Chapter 6
Gamification: Teaching While Playing – Open Issues and Educational Guidelines

Alberto Pian
Università Tor Vergata Roma, Italy

ABSTRACT
In this paper the author shows that the school is an effective gamification structure, based on a dual nature which places it between work and play. So to talk on gamification of school activities is not an entirely accurate expression. In fact, the educational activities have already modeled by a play structure, so it is necessary to call particular attention on the design (Pian, 2014), on creativity and on the evaluation, in an active and multi-channel context (Pian, 2013). The issue of assessment, however, involves choices that are often not shared, such as the allocation of badges, which remains an open question, even in the Anglo-Saxon world where these practices are more widespread.

INTRODUCTION
In this essay we show that school is a perfect gamification environment, with clear rules of gamification. This specific feature tends to eliminate the need to build up new gamification structures and virtual immersive environments as organized, global and learning structures. In other words, there is no need to re-create and activate the “parallel” mechanisms of immersive learning, based on the gamification processes. On the contrary, the solution is to fully employ the structure of existing gamification already present at school, in order to create a real, non-virtual, gamificated environment. In this framework, it will be allowed to activate and integrate virtual and immersive learning modalities as specific, sectoral and non-global processes within the school. “Gamification” is a technical term which has become of common use in several languages. In Italian it is often translated as “gamificazione”. It is well known that the term derives from the English word “game” (“gioco” in Italian language).

Gamification has been raising high expectations since it was first introduced into education. Sue Bohle, Executive Director of the Serious Games Association (Serious Games Interactive, 2015), foresees
that “Within 2020, games will be used to involve students at all learning levels and to introduce global issues to the general public.” (Serious Games Interactive, 2015).

This perspective is partially derived from the fact that nowadays videogames are generally accepted and a lot of people consider them positively despite previous concerns with the depiction of violence. “For many, videogames represent a world made of violence and aggressive emotions. Popular games as Call of Duty (Call of Duty, 1997) and Grand Theft Auto have been demonized by the media and blamed for anything, which could be defined as negative - from bad mark in school to the increase of reckless violence. Although the link between videogames and violence has been discussed for three decades, there is still no clear evidence of this connection. On the other hand, there is growing evidence that videogames could have positive effects on children and on those individuals over 60 years old, some of which involving changes in specific areas of the human brain” (BBC). Within these changes, and against all prejudices, have been registered improvements of the visual perception (BBC).

Gamification refers to the introduction of playful mechanisms within serious contexts, i.e. those contexts, which are not usually identified with games. Firms are considered “serious” environments much as schools are perceived as “serious” institutions. In both contexts, the playful part is usually separated from the institutional activity. When a firm organizes a football match, this is certainly a game but not a gamification. If the game is part of a specific program for the development of relational, team-building and competitive skills, it can be defined as a designed training, but still not a gamification. On the other hand, if the employees are allowed to use for free their firm’s sport center, based on their professional performances, this is gamification. In a professional and institutional context, gamification introduces a specific game mechanism, which assigns a prize according to the performance results. Rewarding someone on the base of his/her good results is one of the elementary rules which apply to games.

Within the broad area of gamification, there are serious games which are often referred to as “virtual worlds”, that is immersive 3D environments or, more broadly, 2D graphic environments which can be used remotely. This involves the design of digital specific structures, i.e virtual worlds, through which the game develops. Very often, serious games are employed by companies for training purposes. Examples of this practice are the Virtual Reality House Train4TradeSkills (Train4TradeSkills, 2016), a training environment for plumbers, built around an immersive virtual reality set; the serious game of l’Oréal, Hair-BE12, a simulation game in 3D on the management of a hairdressing salon by L’Oréal.

Facing these examples one may wonder why it is necessary to virtualize a real environment instead of using the environment itself. The reason is that virtualization of reality is a necessity for any company that wants to introduce game mechanics through serious games, because you can not use the company office space to “play,” even when it comes to learning. In a “real” company environment learning can only be “traditional”, primarily for security reasons. The trainer will be allowed to show or to guide the execution of chemical, mechanical, manual, electronic processes in any of the company rooms, but he/she will not be allowed to use this working space to turn it into a serious game, because work is never meant to include game mechanics. These need to be introduced by creating specific virtual learning environments which are normally modelled on the real-life environments. Therefore work environments are reconstructed in 3D to train staff through gamification systems, while real ones are used in a traditional educational setting.

At school, on the contrary, it would be illogical to propose to students the virtualization of their own school learning environment, with the exception of few specific cases as distance learning, long-term hospitalization, and other similar situations. First of all because the school, as a formative experience, is set as a separate structure from everyday life. This separation enables the necessary distance to develop
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