Designing for Constructive Failure: Reflections on the design and execution of an introduction to simulation gaming

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INTRODUCTION
'The art of failure' as Juul writes (2013) is a practice of a paradox: that which we do not enjoy or might even avoid in ordinary life, can be enjoyable in a game setting. Paradox and play are closely connected, specifically when it concerns the boundaries between ordinary life and play experiences. This is even more so in the context of serious games, where the play experience is taken to have a given, instrumental function outside the realm of that experience. Statler, Heracleous & Jacobs (2011) describe this as a 'paradox of intentionality' that occurs "when actors engage deliberately in a fun, intrinsically motivating activity as a means to achieve a serious, extrinsically motivated work objective" (2011, p. 236). Future knowledge work may require ever more play and creativity, but school settings in particular have their own challenges when it comes to the fruitful exploration of this paradox. The paper describes the process of designing and evaluating an introductory course to simulation gaming.

MISTAKES ARE OUR FRIEND
For students in higher education, making mistakes can have serious consequences. Yet, educational psychologist Dweck (2000) found a counter intuitive insight in her study of the relation between self-theories and learning orientations: mastery is not about *avoiding* mistakes or even *dealing* with mistakes in a proper manner, but about *embracing* mistakes as wonderful learning opportunities. As one of the children put it to Dweck's delight: "Mistakes are our friend". Dweck states: "The hallmark of successful individuals is that they love learning, they seek challenges, they value effort and they persist in the face of obstacles" (Dweck, 2000, p. x). This is an attitude that is closely connected to the 'happiness-pain' that is connected to playing games. But can that be transferred to the practice of paradox that serious play provides?

ENCOURAGING MISTAKES
From 2011 to 2015, the author taught a short introductory course on simulation gaming for third year students in Media & Entertainment Management. These Bachelors in

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Business Administration (BBA) were in training to become managers in the creative industries. The goal of the assignment was not to train game designers, but rather to introduce these future managers to the idea that games can also be used as tools for research and problem solving (cf. Hofstede & Meijer, 2007). Learning when a simulation game might and might not be helpful in building a solution to a real-life problem is an extension of the strategy building toolbox students develop.

The reception of the assignment differed among students and also among years. In the first year, participation to the classes the course offered had not been made mandatory. Nor was there a clear incentive to study the mandatory literature (by Duke et al., 2007) in advance. In the later structure of the assignment several incentives were added, as well as an element of competition. In one workshop, 'classic' games were played with the group, such as the Dollar Auction Game (Shubik, 1971, see also: Balyeat, 2007) and the prisoner's dilemma (cf. Gibson, 2003). In another, competitive teams of students had to develop a paper prototype for a game within one hour. On the one hand, these changes limited the freedom students had in the course of the teaching period to work at their own pace. On the other hand, this structured their thinking differently and as such, created different outcomes in their assignments and reflections (cf. Holopainen et al, 2007).

For strategy development, you need a mindset of possibility, not of certainty. Games lend themselves for this, as they offer the possibility to explore multiple outcomes, without necessarily prioritizing one outcome over the other. In the assessment of student's skills, we invite them to display certain desired behaviours. Yet, we are not always sure if this behaviour is 'just' being copied or whether it is purposeful, intentional and understood. A good imitation may just be exactly that, a good imitation. It is not always easy to assess whether the required level of mastery is actually attained. By developing tasks that have some "sand in the machine", students are forced to engage with the underlying dynamics required for problem solving. This happens only if learning from mistakes is strongly encouraged.

BIBLIOGRAPHY

Balyeat, R.B. (2007) A Class Experiment: The Dollar Auction as a Teaching Tool to Demonstrate the Theories of Behavioral Finance. In: Advances in Financial Education, 6 (p. 136-146).

Dweck, C. (2000) *Self-theories: their role in motivation, personality and development*. Philadelphia: Psychology Press.

Duke, R. D., Geurts, J. L.A. & Vermeulen, P. (2007). Policy Gaming for Strategy and Change. *Longe Range Planning* 40 (p. 535 - 558)

Gibson, K. (2003) Games Students Play: Incorporating the Prisoner's Dilemma in Teaching Business Ethics. *Journal of Business Ethics* 48 (p. 53–64).

Hofstede, G.J. & Meijer, S. (2007). Collecting empirical data with games. In: Mayer, I. & Mastik, H. (eds). Organizing and Learning through Gaming and Simulation. (p. 111 – 120).

Holopainen, J., Björk, S., & Kuittinen, J. (2007). *Teaching Gameplay Design Patterns*. Paper presentation at ISAGA 2007, Nijmegen, The Netherlands.

Juul, J. (2013). The Art of Failure. An Essay on the Pain of Playing Video Games. Cambrige/London: The MIT Press.

Statler, M., Heracleous, L. & Jacobs, C. (2011). Serious play as a practice of paradox. *Journal of Applied Behavioral Science* 2011 47: 236 DOI: 10.1177/0021886311398453 (p. 236 – 256)