# **Appropriation And Development Of Cognitive Tools In Post- Pandemic: Possibilities Of An Emergent Curriculum**

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#### **ABSTRACT**

Human beings learn about the world and life through the processes of interaction and appropriation of the tools provided by their cognitive environment. This appropriation of knowledge and construction of life is regulated by the relationship between the self, the self and the other, in the various processes of socialization and in the processes of negotiation and cognitive mediation between subjects.

These basic socioemotional elements for building knowledge have been highly affected in the post-pandemic context due to the social distancing to which we were subjected and the closure of educational institutions, which means that at present the social fabric built cooperatively as a social brain has been seriously affected.

The position of this social research is precisely about pedagogical strategies in a post-pandemic context that value and rescue a socioemotional education. This research exercise was carried out from the development of the module of Cognition and multimedia thinking process in a public institution of higher education in the city of Bogota-Colombia.

The research is of a qualitative nature, assumed as interdisciplinary social research; the population is constituted by a group of eight (12) students, enrolled in the course of cognition and multimedia thinking processes, two (2) members of each family and a total of 16 students of early childhood, elementary and middle school. For a total population universe of 42 participants.

It consists of four phases: FIRST PHASE: intervention and analysis of texts with graduate students in mixed meetings (virtual and face-to-face); SECOND PHASE: application of workshops that contribute to the socioemotional and systemic development of participating students; SECOND PHASE: application of these workshops to early childhood, elementary and middle school students; FOURTH

PHASE: surveys and life histories of the families of the graduate students who attended the classes, of the children and adolescents who were part of the process.

The triangulation of the results shows the importance of understanding the perspective of current education under other paradigms in the face of the emotional subject from their empathic relationships in the context of isolation due to the pandemic and its effects in post-pandemic.

**Keywords**: socioemotional education, deconstruction, empathy, thought processes, post-pandemia-covid 19.

### 1. INTRODUCTION

Education is a process of human transformation that only occurs in the coexistence and cooperation of the actors of the educational process: family, school, directors, teachers, community, neighborhood. Thus, education defines itself as a process of deconstruction and construction of possible worlds, which must be inhabited by and for human beings in a universe of knowledge in which students, teachers, intuitions and social contexts change together in a congruent way. This means that education has to do with the human transformation of the soul, mind, spirit, body and socio-cultural context.

The research proposal arises precisely from the dynamics and academic-pedagogical strategies in the post-pandemic scenario covid 19, where certainly the transverse axis that enables an education for life and for today's society is in conflict with traditional education. From there follows the importance of an education that guarantees a new learning environment, a socioemotional learning in virtuality vs. face-to-face. It is clear how the digital migration forced to reformulate the curricular planning, which put on the table the importance of developing a dialogic and cooperative posture where the socio-affective processes mediated in the face of virtuality and the conflict created in post-pandemic. With the purpose of seeking alternatives and alternative and emerging pedagogical strategies, a series of experiential workshops were proposed with the participating community from the socio-affective perspective to strengthen cultural, educational, family and social life practices, understanding as educational contexts, the tripartite relationship: family-curriculum (school) -society, in the post-pandemic context.

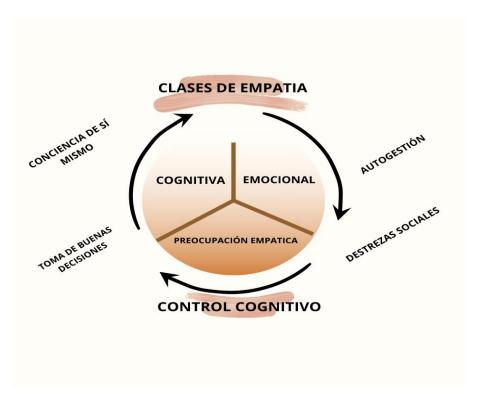
# 2. CONCEPTUAL APPROACH

Appropriation of socioemotional knowledge in the context of post-pandemic Socioemotional Empowerment.

Emotions not only establish a satisfactory relationship with life, but they are the secret that explains how we act and make decisions, these are empathic relationships that empower or impoverish our being, our self, our spirit.

