

# Curriculum configurations: training purposes and learning content

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**Abstract:** The concept of pedagogy, pedagogical subject, and pedagogy as a science, discipline, knowledge, or reflection have been studied by numerous authors on all continents. The traditions of Germany, France, the United States, and Latin America stand out in this approach. Conceptions of this science, which have been configured throughout the history of education, differ across regions and countries. Therefore, a thorough, detailed, and in-depth analysis of the epistemic configuration of this notion requires taking into account not only its epistemic dimension but also its geographical dimension. This article reflects on the configurations of the curriculum: educational purposes and learning content. It is assumed that educational purposes should guide learning actions and that curricular content is not pretty or ugly, easy or difficult.

**Keywords:** education; training; pedagogy; curriculum; didactics; teaching; learning; assessment

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## 1 Introduction

This article groups the quotes from the authors according to the contributions they make to curriculum theory, reflecting on the episteme that has been configured throughout the history of education on the triad pedagogy-curriculum-didactics, and its consequences for education.

Coll (1994) proposes four questions that should guide curriculum design: What to teach? When to teach? How to teach? and What, how and when to evaluate? The first question refers to school objectives and content, and the others are related to pedagogical and evaluative strategies. This author argues that a properly designed curriculum should provide information on the answers to these questions.

De Zubiría (1994) then developed and argued the assumption that these same questions could be useful to delimit a pedagogical model of educational organization, and that the level of generality of the answers to them could place us in an educational theory, a pedagogical model or a school curriculum.

According to Coll (1994), the configurations of the curriculum and the elements it contemplates to successfully fulfill the above functions can be grouped into four chapters:

- (1) It provides information on what to teach. This chapter includes two sections: contents and objectives.
- (2) Provides information on when to teach.
- (3) Provides information on how to teach.
- (4) Provides information on what, how and when to evaluate.

On the other hand, the Curriculum Theory tries to answer ten essential questions that denote the actions to be

developed by teachers and students: who teaches, who does it teach, what does it teach, how does it teach, who learns, with whom does it learn, what does it learn, how does it learn (Addine, 2004). Likewise, Flórez (2005) makes explicit five basic questions that pedagogues have formulated throughout the history of education, from Comenius (2012) to the present day, and that define the eligibility criteria of any pedagogical theory in a coherent and harmonious manner: "in what sense or towards where is an individual humanized, how is this humanization process developed, with what experiences, with what techniques and methods, and how is the teacher-student interaction regulated" (p. 114). From the answer to these questions are derived the criteria of pedagogical eligibility that allow distinguishing a pedagogical theory from another that is not: to define the basic goals of formation in correspondence with the type of human being to be formed; to characterize the formation process, the ways, the path to follow, its dynamics and sequence; to describe the essential educational experiences to stimulate and enhance human development; to identify the regulations that allow qualifying the interactions between teacher and students; to determine the methods, techniques and procedures to be designed and used in the educational practice.

The application of curricular configurations in the classroom gives us away. We can identify the curricular approach that predominates in our educational praxis just by analyzing the terms we use to formulate our educational intentions, the characteristics of the contents we deal with, the way we organize teaching and the classroom, the texts we use in class, the students' notebooks, the notes we make on the board. The curricular theory that underlies the class is revealed not only in the method used but also in our intentions, in the contents, in the resources used and in the evaluation. These configurations are the unmistakable imprint of our pedagogical conception (De Zubiría, 2011). Each pedagogical theory and each pedagogical model define its own didactic conception differently.

If we make a generalization of these heuristic proposals, we could say with Coll (1994), De Zubiría (1994), Addine (2004) and Flórez (2005), that the curriculum of the educational organization must display the configurations of the formative process, and in doing so, answer the following questions oriented to operationalize in pedagogical practice the epistemic principles of training, teaching, learning, evaluation, and the role of the teacher and the student: Why teach and why learn? (problems); Why teach and what learn? (training intentions); What to teach and what to learn? (curricular contents); How to teach and how to learn? (methods or methodological strategies); With what to teach and with what to learn? (didactic resources); What and how did the students learn? (evaluation).

In this article we share ideas on the formative intentions and characteristics of curricular contents. These are curricular configurations on which teachers must reflect today. The following is an epistemic overview of each of these curricular configurations, with a double illustrative intention: as a pedagogical, curricular and didactic debate, and to serve as a conceptual and methodological reference to the work that each teacher must develop in his or her daily life.

## **2 The formative purposes should guide the learning actions**

Nowadays, there is a proliferation of books, recipes and manuals on how to study efficiently, obtain excellent academic results and be a good student. These books describe various study strategies and techniques, but almost never refer to the student's motivation, which is essential in the learning process, nor to his or her objectives and intentions in this regard. In order for the student to learn in an authentic and developmental way, it is not enough to teach him/her fast reading techniques and study methods. This is important, it is necessary for the student to develop study, calculation, writing and reading skills, but more important than these skills is to recognize that learning involves a lot of effort, and to have intentions to learn in depth, otherwise, all the study skills developed will be of little use.

De Zubiría (2011), based on Delval and Peñaloza, points out that the question of why allows us to define the purposes and goals of education. However, in the process of micro-curricular design, the teacher does not always determine and

formulate the objectives in the first instance; many times these are implicit and become concrete at the end of the process, although we know that the purposes and intentions should guide the teaching and learning actions, hence it is important to make the objectives explicit, in order to know what is intended to be achieved.

