Application of Contemporary Theories of Learning in Educational Process

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Abstract---In educational settings in recent years, new educational concepts and approaches, pedagogical models, active methodologies and emerging educational trends have been discussed. Many of the promoters of these new paradigms propose to teachers at all levels to forget how they have learned and taught by adopting new educational tactics, to avoid falling into traditionalism due to the lack of use of techniques and strategies in current teaching, which allow a interactive, exciting and meaningful learning. The objective of this research is to analyze the application of contemporary theories such as: multiple intelligences, emotional intelligence, neurosciences, connectivism, constructivism, conceptual pedagogy, humanism and its incidence in the educational process; aimed at developing a comprehensive education for students that allows them to face the different challenges of the current knowledge society. The results obtained were achieved from a bibliographic review from an exploratory perspective, allowing to process key information from the study, the analysis-synthesis, inductive-deductive methods were considered, with information on the subject studied, obtaining as a result that these modern theories contribute to the improvement of the educational task, allowing the teacher to reorganize their curricular praxis, to provide a holistic education focused on the student, developing their capacities for the acquisition of new learning that will help them face the challenges of the globalized world.

Keywords---contemporary theories, educational process, knowledge society, holistic education, new learning.

I. Introduction

Educational innovation is a planned act of solving problems, which aims to achieve greater quality in learning, overcoming the traditional paradigm. It involves transcending academic knowledge and moving from the passive apprehension of the student to a conception where training is built among all (UNESCO, 2014).

Based on this premise (Suppes, 1974), he states that for current education the models and paradigms that support a theory must be known Learning Conceptualized as a scientifically acceptable set of principles that explain a phenomenon. These theories serve as bridges between research and education.

For his part (Driscoll, 2000), he defines the educational process as a system of persistent change in human performance, within which new learning must occur as a result of the student's experience and interaction with the world. Students of this time learn differently. It is therefore essential that teachers and educational institutions transform towards this new and powerful pedagogical direction, applying the knowledge provided by the new philosophical currents that, according to the research literature, have contributed greatly to the improvement of education.

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The research is based on inquiries made based on the theme raised, in a study on the successful Finnish educational model, the excellent results obtained by students when participating in the study are shown. International Program for the Evaluation of Students (PISA) of the year 2006 and the report of 2018, where the data show that the Finnish students evaluated in reading skills, reach the second place, in mathematical skills they are in seventh place and in the domain Scientist Finland was ranked third worldwide.

Based on these data, teachers clarify why this system has positive results. The efficiency of this educational regime is due to the fact that the student is at the center of the procedure, making an in-depth analysis of their needs, the learning rhythms are adapted to the student, teachers are an important part of this model, so their training in innovative strategies, it is a constant and permanent fact, the student has time for everything, giving them space for play and rest, skills and numbers are avoided, curiosity is rewarded, participation and parents are involved in education of their children (Grinperberg & Lizarte, 2012).

In another research carried out in Mexico, 54 teachers on the theories implicit in the educational work of primary school teachers and their teaching practices, it was found that the teaching practice of 68% is based on a constructive approach and 32% work from From an interpretive model, in this way it is shown that teachers do not submit to a single theory to govern their educational work, but that the conceptions they have built on learning and all its implications are a mixture of constructive and interpretive trends (Gutiérrez, Frine, & Hernández Rojas, 2016).

Based on this research, it was shown that teachers with constructivist approaches focus the teaching-learning process on the student, in the same way they are constantly trained on new pedagogical models of education, perfecting their teaching strategies used in the classroom, and improving the educational process.

In the same line of research, a study was shown that was experimented in the city of Mar del Plata, Argentina (Malacaria, 2010), in 2010, where a percentage of 35.61% of the 276 students surveyed showed that they participated in an active learning style, and 11.15% stated that they are immersed in a theoretical system. Similarly, when surveying 9 teachers, it was shown that 5 of them have a reflective teaching method and none, a theoretical teaching modality.

