

Toward a competency model of video games effective players

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ABSTRACT

In this paper, we discuss the collaborative competencies developed while playing a video game such as CounterStrike. Collaborative competencies have been explored using a reference model developed for organizations to produce public value. Video games players were observed and interviewed to identify differentiating competencies and produce a competency model that needs further validation.

Keywords

Video games, collaborative competencies, competency model, effective players, effective collaborators.

INTRODUCTION

Video games can be sources of learning and development of skills as shown by several authors (1), (2), (3), (4). Gee (1) discusses the potential of video games as source of active learning of new significant domains. He shows that the players learn to experience the world of new manners, and develop resources for the future apprenticeships and the resolution of problem in a domain meaning with which the game is connected. So, the practice of video game could serve as lever for other knowledge domains such as sciences for example. The benefits of after school programs for the disengaged that creates contexts to support literacy has also be discussed during the first workshop on marginalized young people (5). The making of games for leaning where game players program their games and learn new competencies such as software and interface design has also been addressed (6). All these studies contribute to show that video games are sources of interaction and learning.

What is little studied on the other hand, concerning the video games, are their potential relation with work, on one hand the possible transfer of the experience by these games at another sphere such as work, and on the other hand the nature of the competencies developed in the game and their possible adequacy with regard to the competencies required at work. In our researches, we try to bring answers to two main questions: 1) Is the video game a source of constructive activity, does it allow to develop competencies? And what types of competencies ? 2) Can

these competencies present some utility in the field of work?

More particularly if we take as example CounterStrikeⁱ, which is a team game, we can wonder if the practice of the game allows to experience collaborative competencies. In this game, the players share a collective purpose (win the set) and a common reference frame which includes rules, strategies, and the usage of a shared “jargon”. The high-level teams elaborate collectively carefully original, adequate tactics, capable of surprising the opposite team. The achievement of the collective purpose is inseparable of cooperation between the members of the team, and requires a very good communication of the information between the players before, during and after the plays. We wondered if playing CounterStrike allowed to mobilize collaborative competencies which could be close with those identified in situations of collaboration at work. To progress in this questioning, we found useful to turn to models stemming from the work such as the “model of the effective collaborators” (7). So, what interests us is to understand if this model can be used as tool heuristics, to help us to structure our object of study, to contribute to build a guide of interview and finally to categorize and analyze our data (8).

THE COMPETENCY MODEL OF EFFECTIVE EXECUTIVE COLLABORATORS

The “Competency Model of Effective Executive Collaborators” (7) elaborated from interviews realized with managers of various American public administrations, integrate three collaborative competencies considered as being the most significant: 1) “Interpersonal understanding” includes empathy i.e. understand other perspectives and needs, understand motivation. 2) “Teamwork and cooperation” indicates a not individualistic perspective during a common realization: the co-workers do not appropriate the individual merit for results which arise from a collaborative effort, the resource sharing and collaborative interpersonal conflicts resolution by communication i.e. be opened to conflict for the purpose of gaining new perspective, seeks “win-win” solutions to problems. 3) Finally, the “Team – leadership” includes bridges diversity i.e. consider in an opened way the point of view of each, no matter the hierarchical level; and create a

line of sight i.e. bring everybody in the same direction from different points of view.

THE COMPETENCY MODEL OF EFFECTIVE VIDEO GAME PLAYERS

Within the framework of a study in which we observe CounterStrike players during LAN parties, and conduct individual semi-structured interviews, we tried to build a model of effective players. Our results indicated the following dimensions (8) (see table 1).

Interpersonal understanding

The interpersonal understanding between the players is important for playing. For 97 % of the players, it is a fundamental competency, the players speak about it spontaneously by describing lived situations. As for the dimensions identified in (7), the players make reference to qualities relative to empathy on one hand, e.g. put himself in the place of others, to feel or to try the feelings of others, and to motivation on the other hand. We pointed three significant indicators relating to the empathy: the knowledge of the others (87 %), the understanding of the others (70 %) and the listening (57 %). Two indicators relating to the motivation can be identified: the commitment (73 %) and the perseverance (50 %).

Teamwork and cooperation

The teamwork and cooperation, more specifically the "teampay", is raised by all the questioned players as a competency of an extreme importance. The dimensions pointed by the players can be distributed according to the same typology as in the "competency model of effective collaborators" (7). An aspect of the teamwork and the cooperation is the common perspective with regard to the achievement of result i.e. a non-individualistic but collective perspective as for a common realization. Three indicators are significant: the cohesion between the members of the team (83 %), to avoid the individualism in the game (67 %) and the strategic aspect (57 %). The altruistic vision as for the sharing of the resources is the second aspect of the teamwork and the cooperation (share the resources and help the others). Three indicators connected to the altruistic vision are significant: helping others (77 %), dedication to others (57 %) and sharing the feelings of the game (53 %). Finally, the third dimension of the teamwork and cooperation is the collaborative resolution of a conflict i.e. resolution through communication to reduce the interpersonal conflicts, envisage new perspectives to find solutions "win-win". Three indicators are significant: the communication (93 %), the respect for others (70 %), and avoiding insults (53 %).

