Article

The Psycho-pedagogic Value of Video Games and E-sports

*Daniele Masala[1], Teresa Iona[2]

[1] Department of Human, Social and Health Sciences, University of Cassino and Southern Latium, Italy

[2] Department of Medical and Surgical Sciences, University of "Magna Græcia", Catanzaro, Italy

*Correspondence: Prof. Daniele Masala, University of Cassino and Southern Latium. Viale dell'Università - Loc. Folcara - 03043 Cassino (FR), Italy. Tel.: +39-0776.2994417; e-mail: daniele.posta@danielemasala.com.

Abstract. The human race inherited its neurobiological endowment not as an exclusively human thing but rather from all the species from which we evolved. Let us take play as an example. The concept of play has always characterized the human sphere, accompanying the child in all his stages of development and promoting psycho-evolutionary growth. To play has been recognized as the primary source of memory stimulation, attention and concentration, favoring the development of the schemes of perception and the powers of comparison and communication in the individual. Recent research in 2013 highlighted the notion that video games give adolescents and young adults the opportunity to increase and perfect social, cognitive and emotional skills, contrarily to the risks and negative effects one hears so much about. They do this through the use of the video game as a true social "gym", used in the same way as any other peer interaction, thus promoting mental health and well-being.

We live in a period of history in which the widespread crises going on in the closely related fields of democracy and education in general inexorably involve culture itself. The state of this situation leads to the final product of political crisis, politics intended as a constructive social dialogue, as an ongoing search for nobility of thought and right decisions and choices. The

consequences of all this are a yielding to private interests, the abandoning of ideals, and the arise of individual and collective untruths.

The aim of pedagogy is to overcome these crises, using education as an instrument to contrast and resolve them through direction that undoes these Gordian knots devoid of values that bring them into the present—OUR present (Corsi Michele 2018).

Thus, culture has a new responsibility—to wake up the collective moral conscience obfuscated by the drugs of power.

Contemporary pedagogy is at the heart of human sciences because it is, from the point of view of social evolution, the root, and from the operative point of view, the matrix. There is no address delivered on the human condition   that doesn't begin or end with an appeal to education as the solution, and even moreso today, even though the outdated illusions of the ideals of the progressive education of humanity   have permanently faded (Tognon Giuseppe, 2018).

To better understand this concept, we need to understand our origins. Michael Eigen, in his book *The Laws of the Game* published in 1986, proffers the idea that the human race inherited its neurobiological endowment not as an exclusively human thing but rather from all the species from which we evolved. Let us take play as an example. Eigen says that 'the concept of play has always characterized the human sphere, accompanying the child in all his stages of development and promoting psycho-evolutionary growth' (Eigen M. 1986). So then, the concept of play has always been a fundamental part of humanity, accompanying the child in all his phases of development besides promoting his psycho-evolutive growth.

Even from J. Piaget, between 1937-1945, (Swiss psychologist - Neuchâtel 1896 - Geneva 1980 -, creator of "genetic" psychology and epistemology. One of the most important scholars of child psychology, he developed a systematic theory of intelligence development in which the evolution of the child's thought), play has been recognized as the primary source of memory stimulation, attention and concentration, favoring the development of the schemes of perception and the powers of comparison and communication in the individual.

Piaget hypothesized three types and functions of play that accompany the child through his various stages of development. Between   0-24 months is the exercise stage in which his rocking, sucking, swaying and putting objects in his mouth help him to control and coordinate his movements and gestures. Between 2-7 years, the "let's pretend" phase helps the child to organize his thoughts allowing the production and manipulation of mental images during which the child assimilates new situations. Lastly, between 7-11 years the game of rules initially begins as a simple imitation of adult games but ends up becoming one of his primary tools of socialization through which he learns the importance of relationships and the social code.

Lev Semënovič Vygotskij (Orša, 5 November 1896 - Moscow, 11 June 1934 - was a Soviet psychologist, father of the historical-cultural school) considered play as a series of responses elaborated by the child to satisfy his own needs; objects are freed from their constraints and end up acquiring any meaning that the child's imagination suggests: "in play, thought is separated from objects and action arises from ideas rather than things: a piece of wood becomes a doll and a stick becomes a horse ".