In his book *Basic Principles of the Curriculum*, Ralph Tyler describes two proposals for the formulation of academic objectives, both of which are based on learning theories. Tyler (1986) refers to the two volumes on the psychology of mathematics published by Thorndike, a volume on the psychology of algebra and another book on the psychology of arithmetic. In these books published more than 70 years ago, Professor Thorndike formulates thousands of specific objectives because his theory of learning states that the student must establish connections between specific stimuli and specific responses. In this way, a behaviorist conception of learning is applied, considering it as a very specific matter, similar to the specific formation of habits: the stimulus-response relationship.

Tyler (1986) also refers to the proposal of Judd and Freeman, who formulated a theory totally different from Thorndike's, at the same time, but at the University of Chicago. This theory conceives teaching as a generalization of solutions to problems, based on developing generalized models of approaching situations. This generalized theory of learning implies the formulation of general objectives.

Teachers often use Benjamin Bloom's taxonomy of educational objectives. This is a classification that summarizes in a quick, specific and synthetic way the verbs that should be used in the formulation of objectives, as well as the aspects that can be evaluated in objective tests, such as criteria, concrete facts, methodology, conventional rules, sequences, trends and terms. However, this typology of objectives is framed within a behaviorist approach to education.

Educational intentions are the guiding component of the pedagogical process. As can be seen, sometimes we talk about goals or purposes, other times we refer to achievements or aspirations, and sometimes we talk about expected results. Álvarez de Zayas (1992), following Tyler, refers to objectives, which constitute "[...] the pedagogical model of social commitment; they are the purposes and aspirations that, during the process [...] are shaped by the student's way of thinking, feeling, and acting [...]" (p. 58).

Álvarez and González (2003) define the objective as the pedagogical expression of the social mandate; it is the aspiration, the purpose that is sought to be formed in students. With this definition, it is declared that the objectives constitute the component that best reflects the social character of the pedagogical process and establish the image of the human being that is intended to be formed in correspondence with the social demands that the school must meet (Calzado, 2004).

On the other hand, Bruner (2012) highlights that from the point of view of competence as an objective of education, it is necessary that the school curriculum (whether macro or micro) formulates the objectives, an argumentation of the skills that the student must configure, as well as the activities that will allow them to be evaluated.

As can be seen, the formulation of instructional objectives has been a common practice in order to carry out a teaching process in which teachers have a clear idea at the beginning of each topic of the learning that students must achieve by the end of that unit or subject, because "without goals that serve as focal points, instruction may be disorganized, ineffective, and confusing" (Bisquerra, 1998, p. 340). However, the very name of the objective makes it seem as if the student is being excluded from its formulation and that the school is the sole responsible for determining them. Furthermore, objectives can focus only on the cognitive and intellectual dimension of the human being, ignoring and relegating to a secondary level the value-based, axiological, and attitudinal aspects. If the objective is instructive, it would have serious limitations for achieving adequate student training. For this reason, I think it's better to talk about educational purposes or educational intentions, but intentions that take into account the holistic nature of the students' personalities and

also offer the opportunity for them to participate in their formulation, rather than just the teacher defining what they want to develop in the student.

Wallon (1984, 1987) asserts that children should be studied and educated based on the main dimensions of their psychological development and evolution. From this perspective, educational intentions should take into account not only the cognitive dimension, but also the affective and motor dimensions. "The first dimension is linked to concepts, conceptual networks, and cognitive competencies; while the second is linked to affect, sociability, and feelings; and the last, to praxis and action" (De Zubiría, 2011, p. 45). Human beings think, feel, and act; they configure knowledge, their being, and their doing; they develop cognitive, attitudinal, and procedural processes; that is, their cognitive-intellectual, affective-emotional, and praxiological-instrumental configurations emerge in their daily biopraxis. Therefore, educational intentions must take these three human configurations into account. In this sense, De Zubiría (2011) characterizes three types of human competencies: cognitive, practical, and socio-affective. Correspondingly, training intentions can be of three types: cognitive, procedural, and evaluative (knowing, doing, and judging).

Coral (2004) proposes several goals that students must achieve in order to function in the 21st century. These goals are derived from the Conceptual Pedagogy model and are related to learning to work in a team, acquiring a democratic sense, shaping thinking skills, developing creativity and reading comprehension, having the capacity for abstraction and a sense of foresight, being flexible, ethical, and autonomous. I think that all people have talents to develop, but the school must discover them; that should be the main function of education: to contribute to the development of natural human abilities. The main task of education, which has its genesis in the ideas of the Enlightenment, is, in the words of Kant (2004), "to form each individual's capacity for judgment and reflection so that each person has their own head, their own ideas" (p. 97). That is to say, the purpose of education in the 21st century should be none other than to form a critical spirit in students, a reflective capacity to think for themselves, creative and configurational thinking.

Bain (2007), on pages 99 and 100 of his book *What the Best College Professors Do*, points out that Arnold Arons, a physicist at the University of Washington, identified some general patterns about the reasoning ability of his students and made some reasoning inventories that he then systematized in the configuration of ten reasoning skills and critical thinking habits.

The development of configurational thinking must become a formative intention. Reason is more important than rationality, freedom is more important than causality, and along these same lines, Hoyos (2013) argued that ideas and culture are more important than research.

One of the main educational objectives of this third millennium is related to stimulating and enhancing the capacity to contextualize knowledge and learn from a holistic perspective. Education should contribute to the self-development of individuals, enabling them to become citizens, caring, respectful, and responsible individuals, firm and solid in their national identity, learning to coexist and embracing the human condition.