It is a priority for teachers to understand what empathy from neuroscientific premises help us to generate and build healthy relationships with our children, youth and adults. Empathic processes, according to Goleman [1] are constituted as the social root of human relationships, characterized in fundamental axes that are part of the integral formation of human beings, so a cognitive empathy, is the process that helps to understand different perspectives, structures and ways of thinking in order to understand the self, the world and the other, this configuration leads us to the following characterization, called emotional empathy whose precept is the social brain; that is the relationship of brain to brain, world to world, which provides an internal and instantaneous feeling about the feeling of the other. It is a process of understanding otherness, which in turn manifests itself in the effect of parental behavior, called empathic concern. The absence or insecurity of cognitive control (empathy) causes harmful effects on the individual's social behavior. The experiential human development workshops applied to the participants strengthened their self-awareness, good decision making, self-management and social skills, which turned towards empathic processes, as shown in the following graph.

## **TYPES OF EMPHATY**



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# Graph 1. Empathy and cognitive control types. Own creation.

# Managing emotions through education and human development. Importance of curricula.

In general, the multiple socioemotional variables that affect educational, social and family activity in times of forced isolation are recognized, specifically in the context caused by covid 19 and its effects in the post-covid stage. This situation forced the actors of the educational process to rethink the curriculum, study plans, methods, models, pedagogical strategies, theories, etc. A contemporary, emergent and resilient view is essential in the face of the new configurations and resignifications imposed by today's society. Aspects that once recognized inhabit the development of this proposal, as Ortiz states:

To approach such a fundamental fact as education, it is a priority to know, dialogue and co-create with the other, so the curriculum is assumed from other dimensions of knowledge, where the social construction of the actors of the educational process, represent a contribution and a great change in the current educational paradigm (Ortiz,) [2].

The reading of curricula and curricular components (epistemic, theoretical, pedagogical, psychological, sociological conceptions, methods, models, activities, strategies, etc.) must be conceived from a transversal viewpoint,) should be conceived from a cross-cutting viewpoint whose axis is the importance of dignifying, signifying and giving meaning to life to the socioemotional space from cognitive, metacognitive, communicative, creative and investigative practices in the face of inter- and transdisciplinary paradigms; understanding the diverse perspectives, the multiple mental models that govern the world and understanding our place in those spaces, makes individual brains become a social brain that acts and thinks for itself and others; a situation that was highly affected in the context of isolation due to the covid 19 pandemic and that left serious consequences in the post-pandemic from the socioemotional aspects that directly affect the family, society, school and culture itself..

The proactive development of these conceptions allows the formation of creative, unifying and analytical leaders, capable of generating spaces for communication, interaction and consensus based on the recognition of self, others, common interests and the value of the cultural environment. The empathic processes are premised on achieving individual fulfillment in order to generate collective progress.

Therefore, as agents of social change, we must strive to contribute with our knowledge, values and life practices, to the development of pedagogical and educational

actions (knowledge, norms, customs and beliefs) free of cognitive biases, in the understanding and construction of meanings and senses of life, which allow us to innovate, project and impact on individual, social, cultural and educational environments, always bearing in mind the context and realities of the actors in the educational process, leading to the construction of a just, equitable, empathetic and unifying society based on diversity; aspects that consolidate a culture for peace and an affective-effective and transforming action of the social reality.

The proposed research reflects the real scenarios of pedagogical performance in the face of the full dimensions of the human being. This implied questioning the need for a change of paradigm in current education, it implied strengthening social and cultural dynamics and innovative, interactive and global academic strategies that were concerned not only with the achievement of academic contents but also with the development of a socioemotional education that in turn would contribute in each one of us, to the understanding of ourselves, to the understanding of others, to favor sensitivities, to the recognition and valuation of difference and to the consolidation of coexistence.

Precisely, in a scenario posed for this, the importance of dignifying, meaning and giving meaning to the socio-affective space, from the management of emotions and empathic concern Goleman, [1] favors social sensibilities, teaches to deconstruct, to rethink, to be passionate and to transcend in human development and in the construction of learning that makes the integral formation of the academic community is strengthened in the fields of education and social sciences.

