The importance of games in e–Learning

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Abstract

Along last decades it has been developed didactic strategies. They have been helped with games’ computer by teaching-learning process. They have been diffused trough of TICs on Line with many educate viewpoints. In this case it has helped in social-cultural theories that have proposed starting and promoting of educative competences, trough e-Learning tools, which there have incorporate Social networks. Do a balance of e-Learning’s game be able to develop in open access, founded specially in 2015 years ago. Documental review with transversal cut which rescues pedagogical view points and research finding implies ludic activities and his relationship games-competences together. Proposing to apply social historic cultural theory in Learning’s game with competences activation trough Web 2.0.

Playing, games, e-learning, MECs

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Introduction

The game, imagination, fantasy, simulating, as part or entertainment, are unique aspects in humans learning throughout the lifeline. Constitute a part of the personality, start from the common sense knowledge and can be an engine of development to reach metacognition. Today, with the advancement of information and communication technologies, ICT and learning technology and knowledge, CT scans, there is a huge amount of games creations in different platforms which accumulate thousands of them and new applications that allow people to transform themselves while they go away from their reality. The games are diverse, but in this article we are interested in talking about those which were made with a didactic function.

The game

Games aren't for a specific age, or have differences between social classes, ideologies or any differences between humans, they are played by children and there are games for adults. At the moment the person was born establishes a set of relationships with the environment, "the game, from a biological point of view, should be the natural school for development, self-education and exercise the skills of the child; in preschool it covers almost all of his behavior "(Vygotsky, 2006: 40-1). It is the first step in the process of cultural development of the child, who goes from the inner form of behavior personality, which is the basic mode of his thinking, to extern his personality and his thoughts, with the integration of thought constructs itself collective- his personality by an intellectual movement of dialectical order, which was encouraged at once and developed -through education- usually configure complex process of thinking, as a scientific thesis.

Making the knowledge grows as it is a part of a stage of rational thinking, individual and intellectual heritage of humanity.

Virtual learning environments

Every time in a while, it is essential that the student has a variety of learning environments, which are placed in virtual space allow sharing knowledge, from there the need of creating appropriate training areas of knowledge, incorporating relevant digital content, built with aspects of art, perhaps with the use of drama, comedy and various forms of expression, because the game complements the narrative, going through verbal or written expression to gestural-body and graphics, it includes not only the practical activity by itself, but appeals to sentiment psychotechnics in combination with cognitive-reflective activity (Padilla, 2014).

Learning environments, in digital environments or network, "allow participants in the learning process look for, contrast, understand, manipulate, perceive and reflect on the importance of information for the scaffolding of knowledge, supported by collaboration, participation, cooperation and creativity to provide and receive learning "(Moya, 2013: 5) These are supported by educational materials online media that are usually included in cell phones, tablets, laptops, and even wrist watches and other devices, an issue that increases the number of subscribers to various social networks that adds tools such as those provided by Google+. This model of communication, supported by educational purposes, changes the traditional forms of construction of environments as well as they are used to strengthen teaching-learning process, PEA besides the ubiquity to provide educational characters who can be simultaneously in one or more countries and in different time zones, participating in the same game.
Game activity

From its birth the human being is engaged in activities that contribute to the formation of their personality, in these activities humans interact with the natural and social phenomena through games the child begins to learn with funny activities that initially focus on his own body, in exploration by repetition of sensual perceptions, kinesthetic sensations, vocalizations, etc., then the child plays with people and accessible objects that allow the child to own the qualities of objects, the procedures to operate them, ways of relating to others to reaffirm or transform the knowledge they will provide. Thus, by constructing various scenarios to solve problems or achieve dreams, they are building by the child (Esteva, s/f and Erickson, 1983).

The baby pretends crying to see what the wavelength is more effective to demand the attention of the mother, or can perform experimental excursions into the body of the former and the prominences and holes in his face (Erickson, 1983). Throughout the first year of life, learning activities go through manipulation and recognition of objects, imitation from the adults, all of these till the age of three, at this age children changed the meaning of the object.

From that age, the child learning activity in the game takes place out of direct perception; it’s an imaginary situation (Vygotsky, 1997). Then, the game is an inexhaustible source of transformations of reality that reflect and encourage the development of creativity. The potential developed is linked by the historical, cultural and social development as well as the environment in which it was developed.

Recreational activities are the basis for people to develop cognitive processes with interactive procedures that enable humans to move from one thinking stage to another, because playing with other people, regardless of age, requires the design of the action in the internal imaginary plane, along with a certain orientation in the system of human relations and the ability to coordinate with other participants; what the need to act on their own, to establish respectful relationships and coordinated with playmates, implies express opinions, to consider others, offer or ask for help, direct or be directed adds; therefore feeds the development of the will. (Esteva, 2003) there also comes into the game the emotional aspect that affects cognitive capacity.