The recommendation that the researcher presents is that the educational process should be enriched by putting it into practice with activities allowing the student to become self-aware. Provide tasks that facilitate the development of their styles, that can recognize the situations in which the acquisition of new knowledge is facilitated and the conditions in which it is more difficult to achieve an active, reflective education and generate situations that allow them facilitate self-knowledge for students, the teacher must know about educational theories, because these give guidelines for developing their actions in teaching, taking into account the needs of students the way, pace, styles in which each learns and develops their abilities, skills and competencies.

In Ecuador, there are still deficiencies in the educational process, in terms of knowledge and application of new learning theories, despite the fact that institutions such as the National Institute for Educational Evaluation (INEVAL), try to reflect an improvement in the results of the Standardized tests with which Ecuadorian students are evaluated (INEVAL, 2016). This data is corroborated with the results of the tests PISA 2017, which show that in Ecuador 29% of 15-year-olds did not reach the minimum level of competence in mathematics, 43% in science and 49% in reading, here as mentioned a PISA representative the students are good at memorizing. This exercise is good practice for learning simple tasks, but as the task becomes more complex and requires problem-solving strategies, this cognitive process hurts rather than helps (Torres, 2019).

Educators in Ecuador have always struggled to improve quality standards in educational processes, but they have not fully achieved it, despite the fact that they have worked to train teachers in continuous training through platforms such as Mecapacito; However, it is necessary to apply workshops or teaching alignment processes that demonstrate the practice of contemporary learning theories that direct and perfect their pedagogical work. The teachers of the 21st century are called to constantly improve their praxis, and thus provide a solvent education with high models of competence reflected in the skills that students have to efficiently solve the problems of daily life at the end of each level, study according to the exit profile proposed in the current curriculum.

This study arises from the need to investigate the lack of application of contemporary theories in the educational process, which hinders quality learning, falling into monotony and causing students to lose interest in discovering and developing new skills, from analysis and reflection of the information collected, the aim is to make teachers aware of the new approaches available to them and their impact on the results.

This research is of interest, because it aims to analyze the application of contemporary theories such as: multiple intelligences, emotional intelligence, neurosciences, connectivism, constructivism, conceptual pedagogy, humanism and its incidence in the educational process, allowing students to develop within a system that it has as its sole purpose a comprehensive and humanistic training, since one of the challenges of current education is to respond from an innovative approach separating the gap of the traditional school rooted in teaching and that have negative influences, not in accordance with current society of knowledge.

In this new era, the most appreciated value is not information but knowledge, from which the ability to resolve contradictions in a collaborative, systematic and ethical manner is obtained, seeking the personal fulfillment of individuals to the extent that they favor the sustainability of humanity and the environment (García & Godínez, 2015). Training within a society that involves changing traditional education and educating people with critical and reflective thinking.

The Knowledge Society demands new requirements for nations, organizations and people, each time the intellectual training necessary to operate effectively and efficiently in the digital age that interacts continuously increases, that is why the importance of preparing teachers capable of performing in this era and generating new learning that is innovative for the student (Pedraja, 2017).

II. Materials and Methods

This article is based on the literary review, through exploratory research that provides guidelines to deepen this topic that has been little addressed previously, a bibliographic study was carried out that allowed synthesizing information from books, reports, indexed magazines and digital scientific articles; This publication is nourished by the sources of consultation through deductive inductive reasoning, which supported the investigative process as a contribution to the dissemination of knowledge (Hernández, Fernández, & Batista, 2010). The information that was compiled was subjected to the reflective attitude and paraphrasing of the authors through the method of analysis and synthesis.

III. **Analysis and Discussion of the Results**

The theories of learning constitute the frame of reference for directing education and serve as a support between new research and the educational task, they are short-term experimentations as a test to determine if they gave results and influence the school system from a critical analysis. From this perspective, current education must rethink from all contexts what professional to train for the future society that innovates day by day at speed and equate the virtual and globalized level (Popper, 2002).