It is then, as emotions are considered essential in the construction of a life project, these address three response systems ranging from cognitive/subjective, behavioral/expressive, to physiological/adaptive. For some psychology theorists these aspects correspond to the way in which emotions are manifested from the individual, the social and the collective Goleman, [3] which influences decision making for life.

Thus, emotions are associated with situations that generate pleasure and displeasure, which allows people to commonly associate them with positive and/or negative experiences they have lived throughout their lives. Hence the importance of deconstructing, constructing and resignifying the intrapersonal and transpersonal process for the achievement of their life project, which implies being aware of the cognitive biases that we inherit from the environment and our interpersonal relationships with the world of life and, above all, how we mean them and give them meaning; often carrying an emotional load that does not correspond to us, we simply learned them, we repeat them, we inherit them without full awareness.

Under these perspectives, it is important for the student to carry out self-recognition activities that lead him to the discovery of the different values he has in himself and of his cognitive and affective condition in the development of his metacognitive processes; an aspect on which Vygotsky, [4] Goleman [3], Goldberg [5] have already established its importance from a theoretical perspective linked to socioemotionality from the study of the mind and its self-management.

This enables us to broaden our socioemotional, visual and cognitive field. These holistic alternatives of world vision favor the development of a simultaneous thinking, of a total perception of the world, of the knowledge as a center that opens to the multiple perceptions of man, recognizing the body, mind, spirit, reality and thought as a multidimensional whole.

Therefore, human development, socioemotional education and curriculum should be understood as a purpose of life project that carries implicit processes of transformation of the subject from their family, social, economic, political environment, allowing individuals of action, passion and desire to be leaders-citizens, critical and proactive in favor of the construction of society.

In such a way that from the strategies of socioemotional regulation developed in post-pandemic context, from the chair of cognition and multimodal thought processes, it was achieved from the tripartite relationship mentioned above: family-curriculum(school)-society, to establish cooperation processes with the mentioned nuclei by inviting their families to participate in the workshops where precisely, the socioemotional approach; whose interest is to develop self-awareness, self-management, empathy, social skills and good decision making (emotion management) was configured as part of the collaborative and creative project from the very reading of the curriculum and action-research in the field of pedagogical scenarios generated in pandemic and post-pandemic.

The current educational and social contexts constitute an obligatory way of reading the world of school and life under another lens, involving society in the educational process. It is also important for families and students to know what teachers, families and young people think and how they configure the world in the current cybercultural context with respect to educational processes, with the understanding that "To educate is to enrich the capacity for action and reflection of the learner; it is to develop in communion with other beings. To develop in the biology of love that shows us that "the living being is a dynamic unity of BEING and DOING" (Maturana and Nisis. p 47). [6] Relevant aspects in educational action.

# Self-awareness, self-management and cognitive control.

The workshops proposed for this achievement are exercises where the topic to be developed is recreated based on previous readings and the cooperative participation of the actors of the educational process (context-school-family-postgraduate students). These workshops and exercises were later applied by our postgraduate students in elementary and middle school contexts. The results obtained in the appropriation of the development of socioemotional processes in the post-pandemic context were highly effective.

# 3. METHODOLOGY AND ANALYSIS OF RESULTS.

The methodology was qualitative with a descriptive scope, the data collection instruments applied were the semi-structured interview, the logs, the participation workshops and the life histories of the participants that overturn the look from a dynamic of constructivism and otherness. The workshops have an interactive face-to-face-virtual character and constitute pedagogical activities aimed at the knowledge, understanding and production of communications of different kinds: corporal, emotional, oral, written, linguistic, plastic, symbolic, musical, literary and pedagogical. In turn, these workshops are projected to other communities.