It has been shown that the intensity and emotional quality is higher during recreational activities, children's playing facilitates the emotional development as a set of actions to stimulate children's education (Zycha, Ortega-Ruiz, & Sibajaa, 2016).

On the other hand, it promotes "values such as love, appreciation, courtesy, cooperation, coexistence, equality, independence, integration, justice, honesty, integrity, loyalty, participation, punctuality, tolerance and solidarity, besides a playful atmosphere there are strategies designed to create a harmony, well-being and pleasure in the learning process (Camacho: 163). In this environment the imagination is prolific, as inherent to the game, is also a complementary stage of it. For Vygotsky L. (2001) finding solutions depending on the imagination, checking requires logic. The process of imagination in early childhood is abundant, it can mentally transform a set of chairs on a train, a boat or a rocket, they are able to ride on a broomstick or being presidents of a nation that give instructions to work as playing.
As they are advancing in developing in their level of abstraction and, in adolescence, they can do without scaffolding material to make general ideas and use them with fantasy, which is beyond the game because it is usually done regardless of objects, or relationship with other people or with a set of ideas. Even in the simplest abstraction, in the most elementary general idea in general) there's something about it ... any generalization is a going further on life and at the same time a deeper and truthful reflex of themselves and their lifetime, in each general concept there is some fantasy" (Vygotsky, 2001: 61).

Over time generalizations are moving towards finding impossible things intuitively, man builds bridges or scaffolds abstract character with which begins to structure mechanisms that in many cases, lead to innovative processes that promote new reality. By using the adolescent fantasy idealizes reality and seeks to transform it from its idealization. Under the social conventions "as the child grows stop playing; replaces the game by imagination, refuses to seek support from real objects, instead of playing, uses fantasy, build castles in the air "(Vygotsky, 2006: 213)."

It is in the activity of fantasy in where starts the will, which influence expanded representations, the desire not satisfied is the one that stimulates fantasy, in that process the desires are fulfilled, the reality is verified "(Vygotsky, 2006: 221). The will of acting against the reality implies a certain act of rebellion, which entails the exercise of building possibilities to achieve a degree of autonomy of the process of thinking.

## Interactivity and social development in the multiplayer game

The game has among other features, the possibility of interactivity in it, the visual motor aspects are very important to the extent stimulation of the ability to socialize in learning games , activate mechanisms of the thinking process that intersect with the feelings and lead a person from a simple visual perception to a conceptual structuration in a more more complex way just because "the interweaving of language with the processes of perception visual-direct new and complex synthesis form, restructuring these processes on a new basis" (Vygotsky, 2006: 122) . Digital content contribute the visual-motor aspect in most parts to the interactive proposals.

The word game includes participation, have fun, abstracting from the outside world and immerse themselves in the playing situation; it is part of social interaction, it has to do with relationships between several people. Although virtual space, at the beginning, it was collocated a side the physical contact and it has maintained inter mental kind. Recently, tools like Skype make possible the interactivity of face to face games, so the interaction and activation of interpersonal skills has increased (Nkatha, et al., 2015).

The Tics have presented a rapid development, there are examples of interactivity through computer games that go beyond, among others, the limits of nationalities, such as mass games between multiple players, Massively Multiplayer Online Games, MMOGs that, thanks to the Tics on the Internet can be used, throughout the Earth through virtual interactions in the world, where hundreds of thousands of people usually connect with academic, commercial, recreational purposes and diverse usages.
The game becomes more effective when it is supported by creative learning scenes in social games and peer influence or rather the mediation of expert systems that can increase the academic level and help to increase the cultural capital of the users. (Padilla, Flores, & Quintero, 2014).

Interactivity is not as anarchic as it might seem at first glance, then, it is ordered from the interests and preferences of users. Hence the creation of games is also involved in the regulatory mechanisms and the success of a site is derived from the motivational mechanisms used either by influence of marketing or imposing its own rules of operation.