Team leadership

For 87 % of the players, the management of team-leadership is a fundamental collaborative competency. A first aspect raised spontaneously by the players during the description of a lived situation, is the overtaking of the diversity (i.e. consider in an opened way the point of view of each, no matter the level of game). Three indicators

relating to it are significant, and concern particularly the qualities of the leader: the attitude assertive (77 %), the charisma (63 %) and the experience (60 %). The creation of a line of common sight i.e. from the points of view of the others, bring everybody in the same direction, find the possibilities of collaboration with others, was also quoted by the players during interviews. We notice that three indicators associated to this dimension are significant: the delegation, the sharing of the leadership (73 %), to express the discords (63 %) and to rely on his (her) leader (50 %).

Competencies	Indicators
Interpersonal understanding, empathy	Knowing partners "IRL" (in real life) Understanding other perspectives Listen to, to be attentive to what says around, to take into account others point of view
Interpersonal understanding, motivation	Engagement Patience, perseverance
Teamwork and cooperation (teampay) Common perspective with regard to the achievement	Cohesion between the members of the team Avoid the individualism in the game Strategic aspect: elaborate "strats", implementation of strategies of game
Teamwork and cooperation Altruistic perspective on resource sharing	Help, share the resources with the members of the team Dedication to others, avoid egoism Share the feelings of the game
Teamwork and cooperation Collaborative conflict resolution	Communication (common language), share information via "Teamspeak" Respect others and/or orders ·Avoid insults, puzzles
Team leadership, bridges diversity	Consider the point of view of the others, recognize the needs of the others Charisma, to motivate the players to act Experience, knowledge of the game (via practice)
Team Leadership, creates line of sight	Delegation (co-leader), find possibilities of collaboration Express the discords (after the match) Rely on his/her leader

Table 1. Extract from the model of collaborative competences of CounterStrike effective players (8).

DISCUSSION

It is now widely address that video games establish a kind of culture common to young people, children and teens. Children speak between them about games, they exchange during the school breaks, invite each other mutually to play at home their favorite games. For teenagers, video games are even a vector of completely remarkable socialization pathway (9). As underlines by Virole : " players' virtual communities so perform certain role of social organization even if this one seems virtual and as such, very different from what we know as young bands". However, these network games contribute to the construction of a new sociability, a digital community, and it is rare to hear these players complain about solitude in the sense where the adults understand this term. For the parents, their child seems to them solitary, locked into his room in front of his screen, but, for him, from his point of view, he participates through the game in network in a collective experience and thus fundamentally social.

Teams of players in network constitute real virtual communities. By means of LAN parties, but also forums of discussions and blogs, players are joining these communities. Via these specific portals, they find partners and join on-line tournaments.

With this short paper, we want to point out the use of video games to empower young people. It is clear that the young people who play these videos games are not inevitably marginalized. They can be cataloged nevertheless too quickly as being cyber addict. Our objective is to show that, by means of these games, the young people, disengaged or not, develop collaborative competencies which will be the ones potentially required from them tomorrow.

On the other hand as mentioned by the organizers of the workshop on "Digitalized technologies and marginalized youth", an important question is to define marginalization which is often relate to "not belonging to the mainstream culture, and thus lacking the "social capital" to partake from the benefits of a society and to have an effect on its culture". We believe that further studies trying to understand video games should enlight this question. We found that the use of video games should be looked at as enabling young people to develop key competencies.

What are the collaborative competencies mobilized in the video game Counter Strike? The model of reference we used, the "model of effective executive collaborators" (7) was initially used to set against foot of the main stereotypes around this game. The competencies of this model are specific to effective workers in the public administration,

more exactly, managers. We opted for this model, because it appeared to be adapted to the competencies we first highlight during the phase of observation of the players.

We believe that future studies need to be perform in order to validate this model. Future studies could benefit from lessons learned through this example.

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ⁱ CounterStrike is a multi-players video game which belongs to the class of "First Person Shooter Games" (FPSG). The purpose of the game is to be used by several persons in network. The players establish in team. Plays put the teams in competition, either remote during tournaments on Internet, or in presence within the framework of players' gatherings in the same place around a Local Area Network, (LAN).