Traveset (2013) proposes some of the training purposes that, along the lines argued here, could be included in the curriculum:

- ※ Decode the changes that occur in human relationships due to social and migratory movements, different family types, the culture of separation and divorce, adoptions, etc.
- ※ Provide tools and strategies that allow conflicts to be resolved with alternatives other than aggression.
- ※ Educate for death. Provide cognitive and emotional skills to cope with grief and loss.
- ※ Educate for life, so that they find their place in the world they live in, and make life plans.
- ※ Educate to tolerate uncertainty.

※ Promote the development of a positive self-concept and clarification of identity, based on their talents and potential.

※ Promote a sense of belonging and connection to the family, school, neighborhood, country, planet, universe, etc.

※ Promote the acceptance of a model of coexistence that fosters respect for one's own roots and respect for those of others.

※ Being able to find appropriate goals.

※ Be able to establish effective ties with others.

※ Be able to represent and symbolize their learning in different languages (verbal, musical, corporal, plastic).

※ Being able to withstand stress and recover from failure.

※ Being able to appreciate the good things, be grateful for what they have, and enjoy it.

※ To transmit significant knowledge, linked to life, which is the heritage of humanity.

From a humanistic perspective, educational intentions have been defined by Hamachek (1987): to help students recognize themselves as unique and unrepeatable human beings, and to foster the development of students' individuality, identity, potential, and capabilities. Likewise, Roberts (1978) described five objectives promoted by humanistic education: to stimulate positive feelings in students toward subject content; to foster students' personal growth; to enhance students' imagination, creativity, and originality; to provoke learning of content by integrating experiential and cognitive aspects; and to foster experiences of reciprocal communicative exchange among students.

On the other hand, Bruner (2012) points out that in the case of early childhood, there is not enough research on what happens to children at this age and its possible effects on competence. He urges us to continue the debate on what intellectual competence really is and to what extent it includes the mind, the heart, or the community in general, and warns that we cannot limit this issue to education. In any case, the most important thing in this regard, from the perspective of curricular design, is not to limit our actions to the formulation of objectives, but rather to integrate competencies into the declaration of formative intentions, and to do so not only from an intellectual and cognitive perspective, since there are other processes that are not strictly cognitive but nevertheless influence personality, such as hope for the future, confidence, and the ability to control the environment. These and other affective and axiological processes must be taken into account not only in the formulation of formative intentions but also in the identification of the characteristics of curricular content.

### **3 Learning content is not pretty or ugly, easy or difficult**

To fulfill the formative intentions, the student needs to develop his or her thinking and this is achieved through the mastery of a branch of knowledge, which is called the content of learning, of teaching, of the educational teaching process, or curricular content. It is selected from the sciences, the arts, technology, techniques, that is, from the existing branches of knowledge, in short, "the content is extracted from the culture that humanity has produced in the course of its history" (Álvarez and González, 2003, p. 49), it is what is going to be taught and learned, it is what the student needs to configure in order to achieve his formative intention and solve the problem, "what the student needs to master to lead a dignified and happy life" (p. 49).

Álvarez de Zayas (1997) defines culture as "[...] the set of material and spiritual values created by humanity in the process of historical-social practice and characterizes the level reached by society" (p. 34). Addine (1998) also considers content as "[...] that part of the culture and social experience that must be acquired by students and is dependent on the proposed objectives" (p. 22). For his part, Coll (1992) states that content "designates the set of knowledge or cultural forms whose assimilation and appropriation by students is considered essential for their development and socialization" (p. 13).

González, Recarey, and Addine (2004) point out that content answers the question: what to teach and what to learn. They emphasize that "what is taught is the result of culture, which, taking into account the political and social dimension, is selected so that the student can appropriate it" (p. 70). This highlights traits of traditional pedagogy in which it is the school and the teacher who determine what the student should learn and what should be taught. However, I think that the teacher can make a concise and concrete proposal that expresses the conceptual invariants that the student must assimilate, since it is practically impossible to transmit to students all the culture that humanity has accumulated throughout its historical development. Therefore, it is necessary to ask the question of what to teach and what to learn, a question so ignored by the pedagogical models that have proliferated in the history of education. It is necessary to prioritize, select, and decide what content is introduced into the curriculum. But who should make this selection and under what criteria? Content is expiring at an extraordinary rate. Knowledge is becoming increasingly obsolete and aging too quickly. Moreover, teachers teach fragmented disciplines and subjects, lacking epistemic integration between them, but knowledge is one, and teachers must be trained in the unity of science. What should be done then?

González, Recarey and Addine (2004) assume four basic criteria that constitute systems to establish the contents that are taught and learned: knowledge, skills and habits, experiences of creative activity and relationships with the world.

The knowledge system refers to "information related to nature, society, humanity, art, sports, science, technology, and ways of acting [...] This is the case with concepts, regularities, laws, and theories [...]" (González, Recarey, & Addine, 2004, p. 70). The system of skills and habits develops in an integrated manner with the knowledge system, and vice versa; concepts cannot be learned separately from the development of skills and habits. "The system of relationships with the world includes systems of values, interests, beliefs, feelings, and attitudes; it must be achieved in close interrelation with the other contents and other configurations of the teaching content" (González, Recarey, & Addine, 2004, p. 71). It represents the attitudinal content, the axiological configuration of the human being, their affections, emotions, ideals, and human beliefs. These authors define the system of experiences of creative activity as content related to problem-solving, critical, reflective, divergent, and creative thinking, cognitive independence, creativity, originality, and imagination. Ultimately, these processes can be considered inherent to the axiological or affective-emotional makeup of the human being.