The rules of the game

The rules of the game in e-learning are not as free nor as consensual as are spontaneous in children's games as in all games, the online game has socializing advantages such as making a basic regulation, where people feel the need to overcome the immediate impulses, achieve the coordination of personal and collective action. In the non-virtual space during the game, the child is usually part of the experimental trial and error simulation scenes, it is not the same in the virtual game, for example, there is a literary work called Ender's game, which prepares a child to take battles in an imaginary war, there he becomes in a great military strategist (Scott, 1985) enabling it to computer games to defeat an enemy that he doesn't know, a game that also could have been designed to train them in negotiating some peace agreements. Beyond this cognitive training, his two brothers play to be adults, pouring their opinions above critical issues to the nation in virtual environments, having false identities, making the adult world discussing their dissertations. In that book hiding the face to face interaction causes not detectable attitudes except for a small number of people who decide to let them act (Scott, 1985).

Stimulation of the thinking process, as an explanation permission of error making in simulated environments to coexist in the world of reality or the most complex game of representations of reality can be achieved with a broad development and a deployed form of regulated games.

The creation of computerized educational media, MECs can also be the basis of strategic technical preparation to succeed in Education, war, business or politics; among its characteristics we can say teaching strategies includes role play.

Roleplay

Role-play can be mimic patterns and/or a process of them, opens up new possibilities of explanation and analysis, then, by joining the body language, written, graphic, oral, the game is incorporated into structuring teaching and learning process in the search for the appropriation of knowledge as a way to generate explanatory alternatives a reality that is failed or reaffirms and promotes the rule changing, hence the construction of a new social game with new rules because the unpersonification to represent, for instance, a tree, a rock or the goddess of the lake or the god of air make a thought of a reflection of the characteristics of objects, ideas or events, leading to establish a historical or at least chronological order of a representation, which allows to activate the sequential memory in children and adults (Padilla, Flores, & Quintero, 2014).

A study in a Chilean university by (Gaete-Quezada, 2011) shows the effectiveness of the role play in training professional skills, in university environments that allows the promotion of a widespread participation based on plausible and imagined situations that "break social conventions, universities, promote two additional roles to the traditional ones, they are the coordinator and an observer."
A situation that permits the social interaction of people and develops aspects such as communication, leadership and teamwork, (José David 1997, p. 19 cited by Gaete-Quezada, 2011).

The representation has been a teaching practice that in the Western world and it is promoted from ancient Greece, more internet tools facilitates many processes through the use of some avatar or a set of them.

**The game of the debate**

For Vygotsky (2006: 227) "discussion induces the child to systematize their own opinions, it constitutes the first form of behavior among children who later becomes the individual form of its behavior". In the debate turns voluntarily what the child knows and combines the lessons learned from their experiences in doing so the level of voluntary attention increases with the dialogic action established with others, the child learns that to be heard, he has to listen, to be respected he must respect, to interpret what others say he may have to investigate the meaning of what they hear, with all active social general skills, which according to the author above mentioned, result in the application of law of social genesis (sociogenesis) of higher forms of behavior where the language is at first a means of relationship, communication, a means of organizing collective behavior, becomes later in the fundamental means of thinking and all higher mental functions for structuring the personality.

Listening to others and internalizing thoughts allow children to open their mind to different situations and designed to think about thought.

That is, through-internal and external-debate the law of double stimulation, which involves interpsychological relationship in which you listen to the other to incorporate what it is considered valued and intrapsychological relationship that could rearranges some mental functions and the own ideas, through it can access metacognition and return to action of the debate, considered by creations and own combinations by collocating the ideas discussed as a possible consideration of the intellectual heritage of others and combine it with their own way to reorganize the thinking process. This discursive skills, which use a prior knowledge, memories, experiences, desires or projections, enabling reflection and creativity.

**Online entertainment**

In the latest twentieth century and early twenty-first century seller of video games has had a great success, only in 2008 in the UK and the United States of America, the sales of these products were increased as a 40 and 20%, respectively, generating 4.64 billion pounds the first and 32 billion dollars on the second day. In the same year Nintendo released its new console and the first day sold 600,000 units, the sales were to 50 million by March 2009. If that games Microsoft, Xbox and Sony PlayStation are added, the social influence and the proceeds thereof are impressive, even more impressive is the application of entertainment technology that can be used for educational purposes (Whitton, 2010).

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The severity of focus on their daily lives, time remains stressed at work, multiple concerns of various kinds of social reality, inhibited bodily impulses and possible failures in the love life; limitations derived intensively by the role they have in society. Erickson (1983) says It was not surprising that persons feel like persons only when they play.

It should be noted that the game is a relaxing to the teacher, family and society, whom can find a kinder way of presenting learning environments, generating processes of attraction and motivation to compete and complement the entertainment for training purposes.

Socially, people invest in commercial video games, it is investigating whether they do, in the same proportion, educational institutions or closer consumption in quantity and quality are sufficient or appropriate although apparently the technology can be used for learning it represents a high cost. It is important to invest in it, because once in the process can give multiple dividends in the fight against inequalities, that today generates insufficient training and poor responsiveness of educational institutions in the acquisition of professional skills for life.

