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Arts and game in creative development of university teacher¹

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Abstract

The main purpose of this article is to analyze the contribution by arts and game to education performance within a global environment of academic practice. In so doing, we analyzed contents of theories stated by Vigotsky, Gardner, Eisner, Winnicott and Nussbaum. The main outcome surges from explanation of creativity as an educative connection to approach the context to the inner world of individuals. It was possible to infer five epistemic pillars related to education and the world of life, leading to possible encounters that determine better understanding of the teacher task, and facilitate his/her role by including arts and game in cognitive process: They are: Education for creation of new worlds; game and recreation of realities; symbols and creation; emotional development, and creativity as a product of artistic activities.

The conclusion drawn from the study was the need of thinking that mind is built on experience, and, when enriched by game and arts it leads to contextualize knowledge with emotional development; this educative situation makes creativity to express the sense of appropriation by people of the world they live in, otherwise, just adaptation and transference would exist.

Key words: Arts, creativity, teacher, education, game.

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Introduction

Curriculums are something more than policies, pedagogic models and adjudicated methodologies; they are development of thought and construction of mind; this reason explains the risk of leaving it at mercy of contents transference and traditional practices of passive teachers and students. Arts in education lead to a creative and contextualizing option, and game complements it; its use promotes the ability to develop a critical thought, beyond doctrines of education institutions.

The research presented in this article concentrates on teaching practices seeking development of creative thought; they have been presented and are presented through the various spaces and times, with the perspective of a better educative practice. The formative idea which develops such practice establishes five approaches that produce creative thought: utopia in search for a better world; games; symbolism; emotion, and artistic activities.

Materials and methods

Qualitative methodology is conceived taking into account the pedagogic character of the research, and complexity of the object of study: creative thought. Therefore, it is important to explain that of the four stages stated in the research, two of them have been dealt with; a first hermeneutics of interpretation of fundamental texts of primary authors on the topic, which facilitated approaches to the object of study, and a second one, which facilitated passing to the research problem, referring to situations of the national education system, within a university global project. Upon going through these two stages, this article is presented which concludes the first objective, epistemological fundamentals of creative thought at the university classroom.

The third stage corresponds to information collection by means of in-deep interviews, accompanied by Delphi questionnaires in a panel of experts who will validate findings from such interviews; specialists are recognized university active teachers. Information will be collected in the main cities of the coffee region (eje cafetero), and at state and private universities, including a good representation of teachers, having performed artistic or ludic practices. The fourth, and final stage of the doctoral thesis, consists of obtaining structured information from results of empirical information compared to those originally achieved in the hermeneutic stage.

Results

Recognition of the various postures on the source of creative thought resulted in five epistemological approaches corresponding to symbolic anthropology, emotional development, didactic games, artistic creativity, and utopic education. The teacher appeals to symbols and ludic in emotional exploration of educative processes to improve the context where they surge; creativity as a basic fundamental of the educative act is always present in these activities, and art is the founding element, as a construction of life and comprehension of the reality. The following is the result of the hermeneutic research.

Symbolic anthropology

Reality is a creation of man: German philosopher Ernst Cassirer (1874-1945), has a deep impact on the study of creativity, explains the symbol as mental conception, and states that: "human mind, strengthened by symbols, recreates the physical world in its own symbolic image" (Gardner, 1933:64). Stating in this manner that reality is a creation of man understandable by representation imagined of his surrounding through symbols, which concept explores the importance of artistic skills of thought, at stressing the idea that the mind does not show the reality but constitutes it, as the way of civilization built by what man names *symbolic animal.* In his words he says:

> Man may not escape from his own achievement, he has no other option than adopting conditions of his own life; he no longer lives only in a pure physical universe but in a *symbolic universe*. Language, myth, art and religion make a part of this universe; they form the various threads which weave the symbolic net (Cassirer, 2012:47).

Man develops his activities, events, needs and whishes, in the middle of hopes, emotions and fear, imaginary illusions and disillusions in a world of phantasy and dreams. These claims are considered by his North American disciple, Sussane Langer (1895-1985), who classifies symbols into speeches and presentations; in this manner she concretes the importance of feelings, stressing on artistic symbolization, and defines them as clearer, more flexible and articulated than logic and discursive symbols, in this sense separating from Cassirer, who dedicated special interest in language as a symbolic form, that provided a particular type of thought of individuals and man as a specie. Langer legitimates in this manner, an academic interest in symbolism and arts. Of this philosopher, Gardner highlighted "the new possibility of analyzing feelings, emotions and other intangible elements of human experience through dominion, relatively public, of analysis of symbols". (Langer, cited by Gardner, 1993:72).

Types of functions of symbols. North American philosopher, Goodman (1906-1996), starts from Cassirer's principle of uncountable worlds created parting from nothing by using symbols, and advances toward an analytical study of their types and functions, stating a system of symbols in a concept of notation system, according its approach to or deviation from the possibility of notation, music, for example, complies with semantic and syntax requirements within the western canon, definitively painting separates from all possibility of notation because its many meanings, and holistic representation of reality. This categorization is important because it establishes the possibility of distinguishing the aesthetic from the artistic, from a functionality of symbolization; this links is explained by Gardner, who, in his analysis of Cassirer states that:

This US philosopher changed the question of ¿what is art? For ¿when is it art? when thinking about how symbols operate, that is, how they symbolize in the practice. Defining "the fact that whether or not symbols operate as artistic symbols depends on which of their features are taken into account", [and in definitive he holds that] "certain works of art may show, either literal or metaphorically, important ways, feelings, similarities and contrasts of the entanglement of life". (Gardner, 1993:83).