Phases of the methodological process:

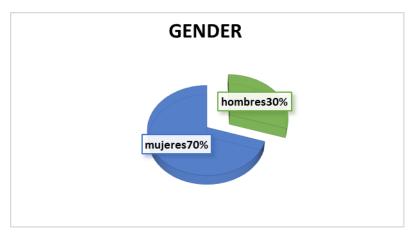
1. Intervention and analysis of interdisciplinary texts with students enrolled in the cognition and multimodal thought processes course.

In this space the application of experiential workshops that contribute to the socioemotional and systemic development of our students and their families was achieved. This pedagogical strategy seeks to integrate the different axes of the curriculum, without ignoring and highlighting the importance of the theoretical and epistemic foundation.) From this holistic viewpoint, such interpretation of experiences reflects a high level of understanding of each and every one of the significant events of individuals and the psychic traces that somehow modify the cognitive structure in these events.

- a. Application of these workshops to early childhood, elementary and middle school students.
- 2. Semi-structured interviews and life histories of the participants in the process.
  - 3. Conclusion and analysis of results

Based on the semi-structured interview, some of the processes used by our students are shown, whose acceptance variable positive valuation is in a range higher than 91% of the total population universe of 42 participants, of which 70% were

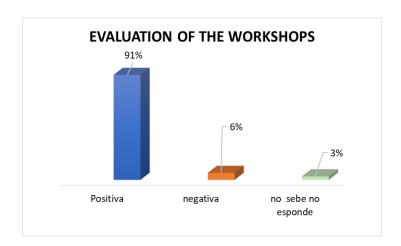
women and 30% men as shown in graph 1, for its analysis the following criteria were taken into account: **Empathic processes, Cognitive control, social projection.** 



**Graph 2. Gender of the population. Source: Own elaboration.** 

All of them were asked about the acceptance variable with a positive evaluation in a range higher than 91% of the total population universe of 42 participants, 6% evaluated it negatively, while 3% did not know / did not answer, as shown in graph 2, it should be explained that this gender factor did not alter the results on the acceptance of the workshops.

# **RESULT OF SEMI-STRUCTURED INTERVIEW**



Graph 3. Valuation of the workshops. Source: Own elaboration

According to the graph above, the participants of the workshop on socio-affective processes and resilience in the context of post-pandemia were highly favorable, since they stated that these self-esteem and cognitive development exercises led them to understand and become aware of their empathic processes, self-care and decision-

making, recognizing the importance of managing cognitive control for life as human beings, which they stated was projected in their family and community.

Once this semi-structured interview was evaluated, we took as a basis for the validation and systematization of results the logs or life stories of the workshop participants, whose stories expressed their anguish, desires and dreams at the time of isolation due to the pandemic, this result was divided into a before and an after the face-to-face-virtual workshops of emotional awareness.

In this process, the graduate students participated, who also led the experiential workshops for their families and students (boys, girls, adolescents), from the agreed campuses. This perspective of analysis led us to confirm the findings of Serres [7].

"...this decisive change in education - a change that is gradually affecting the entire space of world society and all of its obsolete

institutions, a change that not only touches, and by far, education alone, but also the

We feel that we have an urgent need to do so, but we are still a long way off. (p. 11)

This research proposal links the teaching practice, the curriculum, the family and society from questions such as who we are, what we feel, how we are, what is happening today; this means a path towards a binding and modern education whose collaborative approach favors the study of the impact of life in resilient contexts and makes us proactive people, capable of critical, productive and reflective analysis.

As Woods states [8] "a life history is a personal document that offers a complete vision of the historical, cultural, social and political context", this vision allows, from sensitive documents, to understand the structures and cognitive patterns of the construction of knowledge of the participants, which influences their decision making and their life project. This constitutes and resignifies the view of the educational variables that must configure an education for today, not for yesterday. In such a way that the current world situation forces the school and society to turn their gaze under emerging perspectives of educational and social relations from a dynamic of constructivism and otherness.

As mentioned above, it is important to start from the current real physical and social contexts in order to abstract, build and deconstruct valuable life experiences that favor educational realities based on the valuable experiences of the active actors of the educational process. Freire already stated that the most effective way to relate to the

world around us is by solving problems "knowledge emerges through invention and reinvention, through the restless, impatient, continuous and hopeful inquiry that human beings seek in the world, with the world and with each other" (Freire, p.53) [9].