This study analyzes several of the contemporary theories applicable to education in this century, which are based on improving the educational process, allowing the improvement of teaching practice and the construction of significant learning in students. In Figure 1, an illustrative outline of the main philosophical conceptions that will be addressed in this research and the characteristics that place them in the ranking of modern education generating learning focused on human quality and diversity of thought, adapted to contexts, is presented. of each locality.

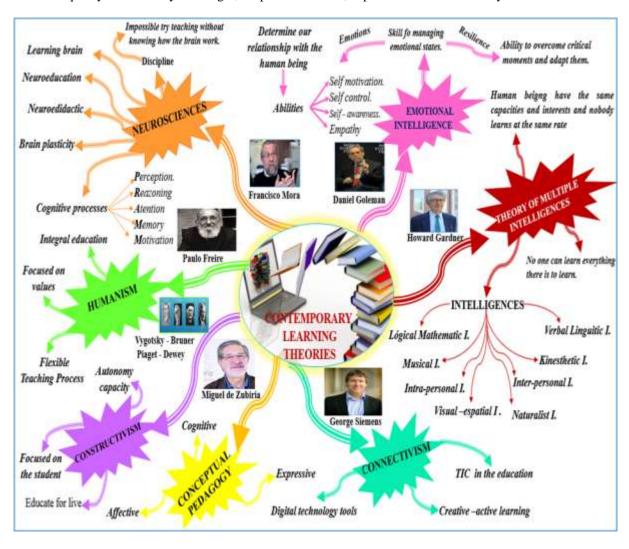


Figure 1. Mind map on Contemporary Theories of Learning

Figure 1 shows an extract corresponding to the new theories that have caused a revolution in education in the 21st century, generating knowledge, values and ways of how knowledge is acquired, which have their epistemological foundation in the main theoretical bases of learning, traditional, among them the proposal by the psychologist Jean Piaget and his Cognitive Theory, Lev Vygotsky, Sociocultural Theory, Albert Bandura and the Conception of Social

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Learning, Skinner and his Behavioral Theory, Jerome Brunner, approach to Discovery Learning and David Ausubel, Theory of Meaningful Learning.

The new educational trends presuppose the generation of a systematic vision in today's culture, which allows society to make decisions about how to conduct the educational process of this era, creating an explanatory model of how human beings learn in these times, based in what (Delors, 1996), presented to UNESCO as the four pillars for education in the 21st century, shown in figure 2.

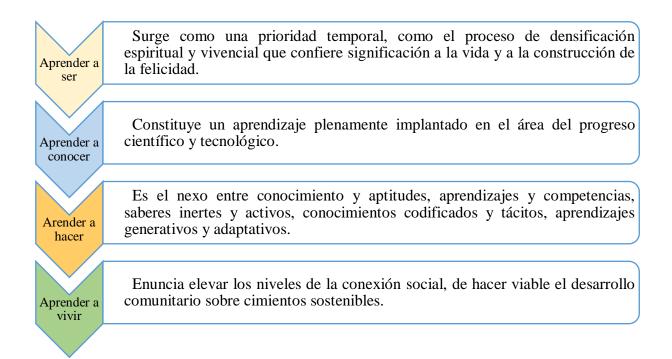


Figure 2. The four pillars of education in the 21st century

As can be seen, reference is made to the pillars of current education, which form a combination of the capacities that must be formed in the human being, making it clear that teaching should not only focus on the acquisition of knowledge, but also involves the construction of emotions and new learning, allowing the productive performance of the individual, to contribute to the sustainable development of society and the environment.

Neuroscience as a Pedagogical Discipline

Neuroscience contributes with essential illustrations about the neural bases of learning (attention, memory, reasoning or language) and other brain functions, such as emotions or behavior, which are, day after day, stimulated, evaluated and strengthened and, in turn, necessary in the classroom (Campos, 2010).