Definitively, we may claim that symbolism provides the human being with access to the world of culture, is universally applied; in Cassirer's words, who states that "each thing has its name", but, in addition, this symbolism is also quite variable, stating that "the human genuine symbol is not characterized by its uniformity but its variability". (Cassirer, 2012:64). Let's finish with importance of symbolic feature of human life by declaring that man behavior and cultural process rests on the dominion of symbolic thought.

Emotional Development

It may be estimated that the brain function is to facilitate the future of individuals, logically, founded on evolution of their mind and based on experience of individuals, but it is decision making what leads thought to act in concordance with its reason, which Damasio locates in the same spiral of emotions. It is important to highlight that:

> Probably, strategies of human reason did not develop, neither in evolution nor in any insulated individual, without the guiding force of mechanisms of biological regulation, which emotion and feeling are notable expressions of (Damasio, 2011:22).

This statement is based on locating various neural level in the human reason, which regulate rational processing by integrating the emotional and the emotional as the basic functions necessary for survival of the human organism; these latter are centered in the hypothalamus and cerebral stem in interaction with the forefront cortex. On this matter it is stated that:

The lower levels in the neural building of the reason are the same which regulate processing of emotions and feelings, together with corporal functions necessary for survival of the organism. In turn, these lower levels keep direct and mutual relationships practically with all corporal organs, by directly placing the body within the chain of operations which produce the highest ability of reasoning, decision making, and for extension, social behavior and creativity. Emotion, feeling and biological regulation play their role in human reason (Damasio, 2011:24).

Although we deployed an interaction between emotion and reason, we do not emphatically claim that every act is right only because of having an emotional component, or that it is wrong just because it is rational, but that it is indissoluble and integrated, even in the good idea as in the mistake.

Now let's approach some actions and studies of a genealogy of emotional thought in the educative process.

Cultivation of the inner world: Emotional statement in education has its genesis in the idea released and executed by Bronson Alcott (1799-1888), based on arts, who founded the Temple School of Boston, where boys and girls were encouraged to examine both their thought and their emotion. Alcott claimed that "education is the process through thought is detached from the soul and, at associating with external things, reflects again on itself to get awareness of the reality and shape of those things, [...], it is process of self-knowledge" (Alcott cited by Nussabaum, 2010:93). At his school, classes turned around reading and interpretation of poetry, specially William Wordsworth', encouraging the students to defend their own ideas; and specially: "he incorporated to the curricular design the same idea of poetic education [and], claimed that poetry cultivated inner world of boys and girls, by nourishing emotional and imaginative abilities" (Nussbaum, 2010).

Art is an emotional thought: Vygotsky, producer of the study of human nature, from a socio-historical concern of human awareness, determines that every artistic activity reflects an aesthetic condition, and which is determined by the historical context. On this matter, he adheres to Plejanov's Marxist theoretic explanation, who claims that "all ideologies have a common root: psychology of an epoch... through which it is recognized that art in its most immediate relationship is determined and conditioned by mentality of the social man" (Vigotsky, 2005.298), centering the value of the artistic on aesthetic experience of content of the work, above the author's interest, or perception of the spectator. "psychology of arts, at being psychology of the shame, remains endless and invariable, and the only thing that varies and develops from generation to generation is its use and its enjoyment" (Vigotsky, 2005:269).

Vigotsky talks about a new method to study art, considered by German Philosopher and Psychologist Muller-Freienfels as "a Method Objectively Analytical", in which "it is intended to take as the basis, not the author or the spectator, but the work of art itself" (Vigotsky, 2005:248). At relating the concept of the artistic to the same work, he establishes that art is precisely what is not present in the object itself, but may be inferred in it, in the same way a Historian infers events parting from located objects; for such purpose, "the Psychologist naturally examines the whole work of art as a system of stimulus, conscious and mindfully organized in such a manner to cause an aesthetic reaction" (Vigotsky, 2005:249). On this matter he states that:

This method ensures us sufficient objectivity of results achieved, and the whole research system, since it starts from the study of factual events, existing and objectively calculated. The general direction of the method may be expressed in the following formula, art work shape, through a functional analysis of its elements and structure, reconstruction of the aesthetic reaction, and establishment of its general laws (Vigotsky, 2005:250).

Art is an emotional thought, because, in addition, feelings, emotions, imagination and fantasy are found in it, which play a quite important role; without them, the artistic effect would be destroyed.

But bearing in mind that there no an unsurmountable barrier between awareness and the unconsciousness, we should surpass and understand objective artistic premises based on some principles of psychoanalysis, specially those related to explanations of infantile games, and day fantasies; on this issue Freud highlights the following:

It would be unfair in this case that [the child] does not take this world seriously; instead he takes very seriously his game, and devotes great affection to it. The anti-thesis of the game is not the seriousness, but the reality. The child distinguishes very well the reality of the world and his game, in spite of the burden of affection which saturates him, and he likes to support objects and circumstances he imagines on tangible and visible objects of the real world... the poet does the same as the child who plays: he creates a fantastic world and takes it very seriously; this is, he feels intimately linked to it, although strongly differentiating it from the reality. (Vigotsky, 2005:109).