The configuration of these content systems guarantees compliance with the four basic pillars proposed by UNESCO to address the challenges of education in the 21st century. In this regard, González, Recarey, and Addine (2004) establish the harmonious and coherent relationships that can be generated between these pillars and the systems they propose. Learning to know: System of knowledge and System of experiences of creative activity. Learning to do: System of skills and habits, and System of experiences of creative activity. Learning to live together: System of skills and habits, and System of relationships with the world. Learning to be: System of experiences of creative activity and System of relationships with the world.

In general, these authors propose the characteristics that the contents must have so that they "respond to a teaching-learning process that is a developer, promoter or agent of educational change: globalizing, articulated, organizing, functional and applicable" (González, Recarey and Addine, 2004, p. 72).

On the other hand, Perkins (2003) suggests that in the smart school model, the most important thing is not the method and pedagogical strategies but the content. He asserts that educational reforms should focus more on shaping a global and holistic conception of what we want to teach and relegate the method to a secondary role, although he recognizes the value of didactic theories, but further exalts the curricular content. This author considers it a mistake that teachers sometimes place too much emphasis on the application of new teaching methods and neglect the content, which is why, for him, the

most important thing is not how to teach but deciding what we want to teach.

Based on the above, Perkins (2003) criticizes the fact that most subjects taught using traditional pedagogy do not generate cognitive and mental development in students. He asserts that some subjects are more relevant than others in generating mental processes that allow for understanding the content, and therefore teachers should identify those subjects that generate understanding by selecting specific, real-world content derived from the student's environment and context, which is related to their interests and needs and may have some sense and meaning for them, in order to contribute to the solution of their problems.

Perkins (2003) points out three conditions that a topic must meet to be truly generative: centrality refers to the fact that the topic must occupy a central place in the curriculum; accessibility is achieved if the topic generates comprehension activities in both the teacher and the students; and finally, richness is related to the promotion of "a rich set of extrapolations and connections" (p. 97). The contents must be contextualized; abstract contents must be related to concrete contents because, regardless of how important they are, without the latter they would be too limited.

The representative sensations with which human beings perceive external objects take a long time to form from birth. These sensations are eminently affective and are gradually formed through the child's interaction with adults, in which only pain and pleasure are perceived. A young baby cannot grasp or walk, but slowly achieves this through an affective relationship with everything around him. This is one of the reasons why content cannot be limited or reduced to conceptual, cognitive, and intellectual elements. Children not only learn concepts and notions through cognitive tools, they also learn through affections. Without affectivity, there is no learning. But they not only learn through affections, they also learn affections, not just concepts and skills. Therefore, more important than teaching them content is stimulating them to empathize with and become enthusiastic about affections.

Information is important in the learning process, but more important than information and data is the ability to organize that information, interpret it, and give it meaning and significance. New generations of young people need to develop their abilities to search, select, and interpret information (Pozo et al., 1999). This is because knowledge expires very quickly, ages extraordinarily rapidly, and schools today are not in a position to offer students all the knowledge that science and humanity have accumulated throughout their evolution and development. No curriculum can provide all the relevant information because in liquid modernity, information flows faster, is more dynamic, less stable, more flexible, and more mobile than the educational institution itself.

Educational content must be constantly modified, not only because science advances and develops, and truths are denied, but also because the dynamics of the sociocultural context also demand modifications. In this third millennium, the content of the various subjects must be revitalized, which implies bringing it to life, not just from textbooks but from the student's immediate surroundings. Life within the classroom must be involved; in this way, both the content and the teaching method are subordinated to the sociocultural context. The content will be more limited, but the didactic work will have greater meaning (Díaz-Barriga, 2012).

The human mind is dynamic and configurable; it doesn't operate in hermetic sectors; rather, it's a network of networks, a complex configuration made up of other frameworks and configurations. Therefore, the content of the various subjects cannot be presented to students in a fragmented and isolated manner, so that they can make the effort to integrate it. We must present it to them in an integrated manner, as they perceive it in the world around them. It is important to establish relationships, interconnections, and links between the various contents of a subject and between the various areas of knowledge, and thus the student will learn in a more meaningful and configurative way.

Curricular content is not an end in itself; it is a means to an educational end. Content is a tool for education, an

instrument that enables the school to fulfill its educational function; it provides a pretext for thinking, reflecting, and contributing to the development of students. It must have a comprehensive and integrative concept; its holistic nature is not the exclusive domain of any particular teacher. Although it is distributed across subjects, it is the responsibility of all teachers. All teachers must embrace the content, understanding its meaning and significance in order to integrate it and achieve the necessary coherence and harmony. We must be aware of the danger of compartmentalizing and fragmenting curriculum content, because this is a way of isolating not only knowledge but also teachers, which is harmful to democracy.

On the other hand, in Finland, the country that has had the best education system in the world since 2000, they are already considering eliminating subjects and teaching specific, integrative topics. Likewise, Jesuit schools in Catalonia have begun to implement a new curriculum model that eliminates schedules, exams, and subjects. Teaching is now done through projects where children shape knowledge by solving problems in groups. Furthermore, Wellington College in England, since 2006, introduced a one-hour-a-week subject called "happiness classes" into its curriculum, which teaches children how to live by engaging in debates about emotions. Obviously, the most important thing in the educational process is not the content but the way in which people live in the learning environment. If what we want for our children is that they "grow as citizens, as ethical, responsible beings, who have a dignified, aesthetic, pleasant, creative life -in the sense that they have imagination-, presence for well-being, then emotions play a fundamental role" (Dávila and Maturana, 2009, p. 139), and the main emotion that defines human action is love.