Any educational representative who possesses knowledge and understands how the brain learns, processes information, manages emotions, feelings, and behavior changes, becomes an essential individual in creating new ways of teaching and improving educational processes. Neuroeducation presupposes a new view of the school system from the knowledge of applied neuroscience, this interdiscipline generates a greater degree of union between the science of education with the sciences that are responsible for the neurocognitive evolution of the person (Battro, 2016).

Neuroeducation cooperates with the regularization of emotions to avoid disinterested and unmotivated individuals; supports optimizing learning with instruments that provide content in the best possible way so that they get the attention of the brain according to their age. Using these disciplines appropriately will help to promote and perfect skills and abilities, discovering learning problems in infants in the classroom, which limit their ability to learn (Palomar, 2017).

Another discipline that emerges from the study of the learning brain is neurodidactics, which is a part of pedagogy based on neuroscience, which presents a modern disposition to education, with the intention of developing educational and methodological, effective and efficient tactics that they provoke greater brain progress or greater learning in the terms that teachers can interpret (Paniagua & M, 2013).

Neurodidactics, allows the application of knowledge about how the brain works and how neurobiological processes act in learning, to help make it more meaningful and optimal, this discipline is the correlation between neurology and learning methodologies together. It is placing neuroscience at the service of the everyday (Forés & Ligioiz, 2009).

When analyzing brief concepts such as: neuroscience, neuroeducation, and neurodidactics, it is necessary to reflect on neurolearning, which is a discipline that articulates psychology, pedagogy, and neuroscience to expose how the brain works in learning processes. Currently, there is necessary information that allows knowing how to assimilate knowledge and there are strategies to reveal how each brain learns individually (Loja, 2015).

Cognitive processes play a primary role in everyday life and therefore for learning. The human being, all the time, is discovering, realizing, analyzing and making use of memory and language. Together, these cognitive processes make up the basis from which the universe is understood, they also underlie the most sophisticated cognitive functioning such as reading, social understanding or beliefs (Fuenmayor & Villasmil, 2008).

To finish, the study of neurosciences infers on the exercise of the brain to transform education, presenting itself as a new knowledge, capable of making contributions in the humanistic and social sciences, today it is not enough to ferment emotions in the classroom but rather to teach with emotion (Mora, 2014).

Emotional intelligence

Educating in emotions arises as the need to respond to current socio-educational problems such as: anxiety, depression, indiscipline, bullying, school violence, drug addiction, eating disorders (Álvarez, 2001). One of the main spaces for the development of emotional education is the school, and it is that the school stage is considered fundamental in the life of the human being (Perea, 2002).

The contribution of the Theory of Emotional Intelligence (TIE), infers on the individual's ability to identify their own emotional state and manage it appropriately. This ability has a positive impact on the people who possess it, allowing them to understand and control their impulses, facilitating communicative relationships with others (Goleman, 1996), their study gathers a set of relevant characteristics to satisfactorily solve problems such as: the ability to self-motivate and resist disappointments; regulate humor, evade crises that reduce cognitive abilities and generate expectation.

In this sense, the role of the teacher plays a preponderant role, because it will help its students to maintain their state of fluency, leaving aside demotivation and stress, emphasizing resilience, which focuses mainly on the strengths and positive aspects present in humans. It is about overcoming difficulties through a perspective that promotes and

values one's potentials, abilities, talents and resources. Thus, resilience contributes to quality of life, in addition to being a buffer and facilitator to successfully cope with stress (Seligman & Csikszentmihalyi, 2000).

The teacher is able to induce the students' brains to become infected with their attitude and emotional state, it is substantial that each teacher makes his classes relaxed and that the apprehension of new learning is enjoyed by the students. As indicated (Olsson, Bond, & Burns, 2003). Resilience has been used to describe a substance with elastic qualities, the capacity for successful adaptation in a changing environment, the character of hardness and invulnerability. Recently, a dynamic process has been carried out that involves an interaction between the risk and protection processes, inside and outside the individual, that act to modify the effects of an adverse life event.