The e-Learning Game

It is important to quote that computer games designed for learning have been derived from traditional games. Its importance and its benefits are the main proposal of this writing, so the idea is to conduct people to enjoy knowledge in any form you can find. Is very important take advantage of the expandability of ICTs and Tac and struggle by open all recreational products that provide and feed scientific and technological knowledge, which is generated daily in the whole humanity and can be shared via online open access.

The construction of Media knowledge with computerized educational, MECs that are uploaded to the web, has to consider that "the adult (designer) is a partner of the game, playing with children and adults (users), and from its position provides suggestions, proposals, and if it is necessary he carries demonstrations, to conduct the activity towards achieving educational objectives without losing the objective of the user needs (children or people of any age), according to their interests, and above all must encourage their initiative, creativity (Esteva, 2003). Taking its heuristic capacity, where you learn by discovery, the purpose is to transmit knowledge, "the aim is that the learner moves from where you are to where the teacher wants to reach" (Guerrero, Colonel, & Rodriguez, 2014: 48) through software that allows them to acquire knowledge in a didactic way.

Today it is essential to consider education from the application of ICT inside and outside the classroom, giving the importance of the digital content as an educational aspect that exists in the internet in e-Learning platform where all educational actors are involved, it is important to start from the student perspective and from the teacher researcher on the level of design, management, operation and development of teaching-learning processes (TLP).

The game in digital content

It is essential to incorporate virtual tools, add to face to face contact the blended of traditional classrooms with internet because it involves the development of digital and interpersonal competence adding and combine with the rest of the skills acquired.
Having and applying knowledge of technology that allow to select and manage the tools and resources from the Web 2.0 can reduce the digital gap between teachers called digital immigrants, and students also called digital natives, so that teachers know and apply active methodologies, so that the student is able to learn by doing and experimenting with constructivist techniques, collaborative and cooperative ways.

Among other technological tools are the MMOGs, whose popularity reaches 5 percent of traffic circulating gaming on the Internet and increasing steadily the number of players. Such games are the first shooter, first person shooter (FPS) throws massively as a game to be taken by others (whom assume strategies in real time, (RTS) to respond to it, so this e grows into a social game.

MMOGs can be presented as sports games, battles fighting games and riddles, puzzles or jigsaws. These games are had rapidly expanding in Internet traffic and your functionality is staying with the Massively Multiplayer online role-playing games. MMORPGs have occupied 34% and 48% the efforts of researchers in engineering of intelligent systems and architecture in electronic designs in the first decade of the century. (Vahid Golderzehi, 2015).

Networking Technologies, NT

The changing needs of learners or searchers knowledge it transforms apace; (Nkatha, et al, 2015 citing Oradini & Saunders, 2008; Cubukcuoglu & Elci, 2012) say that students use most frequently Facebook, Twitter, MySpace and other social networking technology, called networking technologies, NT. Although recommendations for teachers it inclines to WEB 2.0 many teachers make use of social networks, which seem to have a greater acceptance of students and cause greater closeness between both as well as student-student.

According to the definition of Boyd & Ellison (2008) the networking- social networks are based on the services provided by the Web that allow the construction of semi-public profiles or According to the definition of (Boyd & Ellison (2008) the networking- social networks are based on the services provided by the Web that allow the construction of semi-public or individual profiles with unlimited system that articulates with the profiles of other users sites which in turn share one or more links to other sites or networks and interconnections, which is as us once articulate with more complex systems of connection, the nomenclature is varied and can easily move users from an Internet site to another.

In addition, blogs and instant messaging produce a feeling of closeness between users. Nearby creation environments and a sense of autonomy own management and sharing sites are potentially proactive to changes in education. They will note the need to compress and expand the private space, the urgency of the human being singled out while belonging to the global world, which as possibility of "existence" that has made been visible.
Incorporating Web 2.0 learning includes NT sites and makes possible strategies multitask in their daily academic work, which LinkedIn adds, on the other hand, connect users with their own lives, so to speak, with activities nonacademic or teaching-learning semi schooled or unschooled. The truth is that the NT open many possibilities as to participate intensively in activities such as content sharing, open forums, conduct discussions and especially support their opinions and confront different types of groups that share differences, about the canons established (Silius, et al., 2010 cited in (Nkatha, et al., 2015).