The primary purpose of an educational institution is to educate for respect, solidarity, peace, coexistence, and happiness. This is not achieved solely through the content of the various areas or by creating a lavish and dazzling discourse full of well-intentioned slogans. This must be done, but the most important thing is to create a joyful, pleasant, and welcoming school. Peace, harmony, and happiness are not achieved simply by filling every school space with paper doves or songs of love for our fellow human beings. This must be done, but the most important thing is to love one another in our daily biopractices.

In school, many subjects important for human life are taught, but some are also taught that are not as necessary for life, and important aspects are overlooked, such as the study of human essence and nature. The five great humanizing forces defined by Bruner (2012) should become invariant contents: toolmaking, language, social organization, managing humankind's long childhood, and the need to explain.

In our opinion, from an early age, children should learn four subjects that are very important for their holistic development and formation. They should learn at least one art, one foreign language, one sport, and one trade. Aristotle's ideas on education led him to consider the value of music, art, and literature in the development of the citizen-ruler. On this point, he again radically differed from Plato. For Aristotle, the arts have no practical use and are therefore convenient for the ruling class, which does not engage in productive activities. The arts and humanities are extremely useful because they serve to "form a world worth living in, with people capable of seeing other human beings as entities in their own right, deserving of respect and empathy, who have their own thoughts and feelings" (Nussbaum, 2013, p. 189).

The human way of learning is highly unique. The human brain has the capacity to shape human life itself. What we traditionally call educational or curricular content is not limited to the concepts and notions learned throughout our studies; it also includes emotions, skills, abilities, attitudes, values, and feelings. Content is the input that guarantees the functioning of the human mind and brain. The dynamics of human neural and mental processes depend on educational content; learning one content or another is not the same, and teachers must take this into account when designing curriculum. A human being's life and daily behavior depend largely on what that person has learned. We humans care about the food we eat and the clothes we wear, but we rarely care about the content we absorb, or the books we read. This



is not a trivial consideration: we are what we read. The content of the various subjects our students study will shape their lives.

#### **4 Conceptual contents (knowledge, notions, concepts, theoretical information)**

The theory of the smart school (Perkins, 2003) reminds us of the proposal for knowledge reform outlined by Morín (2011), based on a critique of the characteristics of the knowledge we learn, since we live in a world that favors reductive and disjunctive thinking. Reductive thinking is what reduces complexity to simplicity, instead of taking into account the configurations and networks of conceptual and praxiological relationships that muddle our world. Disjunctive thinking separates everything, fragments, divides. The fragmentation of scientific knowledge is so great that its isolation causes insurmountable difficulties if we try to group together global, essential, and invariant knowledge. "The paradox then emerges of a knowledge that causes more blindness than lucidity" (p. 81).

This fragmented knowledge generates global cognitive delays. Due to the depth and breadth of conceptual fragmentation, students are unable to integrate knowledge into a holistic and configurative system that allows them to establish the inherent relationships between different types of knowledge. Instead, they acquire fractioned and fragmented knowledge that prevents them from relating to the world and hinders their development and intelligence, causing more mental confusion than enlightenment.

The educational reform proposed by Morín (2011) involves introducing the study of vital, fundamental, and global problems hidden in disciplinary fragmentation. This author proposes the study of four essential content areas: human understanding, knowledge of the human, coping with uncertainty, and the planetary era. In this way, relevant knowledge is introduced into the curriculum, situated in its context and in the conceptual configuration to which it relates.

Knowledge is not an input or raw material we introduce into our mind or brain; it is the result of the transformative action of reality, whether material or mental. For Piaget (1945, 1954), knowledge is not a faithful copy of external reality, nor the product of a deployment of the capacities that the subject already possesses, but rather the result of the interaction between the initial endowment with which we human beings are born and our activity transforming the environment. Knowledge is generated from a need. It is an adaptive process. "In the face of a new situation, knowledge must advance. Previous knowledge is not enough. There must be a process of creation, not repetition" (Carreras, 2003, p. 13).

Knowledge should not be reified, because it is not objects that are accumulated to be stored in the head, they are not things that we throw into a container, they are conceptual configurations of sense and meaning through which the student configures the world around him, his world, and in this sense "memory is not the collection of files but the integration of information in a possible future towards which we project ourselves" (Meirieu, 2009, p. 77)

#### **5 Procedural content (skills, abilities, actions and operations)**

Skills "represent the conscious and successful mastery of the activity, closely related to the habits that also guarantee mastery of the action, but in a more automatic way" (González, Recarey, & Addine, 2004, p. 71). Students must not only acquire knowledge but also know how to apply the concepts learned to their daily biopractice; they must know how to do and operate with the learned notions. Know-how is integrated with knowing, and vice versa. When someone knows how to do something, it's because they know it; and if they don't know how to do it, it's because they don't know it, and they think they know it. Sometimes students express that they know something but don't know how to do it. In reality, they don't know it either, because if they knew it, they would know how to do it. All knowledge implies knowing how to do, and all knowing how to do implies knowing. In this sense, skills must be developed in close relationship with knowledge; the dialectical unity between the two favors the intellectual and moral development of students. "Knowledge always exists in close association with certain actions (skills). The same knowledge can be used in a wide variety of actions" (Talízina,

## **6 Attitudinal contents (values, attitudes, affections, emotions and feelings)**

Values are not formed only through a subject on ethics or through moral classes, they are an axiological configuration formed from the reflection that the student makes on his condition as an individual, a member of a society and a species (Morín, 2001), and this triadic configuration determines the integral development of the human being.