Based on the above (Scaddan, 2014), it assumes that for the brain to learn it must be free of high levels of stress. (Goleman, 2009) ensures that the intellect cannot operate optimally without emotional intelligence. The author's study maintains that very often the difference lies in that set of skills that he has called emotional intelligence, among which the following stand out:

Self-control, the ability to contain, dominate emotional emotions and calm oneself are skills that are learned and develop; **enthusiasm**, is the taste for what is done, are stimuli for success; **empathy**, denotes the ability to perceive the intrinsic experience of another person, to understand what others feel; **perseverance**, ability to persist and not giveuntil the objectives are put into effect, this competition mainly depends on emotional factors such as enthusiasm; Self-**motivation** is feeling fit enough to find a way to achieve your goals.

To conclude, part of these competencies may come configured in the genetic baggage of every human being, and others are molded during the first years of life, the evidence backed by abundant research shows that emotional skills are capable of being learned and polished throughout of life, of course if the proper methodologies are used.

Theory of multiple intelligences

The theory of multiple intelligences (TIM) is considered necessary to promote the learning of children and young people; subtract behavioral difficulties; increases self-esteem; displays the skills of collaboration, leadership, spreads interest and dedication at the time of learning (Sánchez, 2015). Education is based on a humanistic pedagogy, which is epistemologically based on giving way to this theory, where intelligence is defined as a capacity that is not innate and that allows solving problems or creating products that are valuable in one or more environments. cultural (Gardner, 1994).

Changing the stereotype of the TIM as such, that is, the notion is broken that the student who is intelligent, is the one who has brilliant qualifications and those who do not excel in handling traditional academic intelligences, have no recognition, dissolving their participation and contribution to the cultural and social space; they even consider themselves unsuccessful, when in reality their capacities are being limited. It is assumed that study subjects can be taught in different ways, allowing the student to internalize them based on their abilities and taking advantage of their strengths (Gardner, 1999).

The author proposes an education that focuses on the individual, committed to the optimal understanding and refinement of the cognitive profile of each student. Two assumptions are specified: first, each individual has the same capacities and interests and not everyone learns at the same rate, and no one can learn everything there is to learn.

The coexistence of eight intelligences, defined in this way: **proposedlinguistics**, is, as the ability to understand and be able to communicate with others, is transversal to all cultures; **logical math**, logical reasoning ability, and mathematical problem solving; **spatial**, faculty to see the world and objects from different perspectives; **Musical**, skill

of some areas of the brain related to the interpretation and composition of music; **corporal and kinesthetic**, ability to express certain emotions from movements; **intrapersonal**; talent that allows to perceive, to dominate the internal environment of oneself; **Interpersonal**, strength to notice things about other people beyond what the senses can capture and **naturalistic**, is to discover and experience studies related to nature (Gardner, 2005).

Based on this background, all people are possessors of each of the capacities, although each one stands out more in some than in others, not being some of the eight more significant than the others. In general, it is necessary to master a large part of them to face daily life, multiple intelligences are a theory of cognitive functioning. All individuals possess the ability to develop them if they receive the appropriate stimulation and education (Coll, 2002). Education is the best means to enhance intelligence through technology, science, valuation of culture, awareness of personal abilities and the development of creativity (Castro, Fonseca, Reyes, & Díaz, 2014).

These intelligences are different and independent, but at the same time they can interact and develop mutually (Lucas, 2003). In the educational field, the application of TIMs make up a pedagogical, motivating, integrating and creative proposal for students to build their leading role in acquiring holistic knowledge with a focus on context, which goes beyond everyday knowledge, bringing them closer to discernment creative which will help the activation of other intelligences, being able to boost the cognitive capacity to solve problems, make appropriate decisions, improve behavior, increase empathy, affection, motivation, develop skills, have a greater interrelation with the people around him and with himself.

The best tool that the teacher has is observation, which allows him to identify the most developed intelligences in his students and stimulate the improvement of those that are still to be developed, working with multiple intelligences allows to prosecute on the zone of proximal development of each student, so that the most competent peers collaborate with the other students, forming in them the cognitive conflict necessary to achieve meaningful learning.