The child, like the artist, dreams of and plays, it is an interesting relationship which results in understanding the importance of these concepts for art, in which the relationship between reality and fantasy may be highlighted, and parting from it, daily dreams appear, which approach fantasy and games to art.

The artistic event bears fantastic characteristics which change thought regarding assimilation of the reality, specially in the aesthetic circumstance, that the artistic event highlights from natural events subjacent in thought. This concept is ensured by the necessary insulation of the aesthetic effect which endorses the value of imagination.

Vigotsky states the difference between psychology of the reality of psychology of art, and assigns the latter the study of aesthetic reaction. This observation is stated analyzing it from the three spheres of psychology: perception, feelings, and imagination and fantasy, reducing importance to the first, not because a clear relationship is established between art and perception, but because this one is more in psychology of reality, without ignoring its relationship and its importance, but it from the plane of which is named theory of feelings where the study of aesthetic reaction was really approached from.

Theory of feelings is understood as a relationship between sensibility and imagination, defining that

> Proper comprehension of psychology of art will surge only at the intersection point of these two problems, and that all psychological systems which intend to explain art, in fact represent a doctrine, in various combinations, of fantasy and feeling (Vigotsky, 2005:277).

On this matter it is investigated in theories of feeling from Tichener, Christiansen and Freud for whom "feeling should be included among processes of consumption of releasing nervous energy", who, according to professor Orshanski, psychical energy may be spent in three ways, as follows:

> Psychical energy or operation corresponds to the three kinds of nervous work; feeling corresponds to discharge, desire corresponds to the part of energy operation, while the intellectual part of energy, particularly the abstraction, is related to repression or economy of nervous or psychical force... Instead or discharge, in upper psychical

act, transformation of alive psychical energy into reserve energy prevails (Vigotsky, 2005:250).

Now, this aesthetic reaction should be understood from the perspective of energy discharge as a double sense aspect, a reaction of stimulus inbound, and an outbound reaction, in physical terms, a relationship of central and peripheral aspects of the nervous system, known as the law of unipolar expenditure, and may be summarized at the manner of Wundt's school, "nervous energy tends to be spend in a pole, either in the center or in the periphery; every energy expenditure in a pole involves an immediate weakening of the other" (Vigotsky, 2005:258). This dimension is understood as action and reaction of physical movement inside the organisms, which implies that any activity of one of the poles, immediately leads to weaken the other. But Vigotsky studies concluded that all work of art creates a series of feelings opposed each other, causing a short circuit or destruction, contrary to the effect of objective life, where according to Darwin,

> Perhaps it is due to the fact that every movement voluntarily realized along our life, has always required the action of certain muscles; and when performing a contrary movement, we place in action the contrary series of muscles (Vigotsky, 2005:246).

Also valid for the effect of sensations of contrary feelings. At extrapolating this physiological concept in the artistic field it is inferred that in the artistic perception, in the receptor of an artistic communication, physical reactions are produced, both in the body and in thought, this may be stated from results of mentioned investigations that:

> Has led us to conclude that every work of art inevitably involves an affective contradiction, causes a series of feelings opposed each other, causes a short circuit or destruction. This fact may be considered as the true effect of the work of art, through which we fully approach the concept of *catharsis*... Every art is based on this unit of feeling and fantasy. Its most immediate peculiarity is that, at causing us affections developed in opposed directions, retains only, thanks to the principle of antithesis, the motor expression of emotions, and at facing impulses of a contrary sign, annihilates effect of the content, effect of the shape, leading to an explosion, a discharge of nervous energy.

In this transformation of the effects of its spontaneous combustion in the explosive reaction which leads to discharge of those emotions caused over there, in everything there is *catharsis* of the aesthetic reaction (Vigotsky, 2005:265).

Imagination fundamentally is involved in undertaking art, and therefore, of creative activities, all creative activity shows two types of impulse, one reproducer, and the other that changes and creates. The reproducer one is linked to memory and operates as prints or tracks of old prints taken along life of individuals, and the one creating is the one preparing ideas or images through combination of old and new representations of individuals, "Psychology names imagination this creating activity of the human brain [and], it is precisely the creative activity of man, which makes him a being projected toward the future, a being who contributes to create, and who modifies the present (Vigotsky, L.S. 2009:9). It is important to take, as fundamental of creativity, imagination of fantasy beyond technical sense, appellative which links to the unreal, therefore, it is necessary to understand it, as Vigotsky understands:

> Imagination, as the basis of every creative activity, equally expresses itself in all aspects of cultural life, making artistic creation, scientific and technical to be possible. In this sense, absolutely everything surrounding us, and have been created by man hand, all the world of culture, different from the world of nature, everything is the product of imagination, and human creation, based on imagination. [...]. All objects of daily life, without excluding the simplest and habitual ones, becomes something like *creating fantasy* (Vigotsky, 2009:10).

Taking creating fantasy as the basis, then we may state that creating capacity is among the most important questions for pedagogy, and its promotion is the greatest responsibility of general development of education, both in adult age and infantile, regarding the latter, we may remember Vigotsky's words, that may also be expressed by Tagoré, Meinong, and Alcott, that:

> Children do not limit in their games to remember practical experiences, but they creatively restate them, by combining among themselves and building with them new realities according to their taste and needs. Their eagerness for daydreaming things shows their imaginative activity, as in games (Vigotsky, 2009:37).