Marina (2000) states that "knowledge is important, but it is feelings that make us happy or unhappy" (p. 26). Based on this conception, De Zubiría (2008) privileges feelings over academic knowledge, arguing that this is recommended by hundreds of scientific studies about what makes human beings happy or unhappy. "Happiness comes from relationships with others and with oneself, and happiness surpasses knowledge because the latter is a means to the true purpose of human existence: to achieve one's own happiness and that of others" (p. 29). I think that any attempt to exclude any human quality and give greater importance to one over another fails due to its own deterministic and reductionist conception. Happiness is generated from the holistic configuration of the diverse human processes; happiness is achieved from balance, harmony, and coherence in human life. Knowledge is as important as happiness itself, because even knowledge is a powerful potential for human happiness. Marina (2000) isn't referring to happiness but to feelings. In my opinion, happiness is generated from the configuration of knowledge, skills, and feelings.

In one of his works, Morín (2007) refers us to a cognitive imperative formulated more than three centuries ago by Blaise Pascal, which justifies the need to integrate the various topics within a subject and to integrate various subjects: "All things being caused and causing, helped and helpers, mediate and immediate, and all held together by a natural and insensible bond that links the most distant and the most different, I consider it impossible to know the parts without knowing the whole, just as it is impossible to know the whole without knowing the parts" (p. 51). Simmel (2008) had already formulated the same criticism when he pointed out that schools do not guide students through the path of life, they place students in front of a collection of their posts and force them to learn their signs by heart. Traditionally, in school learning, we don't experience the holistic unity of life. We are constructed from isolated, meaningless elements. We don't see the relationships and interconnections between the various concepts, notions, and problems, much less between these and values and skills. The holos has vanished from educational processes; only the parts dance out of rhythm to a music disconnected from the students' environment and context.

This metadisciplinary perspective is important in defining curricular content and demonstrates the need to integrate knowledge, values, and skills into the microcurricular design and in each of the classes we teach. "The supremacy of knowledge fragmented by discipline often prevents the connection between parts and wholes and must give way to a mode of knowledge capable of grasping objects in their contexts, their complexities, their wholes" (Morín, 2001, p. 16). The fragmentation of content causes fissures in the rest of the configurations of the pedagogical process. However, even if the content is not structured interdisciplinarily, a laudable solution could be its integration from a didactic perspective, that is, based on methodological strategies.

Sergiovanni (1994) states that schools should not be considered only as educational organizations but as communities, because changing the metaphor of the school as an educational organization and conceiving it as a community also changes the way of thinking about the school, changes the conception of how schools should be organized and how the educational process should be carried out. And it changes the perception of the school because an educational community is not an uncritical mass of teachers and students who meet by chance, it is not a mechanical and algebraic sum of educational subjects who act in an isolated and random way, an educational community is not made up of people who meet by chance or by isolated interests, it is a human configuration, integrated by teleologically oriented human beings. In other words, we

need teachers "who collectively analyze their progress and norms and theorize about them in order to establish a solid foundation for curriculum and school development in their context" (Simons, 1995, p. 222).

According to Santos (2012), the semantic framework that characterizes the educational organization as a critical learning community is made up of three essential concepts: community, criticism and learning. These categories characterize the school. It is a community insofar as the subjects of education, educational actors, exchange affections, emotions and intellect, their actions are not isolated but teleological, they are oriented towards a common goal, even if they do not explicitly declare it, they share norms declared in a relative manner in school regulations and their daily relationships have a stability that guarantees the denomination of community. The school can be considered a critical community insofar as it has the "reflective and discriminating capacity of knowledge and reality. Science is not aseptic; knowledge is contaminated by perspectives, interests and needs. The critical community is not merely assimilative and transmitting, but elaborates, analyzes and takes a position" (p. 48). The educational organization, as a living, active and dynamic organization does not accept the "tyranny of imposed meaning" (Giroux, 1997, p. 1), as a critical community it configures its own meaning and gives meaning to its pedagogical practices, reflecting this meaning and significance in its macro-curriculum, in its institutional pedagogical model, based on a learning process that is not limited to the cognitive dimension of knowledge, but includes the procedural and attitudinal dimension. The school as a critical community not only learns new concepts, but also skills and abilities, attitudes and values that allow understanding the world in order to transform it. "A critical learning community is able to search for knowledge, to analyze it rigorously and to put it at the service of authentic values in society" (Santos, 2012, p. 48).

On the other hand, Santos (2012) affirms that only the confluence of will, knowledge and power can guarantee that the educational organization develops a process of permanent improvement. These principles are different but at the same time complement each other. The school must want to develop the process of shaping the institutional curriculum, teachers and managers must have the will to carry out this process. If the educational community unites with the desire and interest to improve its pedagogical practices, then the questioning questions and critical reflections emerge from the daily life itself, therefore, the understanding of the educational reality of the school emerges and, as a consequence, the educational process could be transformed. But if the school does not want to improve, then nothing can be done, not even learning, because there is no learning without action, and there is no action without motivation, and if the school is motivated, nothing and no one can stop it, because it will do what it has to do to act, learn, understand and transform by understanding and self-configuring itself.

The knowledge necessary for such change emerges from the will. It is true that improvement cannot be achieved with will alone, because it is necessary to apply the knowledge that serves as a lever for transformation; however, will guarantees learning, knowledge depends on desire, and improvement is achieved if the school develops the process with systematicity, seriousness and passion. Power is an unavoidable principle. The school can want and know, but not be able to, which would affect the harmonious development of the process. Educational management must guarantee spaces for institutional collective learning. Willingness and knowledge are insufficient, action is needed, and managers must promote it so that willingness and knowledge are not isolated, but are integrated into the daily pedagogical activity.