Connectivism as a learning theory

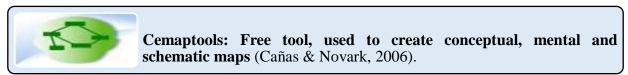
The New Information and Communication Technologies (ICTs), in education ask the educational system for a transformation in their curricular organizations and teaching materials, these have begun to form profound changes in the way information is analyzed. Technological innovations have altered the ways of doing business, the nature of services and products, the meaning of time at work and learning mechanisms (Fendiwick, 2001).

The beginning of connectivism as an educational theory arises from the need to investigate the way in which the human mind assimilates knowledge as a network that adapts to the environment in the age of technology. (Siemens, 2004), sustains that this theory surpasses the three great pedagogical approaches: behaviorism, cognitivism and constructivism. The role of the student would be dynamic and creative, since it has the urgency of permanently updating itself to its versatile environment by generating new links, recognition of schemes and learning new experiences in decision-making.

In this theory, the educator's purpose is to create an active environment and a context that gathers the students and that helps them build their own cone; but also a way to understand the mentality made up of a network of people, a collectivity or a society based on the same scoop, the creation of ecologies of networks in permanent transformation and progress (Aguilar & Mosquera, 2015).

Connectivism is shown as a pedagogical promise that provides those who learn, the ability to link to each other through the use of social networks, or collaborative resources, in this context the teacher's job is to generate learning connections, shape communities and releasing those who have learned into the environment (Giesbrecht, 2007).

Currently, technological tools are providing support to teachers in different academic disciplines. La web 2.0 es una plataforma novedosa que integra herramientas que han surgido de forma individual, pero que al ser asociadas pueden generar conocimiento en todos los ámbitos de la educación generando integración, innovación y creatividad (Gisbert, Espuny, & Gonzáles, 2011), en la figura 3, se muestran algunas herramientas de la web 2.0.





Kahoot: Learning platform focused on playful interaction and creativity with the purpose of diagnosing prior knowledge, knowing the relevant aspects, evaluating the degree of knowledge apprehension (Pintor, 2015).



Prezi: Electronic presentation, which allows showing themes, ideas, projects through the use of slides, is an excellent resource in educational settings. (Alfie & Veloso, 2011).



Genially: Its function is the creation of interactive online content, to improve teaching work through presentation, teaching and dissemination. (Catalan, 2015).



Powtoon: It is a web application to create animated presentations with which you can attract attention. You can add music and sound, incorporate our own recordings or voice and insert texts and images. (Japasé 2017)

Figure 3. Concept map of some web 2.0 tools

Some web 2.0 tools that can be used in the classroom are presented to create an interactive environment in new learning, these are: Cmaptools, Kahoot, Prezi, Genially and Powtoon.

Conceptual Pedagogy

Human learning rather than an educational process is a training system that aims to train full individuals affectively, cognitively and expressively, from this approach it is manifested that learning is consigned to the memorization of certain knowledge and differentiates that the acquisition of habits and processes that lead to education (De Zubiría, 1998). The Conceptual Pedagogy theory, tries to direct the student beyond scientific knowledge, proposes that the apprentice display the permanence of emotions related to emotional intelligence, that is; to face the modern social situation, in this way the student will be able to develop their skills in the cognitive and affective processes.

The purpose of this theory is to achieve the correlation between cognitive skills, knowledge and values in students, differentiating them according to the prototype of thought that each of them possesses and the mental age they have. Giving time to internalize, in addition, scientific, mathematical, logical and recreational information, relating it to their environment. Thus, conceptual pedagogy has three phases: affective, cognitive, and expressive. If the student manages to develop the stages together, they will be formed as an ethical, intelligent, emotionally strong, expressive, and competent individual to examine and convert information into symbols and vice versa (De Zubiría, 2008).