Now, it is interesting to relate adult creative activity to children or adolescents, and we should accept that the more information passing for the brain, the more possibility of creating exists, therefore, adults are who may deploy more imagination, and this is contrary to what is normally stated, Vigotsky, states it as follows: "the richer the experience is, like the remaining circumstances, the more abundant should fantasy be". (Vigotsky, L.S. 2009:32). This act may result in the imperative need of providing the students with sufficient experience of real elements, in order to achieve considerable production of imagination at our schools and universities.

To conclude aspects if creative imagination, we describe the mechanism stated by Vigotsku in the creative process, where he mentions four moments: dissociation, changes, association, and combination. To begin, it is worth to remember the statement that, at the basis of every creation or creative practice there is our experience which is increased along the time, which is the support point in construction of fantasies.

We may summarize these four moments, as follows: "Dissociation is to separate that complicated group, [impression of a multitude of experiences], separated from parts preferably in comparison to others... and is seen in extraction of some traits, forgetting the other ones". (Vigotsky, 2009:31). Then within the process described by Vigotsky, there is the one of changes, taking into account that:

Prints of external impressions do not pile together immobile in our brain ... but they make processes that move, change, live, die, and in such movement there is the guarantee of their changes under influence of internal factors, deforming and re-elaborating them, (Vigotsky, 2009:31).

Once changes are elaborated, the association follows, it involves grouping dissociated and modified elements and "finally, the last and definitive moment of previous work of imagination, it is combination of insulated imaged adjusted to a system, fitting them in a complex box" (Vigotsky, 2005:32).

Here are the moments previous to creation that closes the circle in crystallization of external images, bearing in mind that this crystallization is the product of its epoch and its environment, and will part from previously reached levels, and will support possibilities existing out of him, that is, all creating work is a consecutive historical that supports itself on its precedents. It is necessary to explain that "for very individual it appears, every creation always bears in itself a social coefficient. In this sense, there are no individual inventions, in the strict sense of the word, in all of them always remains an anonymous cooperation" (Vigotsky, 2009:38)

Education through art is a process of creating ourselves. We are biologically designed to perform an endless number of functions, but such functions are possible just if we learn them, that is, gradual search for stimulus, differentiation, and along the time, the meaning. Seeing, for example, is not a passive process through which some senseless impressions are stored, some shapeless data, used by the mind to build shapes for its own purpose. "Seeing", for Susanne Larger (Eisner, 2004:57), is a process in itself of formulation; comprehension of the visible world begins with the eyes, but it is also a cultural event.

For Eisner (2004), the education process give culture two types of meaning, one anthropological, shared living, and the other cultural, which is the cultivation one, for whom,

Experience is fundamental for this cultivation because it is the means of education. Education, in turn, is the process of creating ourselves; and this is promoted by arts understood as a process and as the outcome of such process (p.93).

In addition, arts are not only a process of creation of object or works, but also creation of our lives, acquisition of new meaning, parting from establishing contact with others by sharing cultural processes, understood as active and participative, and which aspects are necessary for school formation at any phase or stage we study it. Arts produce a type of knowledge that in itself includes a vision of the context and world, expression and integration with all of the other fields of knowledge, therefore, full comprehension of the reality and a true formation do not pass without integrating arts in the various curriculums. In order to articulate knowledge as an artistic process, let's see Eisner's statement for whom "Concepts are distilled images of any sensorial shape or shapes combination used to represent details of experience." (Eisner, 2004:77). These concepts transform the private into public like arts, both processes depend on experiencing traits of the surrounding which feed our life, and our imagination. In this manner we may state, as well as Eisner:

Formation of concepts is in itself an act of imagination. But there is a difference between remembered imaged and their transformation based on imagination... which fed by sensor characteristics of experience, is expressed in arts through the image (Eisner, 2004:63).

Imagination connection to sensor aspect leads the child to play and establish links between fantasy and reality, in this manner it is a source of sensoriality and pleasure based on exploration. Any cultue where imagination is not explored, specially in education, it a culture condemned to a standstill, that is, a static fugure, lacking of opportunities. Let's see how imagination may be connected to cognitive function.

Representation performs cognitive processes at transforming contents of awareness, as each material allows it, stabilizes the idea and makes it possible to establish a dialogue with it, or develop correction or revision processes of what is intended to represent. Finally, there is communication, which is other cognitive function, as already stated, and which transforms the private into public.

For Eisher, the role of art in transformation of awareness is vital, and he bases on the fact that humans are sensible beings born and living in experience surrounding which empower the sensor system, and as individuals mature this ability and aesthetically experience the educative act, in this manner more accurately clarify concepts. Each field of formation is also related to the other scopes, which requires interdisciplinary integration in order to achieve true comprehension and application of education in the field of life, which implies that each discipline promotes the possibility of development beyond its specific sphere of action, which makes its scope to extend to other objectives. Art has four main objectives according to Teaching Arts Based on Disciplines –TABS, these objectives are:

First, teaching students to develop imagination and acquire the necessary aptitudes for quality artistic execution; secondly, help students to learn to observe traits of art they see, and talk about them; then, help them to understand the historical and cultural context where art is created; and the other refers to questions related to values provided by art. (Eisner, 2004:134).