If the process is developed with will, knowledge and transformative action, the school could make decisions that allow for constant improvement, for which it must have the autonomy to take measures derived from its reflections, because if higher structures (district secretariat, departmental secretariat, Ministry of Education) continue to impose legal norms and prescriptions, then there is no point in thinking and reflecting within the schools, and they should dedicate themselves only to applying external guidelines and indications that come from "above".

The organizational curriculum is an event, a becoming, a fluid process; it is not a didactic ontology, but rather a pedagogical hermeneutic. It is an interpretive-comprehensive process through which teachers critically reflect on their pedagogical practices and those of their colleagues. However, "the institutional structures that shape teachers' classroom practices also shape their thinking about those practices" (Elliott, 1993, p. 55). Sometimes, in many schools, teachers lack the space and time for collective reflection, which impedes self-criticism for the purposes of individual and institutional improvement. Undoubtedly, the configuration of the organizational curriculum is a pretext for collective learning within the educational organization and not just a moment whose result is captured in a document. However, this process is not free of obstacles that hinder school learning (Santos, 2012).

New curricular proposals are currently emerging, derived not only from the postulates of the New School movement and active and critical pedagogies, but also from the new interpretations that the findings of neuroscience have been imposing on education over the last 30 years, to the point that we now speak of Neurocurriculum (Ortiz, 2015). This entails designing a curriculum compatible with the functioning of the human brain, taking into account the dialectic generated by the interactions between neuronal and mental processes.

## **7 Conclusion**

The approach to curricular configurations is essential for the operationalization of the curriculum: the formative intentions, characteristics of the curricular contents, conception of methodological strategies, characteristics of the teaching resources and formative assessment.

In one way or another, most of the configurations proposed to structure the institutional curriculum are considered in Latin American educational organizations, but with a different organization, and educational leaders lack arguments to justify the proposed order. Furthermore, their development is not carried out following a strategy with scientific rigor or taking into account the criteria of all educational stakeholders. Instead, only a committee is appointed to design it, and then it is socialized to the rest of the community (sometimes not at all), resulting in most teachers not participating in the development of the curriculum adopted by the organization. Sometimes, a general curriculum is adopted, but no curriculum is developed that is authentic, contextualized, and adapted to the educational reality and needs of the organization. The configurations that are not developed in the curriculum of most organizations are: problems that the student must be able to solve, characteristics of the curricular content, and characteristics of the class in the adopted curriculum. This indicates that pedagogical and training work is developed solely on the basis of content established by each country's Ministry of Education, thereby contributing to the reproduction of the system and cultural capital, accentuating class differences and creating conditions for social exclusion and symbolic violence.

There are three methodological links in curriculum design: design, development, and evaluation. The design link corresponds to the curriculum that educational stakeholders conceive and envision, and the curriculum they desire. The formative approach that educational stakeholders desire and adopt is reflected in the designed curriculum. The dynamic dimension of the curriculum is expressed in the development link, which is nothing more than the formative process in its applied expression, in its execution. Evaluation is the methodological link in the curriculum that provides feedback on the curriculum itself and on the pedagogical practice of teachers.

As can be seen, the dynamic nature of the curriculum implies that assessment is not a final act but rather an influx during the execution of the various steps through which it moves. That is, it emerges from the design and development but is not a specific, static moment in the development process.

In the act of teaching, the intended curriculum (design) comes to life, manifests, and materializes. Therefore, we can say that development is the lived, experienced, and lived curriculum, which also adopts the psychological characteristics

and pedagogical and didactic conceptions of the educational actors. Hence, development is not a stage contiguous with design; rather, it is a link that connects with it, forming a dialectical and complementary pair: when it is designed, it develops, and when it is developed, it is redesigned. This prevents the disproportionate gap between development and design, as sometimes occurs in educational organizations.

Sometimes we see a substantial difference between the lived and thought curriculum, but this happens because we don't live it by thinking it and we don't think by living it, but if teachers live it by thinking it, and we think about it by living it, then both moments merge into a single moment or configurative link.

It is true that the lived educational reality is unpredictable and much richer than the conceived educational reality, but if teachers' pedagogical practice is lived and conceived, and conceived and lived, simultaneously and dialectically, then the boundaries between one methodological moment and another are not perceived. They merge into a single process. However, the curriculum will be relevant and of quality when what they themselves have voluntarily declared themselves to be and do is discernible in the daily lives of educational actors, that is, when harmony and coherence are evident. If teachers practice their pedagogical practice in what they verbally express in their daily reflections, and what they wrote in the curriculum document, then the lived curriculum and the conceived curriculum are one and the same.

Sometimes, an external observer doesn't perceive the curriculum as teachers experience it. For this observer, that perceived process is the visible curriculum, what they observe. There are even curricular processes that are not observed. This is the so-called hidden curriculum.

As can be seen, there are four curricular manifestations: the thought (design), the lived (development), the visible (observation) and the hidden (apperception).

In each of the methodological stages of design, development, and evaluation, the ontological conditions of sensitization, awareness, and motivation must be met. It is important to emphasize that sensitization, awareness, and motivation constitute ontological conditions intertwined with the methodological stages of design, development, and evaluation. In the sense that in each of these three configurative moments, educational actors become sensitized, aware, and motivated, while simultaneously self-training individually and collectively, which is ultimately the intention of the curriculum configuration process: the transformation of the organization through the training of its educational actors. Likewise, synchronization between these methodological stages and the curriculum structure is essential for improving and maintaining the quality of the process and for a dynamic, and sustainable configuration of educational organizations.