For example, role playing or "RPG" is an activity or an experiential game widely used in psychology and other fields. It allows any individual to escape from rigidity and social convention, to get into a condition which protects him from the risk of making mistakes and

having to take their consequences, to give free rein to the possibility of being different from his usual self and so to bring out what at other times would remain buried. As mentioned above, if despite a strong psychological significance, role playing is a working tool and tested it largely incorporates the concepts and theories of developmental psychologists.

The most important thing about play is always the uncertainty between one's own psychological realty and the experience of controlling real objects. This is the uncertainty of magic itself, in a relationship that is recognized as trustworthy. From the play of exploration to symbolic and representative play, from the play of 'rules of the game' to playing sports, the gradual evolution of the child determines the modes of interaction in relation to the different stages of development.

But for Bruner, play is a way of learning from the inside of a controlled situation, thus diminishing the risk of the violation of the rules of society and exposing children, adolescents and adults to evolutional education. Handling instruments, improving dexterity and adapting new ways of behaving to the various situations that arise are actually the educational functions of play. Even in adults and adolescents there is a need to play which manifests itself in various ways and measures in response to the will to put oneself to the test by means of the so-called "-Moratorium of play ". Play is fundamental to growth, and it's important to continue playing—whatever the age—in order to relax, distract oneself and be with others.

Video games and the virtual world are the epitome of adolescent and a growing percentage of adult necessity. Through them one can make one's own creative imagination come alive in "alternatives to life" by means of the interpretation of new roles and environments. To reduce the definition of "video games" to a simplification, namely, "a game transmitted on a screen", grossly limits the iteration and comparison that the online world offers.

Considering the incredibly wide reach of the phenomenon as well as its continual spread in ever more heterogenous contexts, the range and and accessibility of video games have been perfected, furnishing users with the possibility of going online and interacting with other users. On many fronts, this occasion for socialization recalls different psychological concepts to mind, such as the need for connection and comparison, the game of rules and the human instinct for social contact. In many aspects of their form and content video games offer the player something more than the simple opportunity for passive distraction and fun.

Moreover, through the construction of a personalized avatar, the games in vogue at the moment allow the user to translate his own body image, his own capacities for coping and problem solving and give him the opportunity to put his social abilities to the test.
Recent research done by the Americans Ferguson & Olson in 2013 highlighted the notion that video games give adolescents and young adults the opportunity to increase and perfect social, cognitive and emotional skills, contrarily to the risks and negative effects one hears so much about. They do this through the use of the video game as a true social "gym", used in the same way as any other peer interaction, thus promoting mental health and well-being.

Besides this, the action of playing video games is a significant emotional experience which deeply impacts cerebral tissue. This was highlighted by the research of Gottman and colleagues (1986) where the way in which the emotional value of the game is transferred to reality is clear; in fact, children use their own experience accumulated during play to solve new problems the same way in which adults use precedent experiences to apply to new situations that come up. The educational

value of video games is also associated with the development of behavioral, interactive and competitive skills through the use of online connections and instruments of virtual realities that are ever more fascinating and zeroed-in on the "active" user, protagonist of his own cognitive growth.

The meta-analysis carried out by Uttal (2013) evidenced the way in which spatial skills deriving from the reproduction of "shooter" video games bring about positive effects and learning, albeit obtained in less time yet with permanent results, that should be viewed as equivalent to formal courses aimed at the development of the same skills. The experiences of groups of online players highlight the way in which every participant transfers his own competences and limitations to his personal avatar, offering his strong points to the group and putting himself in the condition to learn, increase and perfect cognitive, emotional or social skills. From an analytical viewpoint that focuses on the positive aspects of the use of video games, the push for success and the reaching of set goals that they entail end up promoting a new life-style.