That is, create, appreciate, contextualize and justify, four primordial functions in the various disciplines, and in any situation of life; therefore, fundamental in cognitive processes.

In order to understand the relationship among awareness, experience, knowledge and reflection, it is necessary to establish that, one thing is the context of imagination, and another thing is the context of the world we live in, and although by means of art connection may be established, it is fundamental to present the need of establishing the techniques to act in one and in another aspect, to do so, we should state that art and its materials allows connections to life, and cognitive techniques do so, from reflection of disciplines used in particular.

It should also be understood that the curriculum is not only a group of activities and programs derived from methodologies and policies which guide actions of education institutions, but "A conception that involves a variety of methods and manners used by human beings to represent contents of our awareness... the curriculum is a program designed to promote development of this wile conception of cognition," (Eisner, 2004:185), in addition, they are ways of thinking, and development of the mind is established.

What education may learn from arts: Standardization of curricular contents contrast to singularity which the process of learning should comply with, without being aware that each individual assumes what interests him in an educative process. This education trend results complex and problematic where standardized quality is expected, of a minimal level of assimilation of such contents, which finally results is, that students and teachers dedicate to meet the basic purpose of the course, and a normal performance of all members of the group, which finally produces uniformity, which is not what originally expected, which today is adversely affecting education purposes.

"A lesson from arts, is that there may be more than one answer to a question, and more than one solution for a problem" (Eisner, 2004:240), in this manner, it is possible to add education with particular priorities, and make an habit that each student defines his own particularities, while the teacher assimilates this education situation, which admits in practice importance of diversity, and decision making by each one, thus providing a personal seal to the educative process, and to the same interpretation.

But, perhaps, the greatest difficulty in the education process, and where arts are more accepted is the importance of imagination, since:

> Invention in every field depends on imagination, not to talk of enjoyment that imaginative process may produce. In education we tend to highlight the factual, exactitude, linearity, concretion. We tend to undervalue and minimize imaginative processes, so characteristic of cognitive life. (Eisner, 2004:242).

And in this same sense, Dewey states that "the seal of the aesthetic should be any intellectual idea for such idea to be complete. This sensation is at the same time imaginative and sensible, which would be promoted by so called academic studies which followed the model of arts" (Dewey cited by Eisner, 2004:242), who also claimed that "the aesthetic may not be clearly separated from intellectual experience, since the second one should contain an aesthetic seal to be complete," (Dewey, cited by Eisner, 2004:243).

It is worth to mention the importance of inviting students to use imagination, to place them in the scientific and artistic exercise, and may see things in a different manner from how they are, and lead them to "perceive what it is, but imagine what it could be, and then use their knowledge, their technical aptitudes, and their sensibility to deepen in what they have imagined.". (Eisner, 2004:243), it would be a good posture to refine sensibility in the context of so called academic courses.

Now, most motivations in the academic world are extrinsic, grades, scholarships, prizes, incentives, and recognitions, are finally of a great artificial value, but very little space for such intrinsic motivation, where students acquire value of internal events, deployment of personality, and improvement of intimate values, private, and sometimes secret, which do determine at a great extent life quality, and a thermometer of the individual will in the learning process.

Another important process deployed through arts in education corresponds to development and comprehension of confuse language; this complex is overcome by competences which improve understanding poetic language, non-literal or regularized. In this manner, the student may achieve complex recognition and dominion of contemporary languages, such as movies, the hypertext, drama, and acquisition of skills to develop non-verbal and expressive languages, which enable the student to achieve a wide range of competences in developing talent for resolution of problems or conflicts.

Finally, by means of arts that taste of life is found, that enjoyment of knowledge, feeling progress whenever any new skills is added to wisdom of individuals, tasting experience, pay attention to what is in front, recognize perception as a source of knowledge, and as a spring of experiences, to find the sense-flavor of life, and enjoyment of senses and feelings. Let's finish by citing Eisner's words: "what education may learn from arts is the meaning of treating fields and subject matters as potential ways of art. In this manner, arts turn into a model for education" (Eisner, 2004:241).

The didactic game

It is known that German teacher Friedrich Froebel (1782-1852), inspired in Pestalozzi's ideas, contributed to education creation of the *Kindergarten* as the year previous to formal school, "where students are encouraged to expand their cognitive ability within a surrounding characterized by game and affection, where boys and girls activity prevail as a source of learning" (Nussbaum, 2010:90). His medullar idea is activity and manipulation of objects, strengthening education, and using games in order

to end traditional methods of transference, where the student does not participate but becomes a receptor where the teacher pours his knowledge.

Creativity is the relationshiop of the inner world with reality: English Pediatrist and Psychoanalist Winnicott (1896-1971), Donald Woods in innumerable observations of boys and girls of every age, underlined the fundamental role of game for healthy development of personality, stating that "it is kind of activity performed within the space of two individuals, which he names "potential space". There, individuals (first in the infancy and then in adult age), experiments with the other's idea" (Nussbaum, 2010:135), as a valuable practice that produces empathy and reciprocity. Game produces magic fantasies which enable children to control what happens, and as they progress in age, they develop the ability of amazement and imagination, and in this manner vulnerability and surprise connect to curiosity, surprise, and imagination, instead of connecting to overwhelming anxiety.