Thus, the school can no longer deny emotionality. Discovering, transforming, creating, recreating, deconstructing, interpreting, specifying, arguing, valuing, are thought processes that, if strategically managed, become the daily transformation of our emotions and knowledge, since there is no conscious action without emotion; these ways of seeing and understanding the world are a sign of change of the states of mental inertia; that is, the cognitive biases that we have been forming as part of our experience, knowledge and beliefs of life "represent the premotor platform that drives or stops most of our actions" Llinás,, [10] in such a way that our system of beliefs and values can be altered, if the process is regulated by the hypothalamus that guides the emotional aspect, that is, that connects the physiological link between the emotional state and the motor state. Aspects that are evidenced in the analysis of results, let's see:

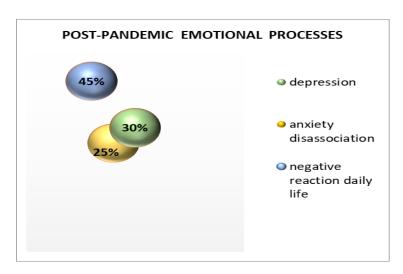
Comparatively, a cause-effect relationship is established due to the context of pandemic-pospandemic, the analysis instruments applied show how the participants, feeling their educational and socialization processes interrupted, were highly affected in their emotional processes in post-pandemic.

The absence of loved ones and loneliness brought to the forefront the links we humans have between mental health, social interrelationship and education. The negative effect on mental health is evident, as demonstrated by the ranks and categories presented in the life histories, the interview and the experiential workshops.

Likewise, in the findings, the population studied was forced to learn, establish or strengthen virtual-presential tools, which led to a high level of stress, abandonment of their families and long working hours. Let's see:

Analysis criteria: depression (emotional exhaustion, low physical and intellectual productivity, lack of motivation for daily, work and academic tasks); mental health (anxiety and uneasiness, backaches, headaches); social and family isolation (affected by the context and the negative situations that arise in their daily lives, in their self-care, in their work and motivational productivity).

Affectation of emotional processes in post-pandemia.



Graph 4. Post pandemic Emotional processes. Source: Own elaboration

In the previous graph, we can see how 30% of the participant population manifested problems of depression (emotional exhaustion, low physical and intellectual productivity, lack of motivation for daily, work and academic tasks). The forced inclusion into virtuality produced in 25% of the participant population mental health affectation (anxiety and uneasiness, backaches, headaches). Thus, graph 2 shows that the trigger or cause was the social and family isolation in pandemic which produced a shock effect in post-pandemic; in this sense, 45% of the participants affirmed being affected by the context and the negative situations that arise in their daily life, in their self-care, in their work and motivational productivity.

Non-attendance to school scenarios and to the usual social activities was a trigger for the affectation of the mental health of the participants, largely due to fear and uncertainty; which generated in the participant population (feelings of anguish, loneliness, irritability, sadness, and a high level of worry), categories manifested in the life histories. Hence, it is necessary to urgently include emotional processes in education in the current post-pandemic context.

This post-pandemic social behavior is also associated with difficulties in family and interpersonal relationships managed within the families who were forced to share 24 hours a day during the isolation period. Said categories of analysis were established from the semi-structured interview and the logs created by them, the categories: restlessness-irritability-sadness-violent impulses, manifested in depression and generalized negative affect reiterated in the participants are reflected in the aforementioned data.

On the other hand, according to the Ministry of Health, [11] both physical and psychological impacts in the context of a pandemic generate effects that impact mental health such as high levels of stress, uncertainty and anger, which contribute to an increase in intrafamily violence and to channeling factors of depression and disenchantment with life, factors that have worsened in the current post-pandemic state in educational and family scenarios with high repercussions in social violence.