This gaming experience finds its real translatability by ultimately being used in the complex experiences of life. In a purely psychological key, this represents the aquisition of a motivational style that, through perseverance and focalization on the objectives, allows those objectives to be reached with success.

One of the biggest controversies about the subject of video games and their use has to do with the role of the emotions and the impact that violent or aggressive video games can have on the players, more than any other type of game. How much video games can be used to unload frustration and malaise is unquestionable, but they may also be an instrument for the management (Ruggero, 2000) of moody states and the improvement of emotional states.

Time spent playing one's favorite video game would allow the relaxation of the emotions and a noteworthy decrease in negative emotions (Russoniello, O'Brien, & Parks, 2009; Ryan, Rigby, & Przybylski, 2006).

The negative feelings are accompanied by the development and growth of positive emotions such as pride, participation, sense of belonging, abandon and mastery; that is, all the sensations and emotions experienced in the course of the best group interaction, fundamental to a more-than-sufficient well-being in the adolescent through the increase of self-esteem and the decrease of anxiety levels (Csikszentmihalyi, Rathunde, & Whalen, 1993).

From attention to the positive effects of the use of video games and from the evident, more-than-positive relationship between the gaming experience and the educational experience, the term "edutainment" was coined in the early 2000s arising from the union of the words "education" and "entertainment" (Gee, 2003; Antinucci, 2001; Prensky, 2001). This new prospective furnishes us with a target—that of overcoming the opposition that exists between learning and playing through the involvement of video games.

We wonder whether the the educational institutions are suitable and ready for this momentous change: a rich, interactive multimediality that connects the dream world and the real world through play, allowing the player the volontary acquisition of contents, contexts and information while making choices towards the solution of the problems he is presented with and reflecting on the consequences of his own actions.

It is possible to distinguish two types of learning in video gaming (Thomas e Brown, 2006):

    --explicit learning, which regards the acquisition of values, rules, rites, and knowledge of the narrative contexts of the games, and;

--collateral learning, which is based on the acquisition and development of attitudes and competences which are functional in the game but are also applicable in real life.

Pertinent scientific research has evidenced in what ways and to what extent this type of gaming experience allows the   triggering of significant changes in the players, developing and increasing their leadership and role-management skills, as well as their capacity to be part of a group and interact for the achievement of a common goal (Dijk e Broekens, 2010; Jang e Ryu, 2010; Johnson et al., 2009, Williams et al., 2006).

The term e-sports (electronic sports) was coined and spread with a certain rapidity, rising up out of exactly these same things and conceived as a true mediation between humanity and computer (Hamari e Sjoblom, 2016).

It's not a simple video game but rather a new frontier of group games and sports competition.

The same as any other competition,e-sports allow one or more players at a time to interactively benefit and set in motion real competitions of different types of video games.

These electronic sports end up being compared to athletics in terms of hours of practice and the team spirit they stimulate in the player.

Even though these include not only sports video games, the most correct definition of e-sports refers to a recreational activity involving the mental and physical abilities of the player in a virtual online environment   (Lee, An, & Lee, 2014).

Other studies have focused their attention on the positive effects of e-sports in adolescents and adults such as the strengthening of cognitive abilities, improvement of family relationships, obedience to parents, enhancement of relational competences   and scholastic performance, abstinence from the use of drugs and alcohol (Jonasson, Thiborg, 2010). E-sports clearly seem to have beneficial effects   on youth not only because they develop and potentiate psychological competences and skills, but also because physical sports and e-sports seem   to have the same potential benefits on physical health.

Video games are able to develop and strengthen at least three psychological dimensions in the participant, the same as any normal sport, which include; the strengthening of the success component (role development, competitive skills), the social component (socialization, relating, teamwork), and the participation component (discovery, role play, personalization, evasion) (Yee, 2006). Research through the literature on this topic by the Entertainment Software Association in 2013 showed that 45% of video game players is composed of women, 31% of which are 18 and over. The motivations for these women are related to their body image and social relations, while for men, the motivations are competition and display of skills. It is principally men who seek out competition and confrontation (Bem, 1974, 1981).