Martha Nussbaum, influenced by Winnicott, claims:

According to this author, in human cultures, among primary functions of art there is the one of preserving and encouraging cultivation of the "space of game". Winnicott considers that, over all, the role of arts of human life is to feed and extend the ability of empathy. In the complexity of the answer before a sophisticated work it detects continuation of pleasure that the baby finds in games and in dramatizations. (Nussbaum, 2010:138).

Winnicott establishes one of the most concluding appreciations designed from psychoanalysis on the creative aspect, develops his theory of objects, and transition phenomena producing the idea that creativity is the participative contact of the inner subject with outer reality in a potential zone. Parting from these concepts, it surges the theory of creativity for search of the individual, separating from the idea of the creator as a genius, or the figure of the successful artist. On this matter he tells us that:

> Search of the individual, and restatement of the fact that some conditions are necessary to succeed in that search, are linked to

what in general is named creativity. In the game, and only in it, the adult and the child may create and use all of their personality, and the individual discovers his person only when he shows himself as a creator (Winncott, 2008:80).

In this manner creativity is considered closer to the world of life than achievement of high impact products, which is very advantageous for education, when decontextualization of curriculums based on the fact of learning contents is criticized. Comprehension of life in creation is giving meaning to existence of inner world, which in concordance with the outer one creates situations of reality, parting from game, arts, or scientific creation. But Winnicott's stake through this concept of creativity is still of more risk determining that:

> What makes any individual feel that it is worth to live life is, more than anything else, is creative perception. In front of this, there is a relationship with exterior reality, which is observance relationship; the world and its details are recognized, but just as something in which it is necessary to fix, of which requires adaptation. Observance requires a feeling of incapacity of the individual ... where most of the time, individuals live in a non-creative manner, as trapped in creativity of someone else, or a machine (Winnicott, 2008:93).

We then determine that contact with exterior reality defines at a great extent the use of creativity, determination of the objective remains to be discussed, but we could agree that the potential zone of experience is the field of performance of individuals where the link the subjective world with the one of shared life.

Artistic creativity

Cultivation of comprehension and the inner world. Rabindranath Tagore (18611941), a consummate artist in poetry, painting, dram, dance, and Literature Nobel Prize in 1913, organized his experimental school Shantiniketan, today, University of Visva Bharati, located in India, but with large derivations in European and North American education. There, he prepared and developed te importance of arts in education, by including dramatizations, intended to prevent logic argumentations from atrophying the student personality. For him,

> The primary function of arts is to cultivate comprehension. Tagore, warned that such function of education, (perhaps one of the most important), had been "systematically ignored" and "severely repressed" in the traditional models. On his judgment, the three ones encouraged cultivation of the same inner world, but also sensibility before the others, two traits that in general are developed in tandem, since it may hardly appreciate in the other what we have not explored in our own interior (Nussbaum, 2010:141).

The important thing of these dramaturgies is not only the expressive event as such, but that in reality "they constituted a way of cultivating comprehension and logic powers at the same time" (Nussbaum, 2010:142), which along school journeys served to investigate various intellectual postures. In this manner, Tagore moved ahead not only of his epoch but showed the way to education of other latitudes, specially America and Europe, through similarity of the various disciplines with different literary works, musical, fine arts and choreographic, achieving not only comprehension, but also attaining good marks in state standardized tests, by inspiring passion, creativity and pleasure, thanks to combination of arts in developing formal knowledge, and encouraged teachers to inspire their students; let's see his famous words: "A teacher can never truly teach unless he is still learning... [he later states]. The truth should not only inform but also inspire. If inspiration dies, and information accumulates, then the truth losses its similarity" (Arguello Scriba, 2004.10).

Thought and Creativity. North American Psychologist Howard Gardner (1943), member of Project Zero at Harvard University is the creator of theory of multiple intelligences, which has caused deep influence on Psychology, and on education during the second half of XX Century and the present Century; he states that for the study of creative thought, it is necessary to understand how the human being mind functions, and how relationships between thought and creativity are established. Gardner presents a transcendental approach at understanding

that this creative aspect comes from artistic activities. In his study *Art, Mind and Brain,* he examines in principle a statement based on cognitive psychology, according to which, the mind functions under specific rules, often unconscious, but then he approaches an effort to combine philosophy and psychology. He understands human thought as an interaction of various systems of open and creative symbols, which he uses in his mind and function "according to structuring principles, may create, correct, transform and recreate products, systems and, even universes of meaning fully new" (Gardner, 1993:133).

Gardner heads his study parting from the analysis made by Piaget, Chomsky and Levi-Strauss of human mind, stating about them that:

The share the conviction on the importance of postulating mental representations, the certainty that similarities among individuals are much deeper than their differences, and certainty that a great part if explanation of knowledge in the last instance comes from genetics and human biology (Gardner, 1993:59).

But it is clear that they object the concepts of "learning" and "environmental causes". Each from his rational, scientific and artistic posture, respectively, on separated basis, they develop their research on how human beings think, but leaving serious limitations on how we perform the creative activity. However, it may be highlighted that Piaget seeks the roots of inventive in elementary psychological and biological processes; Chomsky draw the attention on creativity contained in the common language, and Levi-Strauss challenges the concept of original invention. The latter "recognizes the importance of symbolic activity in human experience, and shows special interest in matters related to artistic invention [but ignores] "generative" or "creative" characteristics in the use of various systems of symbols". (Gardner, 1993:59).