The three methodological links are deployed in the configuration of each of the structural configurations of the educational organization's curriculum, which take the form of stages or macro-links, depending on the way in which the educational organization develops the process: sequentially or simultaneously.

This approach to the curriculum as a process, and not merely a document, provides a configurational view of the educational process. Thus, the curriculum is not merely a document, a plan, a program, or a design, but also involves its development and evaluation. It is not only the teacher (designer) who shapes it, but all educational stakeholders, who conceive it, systematically devise it, live it, and evaluate it, in order to understand its practices and contribute to the transformation of the educational organization.

This process is configured through a system of reflective actions developed by educational stakeholders. These actions are not linear or sequential but rather configurative. It is not necessary to initially develop a curriculum development stage, followed by an implementation stage and finally an evaluation stage. The process is not rectilinear but circular. To the extent that teachers reflect on their teaching practices and develop specific curriculum configurations, they also implement these findings and contributions into their daily classes.

The traditional stages of development, implementation, and evaluation are simultaneously integrated into a single configuration process. The design, development, and evaluation of the process constitute a triadic configuration. They are not stages of the process but links, due to the interconnections and interdependencies that exist between them. While teachers are apparently designing a curriculum, they are simultaneously implementing it, and at the same time evaluating their performance and the relevance and coherence of said curriculum for their educational context. Furthermore, curriculum implementation allows them to evaluate it and continue the reconfiguration process. Furthermore, any evaluative or diagnostic action for evaluative purposes carried out by educational actors is simultaneously an action of design and implementation.

These three methodological moments are inseparable. We only separate them theoretically, and from an abstract perspective, in order to study them. However, in teachers' pedagogical practice, it is impossible to separate them. That is why we say they constitute a triadic configuration, and that is why we say they are methodological links. As can be seen, the process of configuring the curriculum, in its structure and dynamics, is a configuration of configurations.

During the process of writing this article, some theoretical reflections were made that support the need and importance of developing and consolidating a curriculum which is both autonomous and authentic, an emerging curriculum: the configuring curriculum.

Some of the content in this article has been used in the training and professional development of teachers and school leaders from various educational organizations in Latin America, in the presentation of papers at national and international conferences, in the development of diploma and postgraduate courses (specialization, master's, and doctoral degrees), and in the reconfiguration of the curriculum of educational organizations in Latin America.

The school is not just the physical space we observe from the outside of the concrete structure. The educational organization is not a static territory; school dynamics are expressed in the interaction between the subjects of education. Educational actors characterize school life and make up what we call the educational organization. A school is not made up of walls but of human beings in constant interaction. An educational organization is an affective configuration of emotions, feelings, attitudes, and values, which exchanges feelings, knowledge, abilities, skills, and wisdom. A school is a feeling-thinking community that acts based on its experiences and behaviors, and is therefore a learning community, a participatory community that transforms itself in the exercise of critique.

The process of configuring the institutional curriculum is not only an event that takes place within the educational organization; it is the very life of the organization and must characterize the daily lives of all educational stakeholders, who must constantly think and reflect on their pedagogical practice. All of the above is embodied in the approach to curricular configurations: educational intentions, curricular content, methodological strategies, teaching resources, and assessment, which materialize, come to life, and are energized in the classroom taught by the teacher. Therefore, it is necessary to explicitly articulate the characteristics of the classroom in the institution's curriculum within the adopted pedagogical approach.

It's important to emphasize that the organizational curriculum isn't just a static document that's created once and then ready for life. It's a process that's constantly evolving and dynamic. It's not just a result, it's not just an end; it's a means to achieving the ideal and the educational goals. It's not a destination; it's a path; it's not a goal to be achieved, but rather a route for the journey toward the institution's collective self-transformation. But it's not a rigid and dogmatic path; it's a flexible one that allows for change and modification due to the unexpected, that accepts and takes into account the improbable and the variations that occur along the way.

It is true that the process of developing and reconfiguring the organizational curriculum activates and energizes the

school's daily life because it acts as a mirror. The school intensifies and strengthens its processes because it wants to resemble the curriculum it itself has configured. It is not the curriculum, but it would like to be, although when it becomes one, the curriculum must be reconfigured, with different demands, higher requirements, and different expectations. When the school perceives itself with an identity similar to that of the curriculum, despite its different status, this indicates that pedagogical practices are on the right track and that the school has achieved the ideal written in the institutional curriculum. However, we believe it is imperative that researchers and teachers develop curricula in our educational organizations, knowing that an organization's curriculum is not a universal instrument, but rather a specific process. It is not even an instrument or tool with which benefits are obtained from its use. It is the very lifeblood of the school, its nourishment and sustenance, the air it breathes in order to live. Without a curriculum, the educational organization does not acquire a pertinent, relevant, and useful dynamic.

Fortunately, we have reached the end of this article. The essence, benefits, and advantages of the main aspects addressed herein lie in the ability of schools to design their own, autonomous curriculum that allows them to guide a coherent, authentic, and expectations-centered learning process. This is invaluable in influencing the way our students feel, think, and act. As can be seen, to be successful in the process of developing an institutional curriculum, it is necessary to eliminate some mental barriers that sometimes limit our understanding of education. Epistemological obstacles paralyze us. To successfully advance this process, it is essential to educate educators.

### **Conflicts of interest**

The author declares no conflicts of interest regarding the publication of this paper.

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