The results of a research conducted in Kenya showed that the use of more sophisticated technologies such as technological social networks are improving communications between students and teachers, also reduce the distances to access various courses that were previously inaccessible. In Nigeria it became a study in which was shown that the use of the sites of technological social networks have increased the interaction between friends, connecting classmates and providing online studies, in addition to intensify the discussion of national problems and the use of films as simulators. (Miss, Omekwu, & Nnaka, 2014, quoted in (Nkatha, et al., 2015).

**Simulators**

The Simulator’s game is part of the implementation of common sense it allows the transition process to the structuring of abstract thinking, not considered as such when its results don’t are systematized knowledge and they have regulated collective behavior (Whitton, 2010 ). By systematizing the discovery it has been built and would use to simulators. The man since childhood to adulthood has been building credible models that prepare to face realities and allow to create scenarios, before being in the real world.

The laboratory is a stage it have in front of the drawing board, made the past alive and thus relieves the residual effects, to reconstruct the model situation it compensates for their failures and strengthens their hopes. Anticipating the future from the point of view corrected and based on shared past. (Erickson, 1983: 200). The simulators with educational games, hypertext systems, tutoring systems, etc., are part of the MECs with which exploratory micro worlds are formed with the help of a computer programming and expert systems (Guerrero, Colonel, & Rodriguez, 2014).

Digital skills are part of the architectural, engineering, medical, etc., they aid learning of science and technology. Practically the simulators are used in various universities in the world (Hong, et al., 2015).

**Competences for the game**

The game in e-learning opens the way for the acquisition of tools professional life interpersonal, communication and digital and intercultural skills. If competition is understood as the ability to apply learning or behavioral norms in different contexts, the game pretends to promote through various forms of interaction involving emotions, knowledge and values with, which are historically and culturally built in society, hence the teaching of the game must to be constantly updated.

When professionals are prepared professionally, for example architects, engineers, doctors, etc., they have training of professional skills that are necessarily lead to the use of ICTs. The attractiveness of activities for LTP have the priority aim of strengthening cognition to achieved an acceptable level of professional competence to move from operations and simulated operations and real constructions processes.
On the other hand, there are examples of its usage in the LTP like Liesenfeld, et al., (2015) which describes a consistent interactive model in developing a questionnaire online that reinforces the concepts learned in understanding the photosynthesis, in which detect misconceptions, for through that use of simple materials that exist in their environment and are inexpensive they would be able to create the model teachers adapted the degree of complexity to the average level of education in a public school of west of Parana Brazil.

They are given the task of designing educational models with three-dimension, colorful with dynamic structures that stimulates visual learning and can promote manipulation of objects presented to the student; that allows to emphasize the details on an empirical basis for further theoretical approach and clarify scientific concepts and transit superficial learning to deep learning.

The use of models enables experimental work activities and questioning, encouraging the promotion of reasoning, both teachers and students.

To achieve this both it has to rely on past experience to design on the financial and material resources at their fingertips and especially the voluntary act of learning and teaching strengthens the relationship, more or less symmetrical among people who share the common purpose to learn and teach one to other. The previous model allows the process of implementing the approach of action research and quantitative and qualitative analysis which added to the stimulation of reasoning, via experimentation, promotes peer interaction with the object of knowledge, which would be enriched with the result of applying the pretest because it allows the initial level cognitive basis for implementing the model and evaluate the restructuring needs in the post-test assessment learning.

Thus, the presentation and discussion of results among peers in the classroom, which could take place in a virtual space encouraging reflection and consolidation of knowledge, which are supervised by the teacher.

In addition it is taking into consideration prior knowledge both students as teachers to pass of a simple content base to another more complex, giving opportunity advancing students the from an initial to another area where new knowledge is created.

Conclusions

The assertive design of the game must start from the constructivist approach and indeed it does in most cases, but much depends on the teacher as the facilitator and provider of correct software and the creating of the infrastructure and services for the following up with digital games which are that their activity is necessarily involved taking elementary considerations in the construction of meaningful games learning with the participation of all educational actors.

Use preferably open access sites and thinking intercultural differences of users as an way focusing and doing the age, culture, history and particularities of each country. Although they may be shared they could to have the necessary flexibility for adaptations with mechanisms and relevant activities and useful actions to the degree of development of individuals, institutions, regions and countries.

We are agreement with viewpoint of (Whitton, 2010) when he do analyze importance of abandon false perceptions to consider games as a childish thing and implement it at all educational levels and especially at the top level, seeking to learning objects whom comply with at least the basics which it is the reliability of the information, friendly platforms, flexibility in options that trigger reflection, applicability in specific contexts and connectivity.
As well as being connected with curricula that are implemented with a motivator design to aim studying and leave the door to open mind to new explanatory possibilities.

References