An approach to creativity in Gardner. The first insinuation by Gardner, consists of separating the study of creativity from the study of intelligence, and objects the tests of intellectual coefficiency, claiming in this manner, the autonomy in the research on creativity. He reasonably adduces that intelligence is not the same as creativity, and that creative thought is divergent, that it leads to recognize resolution of problems from diverse perspectives seen from an endless amount of potential information, and this increases the types of analysis to reach one or several solutions.

On this matter, he insists on existence of particular studies accounting for a better understanding of creativity, parting from analysis of individual cases, he balances Howard Cruber's studies, who proposes careful studies of practical cases; regarding his method, Gardner state that:

> He characterizes for careful attention to the ways in which generative ideas, and series of ideas, are developed and explored along important periods of time ... Such individuals dedicate to a wide and large network of initiatives; they show understanding of the purpose or desire given by its whole framework, giving sense to daily and annual activities; they procure creation and use of images of a wide field of application; and show a close and constant affective link to elements, problems of phenomena being studied (Gardner, 1995:41).

In addition, qualitative studies are proposed which account for a historiometric approach, a methodology that may be applied to questions of cognition, personality, motivation and creative works, consisting in seeking basic problems of creativity, to then investigate quantitative data which may help to resolve such problems.

For Gardner (1995), the study of creativity involves an enormous number of factors, and their multiple interactions, that he resolved by outlining four components separated by a subtle line, parting from the analysis of cases of four highly creative individuals, they are: Organizing topics, organizing structure, questions for empirical research, and emerging topics. Organizing topics part from the relationship between the child and the creator adult, adducing that, "important dimensions of adult creativity have their root in the creator's infancy" (pag. 26); the second organizing topic investigates "the relationship between the creator and other individuals. These include those closer to the creator" (pag. 26), and, the third organizing topic centers on "the relationship between the creator and his work within a field... an area or object of interest which results exciting" (pag. 26).

The organizing structure shows the following characteristics; an evolving perspective, where Gardner claims that

The creator is an individual who knows how to face any absolutely formidable challenge: Linking the most advanced skills achieved in a field to the kind of problems, questions, issues and feelings which fundamentally characterize his childhood full of amazement. In this sense, the creator adult repeatedly uses the infancy capital. (Gardner, 1995:90).

Another is the interactive perspective among individuals, fields and scopes. From the conception of creative individual, which implies permanent resolution of problems "an individual should be creative in one field, not in all fields" (pag. 53), he also questions that creativity is applied in a starting once in life, and insists that:

> Creativity, preparation of products, or stating new questions, are only known as such when accepted in a concrete culture", which proves that "nothing is, or it is not, creative in, or by itself. Creativity is intrinsically a community valuation, or cultural. (Gardner, 1995, pag. 53).

Gardner, in this same study of *The creative minds* (1995), states that questions for empirical research are differentiated in three issues that should be examined at three levels: Individual, field, and scope.

At individual level, the cognitive aspect is proposed first, where "the nature of intellectual strengths and weaknesses in the early age" appear (pag. 54), then, an aspect of personality and motivation where emphasis should be made on "the importance of relationship with other individuals, scope of selfpromotion, and the type of infantile characteristics which seem to be kept ... the individual way of expressing emotions, and the degree of stress they had to face along their life" (pag.54); then, sociopsychological aspects where it is necessary to examine "the nature of relationship between the child and his parents... relationship of each individual with the society and with other individuals of the selected field" (pag. 57), and finally, vital standards of ups and downs in creative productivity, "what being creative means in various fields and in various moments of the vital cycle" (pag. 57).

At the level of the field "the nature of symbolic systems... types of creative practices... and the main statements as they exist at the fields where creators are working" are considered, (pag. 57). Finally, at the level of the ambit, the approach is toward "relationships of creators with mentors, rivals and followers within the ambit... extension and nature of public controversy in the ambit... and the extent at which the hierarchic organization controls the ambit" (pag. 57).

Finally, the resulting topics are empirical questions that spontaneously spring in creative processes, and which may be mentioned as support at the time of advancement, and the Faustian pact of the creator. It is fundamental to understand the key moments in the creative process of the great ideas where "some creators had intimate confidents during this period of time" who provided them with affective or cognitive support; the Faustian pact refers to:

> In any way, each creator introduced himself in any type of pact, treaty or Faustian agreement, realized as a way of ensuring preservation of his unusual talent [for example], undertake an ascetic existence... an insulation... a terrible exploitation of others... or, a constant combative relationship with others (Gardner, 1995:61).

These phenomena are of a fundamental importance, since, they form a thought of unusual agreements with the other reality by pacts scrupulously observed, otherwise, talent may be excluded with negative consequences for creative production of the individual.

Educative situation of the creative individual. Within this framework it should be initially considered that the "creative individual is a person who regularly resolves problems, prepares products, or defines new questions in any field in such a way that at first is considered as new, but at the end is accepted in a full cultural context" (Gardner, 1995:53). In this sense, it is necessary to highlight that the creative aptitudes of the student decline as he progresses in school stages, and are restricted as he is subject to influence and acceptation by peers; this topic is of particular interest because

It affects activities of children. As in games children express their determination of strictly obeying rules, and not tolerate any deviation... it is natural that children limit their graphic realizations to true copy of the surrounding shapes, [and at not achieving it], some cease to draw... This sharpening of taste, and comprehension, however, has a low impact on the ambit of creativity. Just a small minority of those who freely created when children, manage to retake their activities. (Gardner, 1993:138).

