

The article is divided in five sections. (2) presents a close view on the concept of meaningful experience and on G4SCs as means for meaning transfer, (3) introduces the case study and the research questions, followed by (4) the research methodology. Then in (5) the research findings are discussed. To conclude (6) synthesises the critical contribution of this article, and its relevance.

2. OVERVIEW

In order to set the premises of our proposal, three topics should be deepened: first, the play as a meaningful activity with a significant educational outcome; second, the application of such a potential in G4SC field; third, the multi-cultural issue addressed by *A Hostile World* that represents the learning object of this specific ludic experience.

2.1. Play as Meaningful Experience

According to Juul (2013, p. 74), “Games are fundamentally about learning”, because they ask for a progressive improvement of skills and ability to strategically reflect, to achieve certain knowledge and succeed. The thesis advanced by the author is that learning happens mainly through failure. Accordingly, we argue that negative experiences (Mariani, 2016a) – i.e. experiences characterised by failures – may engender remarkable learning outcomes if intentionally planned. Failure is commonly acknowledged and recognised as a negative experience, but its meaning might be more than that. To
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