Now, each of the phases will be briefly analyzed, trying to explain its importance to be developed in students from the application of Conceptual Pedagogy in classrooms, the affective phase refers to the benefit of stimulating in

the student research, curiosity and interest in the different jobs he performs hoping that he learns with the ultimate aim of reflecting on the information obtained and the process he went through to internalize it in his cognitive system.

The cognitive phase focuses on ensuring access to information, understanding it, bringing it closer to reality in order to organize it, guaranteeing understanding, giving the student time to learn it. Its main point is that the student effectively understands the content that is being exposed and contextualizes it.

Finally, the third phase, the expressive one, is based on the efficient handling of the assimilated by executing a process of self-awareness, continuing the sequence proposed by the model: procedure, operational awareness, simulation and exercise of the acquired information (De Zubiría, 2010).

Constructivism

Constructivist theory is based on the studies of Piaget, Brunner, Vygotsky and Dewey, the main idea of constructivism is that the human being actively learns through physical perception and social and cultural experiences (Jonassen, 1991). Based on this contribution, each individual is responsible for their own learning and the role of the educator is to mediate the construct of learning based on their needs and interests, in this way knowledge is actively built through contextualizing with their environment, relate to others, and from the significance of their relationships by acting assertively (Langer, 2016).

In this regard (Tam, 2000), he affirms that constructivist teachers are characterized by sharing knowledge, authority and responsibility with their students, they are more guides than experts and their action depends on the level of experiences and knowledge of the students. According to what the author has stated, the teacher's actions are to be a facilitator, helping students to be more active by giving them prominence that allows them to generate links between what they already know with what is new and what they are in the process of learning.

Constructivism is a dynamic and participatory process through which external information is deciphered and reinterpreted by the mind, which generates the student to draw their own conclusions through experimentation (Pozo, 2005).

En este sentido, la mejora del proceso educativo deberá llevar a que cada individuo pueda aprender a educarse, adquiriendo destrezas de autoaprendizaje para toda la vida, con las competencias básicas para valorar la información que requiere, y estar apto para asumir los retos que emergen en la Sociedad del Conocimiento (Ferreyra, 2014).

Humanism

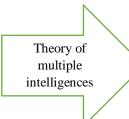
The objective of humanistic theory is focused on the personal growth of the student; as a fundamental basis for educational action that enhances creativity; the strengthening of interpersonal relationships through dialogue, teamwork and in stimulating significant learning through cognitive links and experiences (Bárcena & Melich, 2000). The human being must be studied as a whole, through a holistic and comprehensive education, however, with its own personality, immersed in a social context. Education is interrelation, it is human communication, it is dialogue. In this meeting place, there are no ignoramuses, no absolute sages: there are men who, in communication, seek to know more (Freire, 1999).

Holistic education is an act of love, with a humanistic purpose, which should help students decide who they are and what they want to become (Hernández, 1998). Therefore, living in human coexistence implies enunciating to the world that all action needs dialogue to live fully, so there can be no education without loving, this must be practiced with the students themselves, because the affective is not excluded of the cognitive (Freire, 2004). Figure 4 shows

holistic knowledge

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contributions by different authors with their criteria on contemporary theories of learning, making reference to the comparison of several authors with contemporary theories.



Howard Gardner (1994), defines intelligence as the ability to solve problems or to produce products that are important in a cultural context or in a community. César Coll (2011), considers that all people have the ability to develop the eight intelligences if they receive the stimulus and the appropriate instruction. Silvia De Luca (2004), contributes that multiple intelligences constitute a pedagogical, motivating, integrating and creative proposal for students to build

Neuroscience

Francisco Mora y Ana Sanguinetti (1994), las neurociencias tienen objetivos orientados a la búsqueda de respuestas sobre la estructura y el funcionamiento del cerebro con el objetivo último de comprender en profundidad los procesos cognitivos y el comportamiento del ser humano.