Then, it is beneficent to expect that those feeling expressively frustrated because of not achieving the realism proposed during the literal stage of the adolescent, may recover for themselves such lost artistic talent. And on this matter, it is important for the teacher, together with the students understand that:

> The creative individual encloses a number of subsystems and interaction; one of these subsystems involves organization of knowledge. The creative individual tries to relate various facets and theories which are disperse in his area of interest, in order to find a coherent and complete synthesis... these activities use to be based each other, and result in a creative life unbelievably dynamic ... such individual also pursues a series of dominant metaphors, these figures are images of a wide scope, rich and susceptible of being deeply explored, which show the researcher some aspects of certain phenomena, that otherwise, perhaps, would become invisible for him, (Gardner, 1993.203).

And in this manner, in order to achieve progress, it is indispensable that teaching exercise has fundamental characteristics of the creative individual.

Utopic education

Autonomous personality for freedom: Johan Heinrich Pestalozzi (1746-1827), intended to end educative processes were memorization is the didactic fundamental, and concentrate the process on emotional development. Education linked to arts, and for creation of a new world started with him. In 1772, he wrote her work *Investigations*, which deals with drawing the attention from the educator posture, with his method founded on the triad: head, heart and hand, with a vision of construction of autonomous freedom. In 1805 at Yverdon castle (Switzerland), is where such method is placed in practice, which is quickly expanded throughout Europe, and was practiced by a great number of famous teachers of XIX and XX Centuries; its spiritual basis was highlighted, as his words, mentioned by UNESCO, say, "Examined everything, retain what is well, and if in yourself something better has appeared early, add it with truth and love to what I try to give you with love in these pages", (Soetard, 1994:7)

The art builds freedom and independent individuals: The child, Viktor Lowenfeld (1930-1960) states, who performs his creative activity through arts will gain freedom and flexibility: "if the child performs creative activities and practices his own freedom and initiative, he will grow within a spirit that will lead him to recognize and appreciate individual differences." (Lowenfeld, 1973:193), and British Herbert Read (1893-1968), states that art, more than being taught or learned, is caught; he opines that artistic impulse residing in the unconscious, and according to this thought "made children to paint and engrave in order to promote creative expression of their personal experience, including their fantasy life" (Eisner, 2004:59). It even reaches a more daring and radical idea: "Only a society sensitized by arts may become accessible to ideas" (Read, 1967:7).

Determining in this manner, that art plays a great role in quality life of individuals, which at a great extent is due to artistic activities they may perform during their infancy; their sensibility and perception, from all senses, are empowered by art, and contribute to life quality that the individual builds. Let's mention his words:

> In each phase of this [his life], he will proceed in one of two ways: or will use his inventive, the creator approach, or will depend on imitation of established standards. We should not forget that, what makes a doctor, a physicist, a trader, an architect or a carpenter to succeed, is his invention power, which power makes them find in their

profession an endless source of discoveries and changes. Whatever is the profession he selects, he will always need of a creative attitude that he will have developed through his artistic activities (Lowenfeld, 1973:193).

The art is a method to build life. Lev Semionovich Vygotsky (1896-1934), a great Soviet scientific, who makes a great emphasis on the value of arts toward conformation of a new world, and enters to explain art relationship to life and its educative value, and considers art since the most remote antiquity as a means of education given his determined interest in modifying our behavior and our organism. Through art it is possible to organize conscious processes, rational knowledge, comprehension, recognition and association, which aspects consciously establish before the march to encounter art, where personality is improved, new possibilities are enriched, and improves reaction before phenomena; this is its fundamental educative value.

Art may even represent an instrument of dominion of the reality, at exposing the formula of the "art as a method of life building", because art builds it, and it is forged from revelation and demolition of contradictions, because it results essentially exciting, given its dialectic attitude toward construction of the new life. This link between art and life is proposed parting from understanding Vigotsky's idea, who stated that:

> The art surges from reality, and is guided toward it by fantasy, determining the fundamental structure of feeling and emotion, "it represents the center of all biological and social processes of the individual in society, it is a means of establishing balance between man and the world at the most critical times, and responsible of life. (Vigotsky, 2005:269).

Conclusions

The mind is built on experience, education through arts, and game enriches it, this situation that leads to contextualize, by means of talent, emotional development with knowledge; this educative posture facilitates creativity to express in the sense of possession of the individuals with the world they inhabit. Imagination creates all cultural events which come true through fantasy in human mind, education allowed by art through its activities contributes the students comprehension of the context, and acting on responsible basis.

Actions of individuals on the world of life offer two options o adaptation or creation, game and art provide possibilities that strengthen creative spirit, and, and when they are absent from classrooms, the most probable thing is that students end adapting themselves to ideas of others. This situation of adaptability has determined that our societies are not concerned in creating, but otherwise they become expert on copying.

For university education to produce creative students, who positively impact the context, it becomes urgent for teachers to be creative and perform an active task, in this manner societies become enriched sceneries through creative job of its members. Creative education provides the students the option of creating a timely, contextualized, agile, critic, active and active thought, builder of new realities, mental representations, and new worlds.

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