For women, the main psychological motivation is related to self-esteem and belonging to a group or better, to a couple much more than aggression and competition, which is why women say that their introduction to video gaming arose from the implicit or explicit request of their partner (Yee, 2008).

Though playing with their partner is the preferred condition for women, men are more attracted to playing alone or with other men they can measure themselves against.

The thing that is common to every new form of technology, video games included, is the worry that these can all alienate us from the real world and even make us lose contact with reality. The

multiplayer function of the more modern consoles allows the structuring of social interaction and exchanges of communication during a game, but neglects the characteristic elements present in the practice of real sports which include:

--the multiple variables present in real games as compared to the sequential order of the same video game schemes , structures and rules used every time the game is   turned on;

--the chance to recognize sentiments and emotions in one's playing partner or adversary as compared to the cold, stereotyped facial movements or vocalizations emitted by the characters in the game, and;

--the chance to enrich one's values and culture which differentiates men from machines.

Video games involve and activate many components in the human sphere   which range from the emotions to stimulation of the cognitive areas to the scale of values, social desirability and social relations. Desires, satisfaction, and gratification have always been strong motivators for human action and do not depend on where people come from or the type of game being played, nor do they depend on the type of person the player is, his gender or socio-cultural background. What has been worrying experts the most in recent years is the influential and massive use of the virtual world as a "gym" and "theater" for skills that are occult or little used in real life.

The pessimism and worry over digital "natives" or "immigrants" (Prensky, 2001) could have to do with with the difficulty of some adults to understand the use or benefit that passive and alienating machines might possess. These include the generations raised far from the context in which education, social relationships and machines could come together and favor progress and opportunity.

Recent scientific literature has brought to light worrying themes such as the "new addiction", that is, the risk of becoming dependent on the Internet, pathological gambling and other forms of dependence which, in some circumstances ,   turn into real psycho-pathologies.

News coming from all over the world tells us that this "active dependence", the sole culprit being modern technology, is able to undermine the social and cognitive abilities of a subject to the point that it can alter his perception of reality and condition his behavior. A new form of dependence now exists under the guise of technological privation the symptoms of which include brusque mood changes, negative, insistent thoughts related to constant dependent behavior, isolation from others, agitation and alteration of the perception of reality. Video games and the virtual world possess a capacity to attract and submerge that other systems or objects that thousands of users interact with do not. (Fulco, 2002);this explains why it is so hard for non-users to understand the bond that exists between technology and youth. Video games enormously influence the emotional, cognitive and social spheres of users, heightened by relational desirability, and so are able to run human actions.

This is true particularly for the adolescent group regardless of sex or socio-cultural background. It is a language used by a machine, made up of desires, satisfactions, and gratifications that makes one reflect on the double-edged sword of modern technology: is it a positive or a negative instrument? Beneficial and harmful are the two sides of the same coin. In reality, users are not immobilized, passive subjects that have been emptied and hypnotized by destructive machines. Today the possibility of interacting with new users connected from any place on the face of the earth gives us the opportunity to experience, develop and perfect our social abilities much more easily and with less inhibition.

Knowing that we are not in direct contact with other users safeguards us from possible refusal, and allows us to see how we measure up to others while at the same time permitting us to risk more fearlessly.

This is concrete among the young, particularly adolescents, because they are going through the most contentious and turbulent period of development during which self-esteem, cognitive skills, autonomy and peer relations are the main fields of conquest. E-sports and video games allow ample space to test many of these while offering a lower risk of failure.

If, on the one hand, this adolescent throwing of oneself totally into the virtual world inevitably creates worry among adults and experts, on the other hand we see that it is also true that if these new instruments are used with moderation and control, they can give every youth the opportunity to test himself out, invest in himself and more than sufficiently overcome this turbulent period.

Today, technology is able to   surprise us, scare us and transform us so subtly that none of us is fully aware of it, insinuating itself not only into the lives of each of us singly, but also into organizational, social and cultural contexts shaping and modifying us in relation to the demands of an ever-more digital world.

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