Martha Álvarez (2013), considera que las neurociencias permiten el conocimiento de los cambios neurobiológicos que ocurren en el cerebro al realizar procesos de aprendizaje y estos a su vez pueden fortalecer los procesos didácticos.

Anna Campos (2010), asegura que las neurociencias aportan conocimientos fundamentales en las bases neurales del aprendizaje tales como atención, memoria, razonamiento o lenguaje y de otras funciones cerebrales como las emociones, necesarias en el aula.

Connectivism

George Siemens (2004), maintains that in this theory the role of the apprentice is active and creative, since he needs to continually update himself in a changing environment.

José Aguilar and Diego Mosquera (2015) consider connectivism as an approach to understand the collective mentality of a network of people, a community or a society based on the same principle.

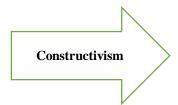
Natalie Giesbretch (2007), states that connectivism is presented as a pedagogical proposal that provides those who learn the ability to connect with each other through social networks, or collaborative tools.



Daniel Goleman (1996), maintains that this intelligence gathers a set of relevant characteristics to satisfactorily solve problems, express empathy, and generate hope. In addition, it allows to avoid crises that reduce cognitive abilities.

Elia López (2011), indicates that emotional intelligence forces the teacher to acquire new roles. It is no longer enough to be a transmitter of knowledge, but it will have to help the student discover their emotions and manage them in a positive way, cognitive abilities.

John Mayer and Peter Salovey (1997) consider that emotional intelligence is the ability to understand emotion and emotional knowledge, and the ability to regulate emotions that promote emotional and intellectual growth.



Jean Piaget (1980), assures that the previous experiences of the person constitute the base of new mental constructions in a direct relationship with the object of knowledge.

Mario Carretero (1993), considers that the individual, both in the cognitive and social aspects of behavior and affective, is not a mere product of the environment, but a self-construction that is produced day by day as a result of the interaction of various two factors.

David Jonassen (2000), constructivism forms in students a productive mental activity, which contributes to the development and individual and social elaboration of knowledge, based on the interpretations of their experiences in the world.



Miguel and Julián De Zubiría (2007), state that human learning is more than a process of education, but rather a training process that has as its purpose individuals who are affectively, cognitively and expressively.

Mirza Majmutov (1983), focuses learning on stimulating the relationships between different meanings to provide an answer to the environment, so that as the number of meanings increases, the network of articulations between the knowledge of the individual and the means, medium.

José Brito (1999), assumes Conceptual Pedagogy as the conception of the human being that is expressed in his Postulate of the Human Triangle, according to which the human being is made up of three systems: affective system, cognitive system and expressive system



Gerardo Hernández (1998), the humanist paradigm considers the student as the center of pedagogical activity, as an individual entity, unique and different from others.

Ennmanuel Levinas (2000), Considers that humanism fosters the study of the human being in an integral way, as a whole, with a personality in permanent change and constant development, and immersed in an interpersonal context.

Fernando Bárcena (2000), Ensures that in the humanistic paradigm it focuses on the personal growth of the students; in promoting creativity; in promoting the experience of interpersonal influence through communication and group work.

Figure 4. Contributions by different authors with their criteria on contemporary theories

They explain a compendium of the contributions made by authors about contemporary theories, during different stages of the research, to remind teachers of the variety of innovative approaches available to them to be practiced in classrooms and to maximize their abilities. of future generations.

IV. Conclusion

The application of contemporary theories of learning contribute to the improvement of the educational process, despite having different meanings and orientations, all converge in the main point of their approach, putting the student as the central axis of education and the idea that they are protagonists of their own learning, eliminating the traditionalist role of the teacher transmitting knowledge, so that the improvement of skills in students is sought in an integral way and reorganizing educational practices, taking into account the needs of students, their styles and learning rhythms, as well as the functioning of the learning brain, without neglecting the formation of the human being in the emotional and humanistic part, promoting the construction of new knowledge with the help of technology that enables the teacher to develop an interactive pedagogy and exciting, that arouses in the students the interest to learn.

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