### **CONCLUSIONS**

In this action-research, the emphasis given to life histories and the creation of the logs represents a change of perception from the researcher himself, since the relationship of the variables is being constructed based on personal and social experiences, without denying the context of the real educational practice. These new readings and ways of reading educational needs constitute a paradigm shift from the traditional educational premises where the teacher was the one who managed the knowledge.

The research shows how current education demands new dynamics and approaches to reality. It was determined in this process that the global situation of isolation and its post-pandemic effect affected the metacognitive functions of the participants in the case of projecting goals, establishing plans to fulfill them, organizing the means to carry out the plans, controlling and judging in order to make decisions; This higher order finalistic behavior is highly important because it is what prevents or hinders important aspects such as attention, since being connected in front of a screen for a long time affects attentional processes, motivation and assertive communication, and social skills are lost because the real-reality is disfigured in the world of virtuality and social isolation, hence the educational crisis in post-pandemic is of an emotional nature.

These so-called executive functions that allow the development of cognitive skills such as: flexible attention, working memory, inhibitory control, define us as social beings, as integral subjects and active members of a society, but when this free will of decision making is restricted, learning processes and cognitive routines are altered; hence, domestic and social violence have increased and reality is being disfigured in this apparent post-coital freedom (see graph 2). (See graph 2)

In this order of ideas, the vision of the actors immersed in the educational process must be mediated in the face of the current reality-virtual-real, from polyphonic discursive practices, where the discussions allow to select, introduce, maintain, question and reflect on various disciplinary and curricular topics. To cognitively strengthen the students' actions towards a reflective process reconfigures and projects in him a subject of 'action, passion and desire',

who allows himself to question, relate, extrapolate, investigate, repair, say or contradict and stimulate divergent thinking and different points and metapoints of view Ortiz. [12]

Therefore, it is crucial to rethink the curriculum from public policies since, as this study confirms, children, adolescents, young people, teachers and family, find new dynamics and realities under different circumstances, which highlights family relationships with education and life itself, and put adults (parents-teachers) in an indispensable role that brings them closer to the understanding of empathic processes: emotional, cognitive empathy and empathic concern, Goleman, [3] a socioemotional aspect that strategically and pedagogically managed favor the recognition of the other in front of others, whose fundamental role is to empower subjects in society. (See graph 1)

From this proposed tripartite scenario: relationship between the self, the other and the world, in order to validate and configure these relationships it is essential to exemplify with one's own actions by reflecting on this link between the self, the other and the outside in a current social-real context, where the center is education, family and life.

Creating a favorable scenario for the students of this chair favored the recognition of their feelings in their social and educational work based on real-virtual-presential education and opened the doors to work actively with the community, establish socioemotional and academic links with families, society and education.

In the workshops conducted with the participants, it was found as a strength that enabling spaces for recreation and collaborative family work, either virtually or in person, allows the actor of the educational process (children, adolescents, adults) to express their feelings or the situations they live in the context of isolation helps to balance mental health and enables the management of emotions, thus, a resilient position in life (see graph 1).

Self-recognition through experiential workshops allows social interaction under equal conditions, favors and activates neuronal flexibility and, in turn, constitutes a framework that enables a cognitive network from which the social brain is activated. The development of these socioemotional cognitive processes brings us closer to the understanding and analysis of educational and socioemotional processes (see graphic 2).

Given the above, from the experiential workshops, activating neural networks, developing flexibility and innovation are key elements in relation to memory and motor

activation; this relationship activates the senses and therefore improves cognitive processes and interpersonal relationships. The experience of the participants reflected during the virtual workshops in the context of pandemic, made possible a range of possibilities to work in cooperation and not to lose the abilities, habits, cognitive and social skills (see graphic 1).

Thus, the **appropriation of socioemotional knowledge in the post-pandemic context** shows that the relationship with the pandemic experience significantly affects the relationship with oneself and one's environment from the emotional and affective point of view, which is projected in the relationship with the immediate context, be it family, school, society (See Graph 3). (See Graph 3).

The emotional, economic and socio-affective impact produced a change in the way we look at ourselves, relate to each other and build knowledge. Hence, it is imperative to strengthen family-school-community and knowledge relationships in the current immediate context.

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