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For a Historical-Cultural Theory of Activity for Active Methodologies

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ABSTRACT – For a Historical-Cultural Theory of Activity for Active Methodologies. Considering the context of higher education in health, a movement of theorization on active teaching-learning methodologies is presented, seeking to organize a Historical-Cultural theoretical framework for overcoming naive views about them. The theoretical-reflective research was based on the framework of the Vygotsky School. Work was considered as a vital activity, the foundation for active methodologies, and the teaching-learning activity was viewed as a dialectical unity organizing the process of teaching and learning. It is a cognitive, transformative, external/internal activity, through which subjects appropriate human objectifications, producing and forging superior modes of operating mentally and acting in the world.
Keywords: **Human Development. Education in Health. Professional Training in Health. Activity Theory.**

RESUMO – Por uma Teoria Histórico-Cultural da Atividade para as Metodologias Ativas. Apresenta-se, a partir do contexto da educação superior em saúde, um movimento de teorização sobre metodologias ativas de ensino-aprendizagem, buscando-se organizar um quadro teórico Histórico-Cultural para a superação de visões ingênuas sobre elas. Realizou-se uma pesquisa teórico-reflexiva pautada pelo marco da Escola de Vigotski. O trabalho foi tomado como atividade vital, fundamento para as metodologias ativas, e a atividade de ensino-aprendizagem como unidade dialética organizadora do processo de ensinar e aprender. Trata-se de atividade cognoscitiva, transformadora, exterior/interior, por meio da qual os sujeitos se apropriam das objetivações humanas, produzindo-se e forjando modos superiores de operar mentalmente e agir no mundo.
Palavras-chave: **Desenvolvimento Humano. Ensino em Saúde. Formação Profissional em Saúde. Teoria da atividade.**

Introduction

Initially, it is important to situate this text in its materiality. The context in which we situate ourselves to problematize the object of study is not just any one: higher education in the field of health interests and concerns us – given our background. More specifically, we are situated in teaching in higher education in health. However, it is worth noting that we believe that the issues addressed in this text affect teachers who work in other settings and contexts, in view of the increased interest in the subject of *active methodologies* in contemporary times.

Returning to our context (higher education in health), we highlight that teaching in this field has a peculiar characteristic: specialized technical knowledge, specific to different disciplines that are at the foundation of several health professions, is valued – and expected from teachers. Accordingly, there is a sort of tacit understanding reinforcing the notion that, in order to be a good teacher *in the* field of health, it is sufficient to be a good professional *of the* field of health. Therefore, health professionals usually become teachers without (or with incipient) previous pedagogical training, which, for not being valued, is also not sought by them, which leads to a certain *learning to be a teacher by being a teacher*, reproducing the dynamics of *learning by doing*.

In general, when the pedagogy of their educational action matters, the pedagogical aspect is reduced to a set of teaching techniques or dynamics, or a certain didactics to teach, which reduces didactics to a set of forms or modes of dynamizing a class, when it is much more than that, since it is a field of knowledge related to teaching and learning with profound theoretical-methodological implications. Consistently, even the continuing education promoted by higher education institutions for teachers in the field of health usually has a technicist nature, adopting more of a training perspective, centered on bureaucratic aspects of teaching – procedures for preparing teaching plans, projects, assessments, etc. –, on teaching methods and on learning assessment techniques, on technological resources, among other similar matters.

Based on that, what moves us is the finding of a *boom* of so-called active teaching-learning methodologies in recent years. Not that such term, or denomination, is novel, as Conterno and Lopes (2013) have argued. However, active methodologies seem to have been raised to the position of maximum innovation, whose non-adoption implies not being modern (in the sense of opposing what is outdated). In this regard, active methodologies (re)arise impregnated with a strong market appeal that links innovation to a diffuse and nebulous idea of quality, especially in times of encouragement to the privatization of higher education and intensification of competition in this segment. In short, we live in times of discredit of what is not innovative and, converting education into a commodity, active methodologies are incorporated into the discourses (and practices) as the great innovation to ensure the quality of higher education, especially in the private sector, but not only in it – it is necessary to note.

This is a subject that has been disseminating in higher education as a whole, although the health area is recognized as pioneering with regard to this *innovation*. Our experiences as teachers and researchers - in a movement that can be understood as participant observation - have shown that active methodologies have been widely advocated and adopted in higher education in health, often in association with naive playfulness – sometimes with outlines of infantilization – and non-directive pedagogical practices, with great potential, from our perspective, to get nowhere, without creating meaning – for both teachers and students. In other words, active methodologies seem to be oriented by practices without whys or wherefores.

This logic has produced, in our opinion, successful experiments at random, since it is not possible to observe that they have been guided by explicit intentionalities and/or based on a solid understanding of the processes through which one learns and, therefore, teaches. It turns out that, in higher education in health, active methodologies have been disseminated as a synonym *for putting the student to do*, while the condition of (the student) being the subject or protagonist of their development as a synonym for *doing alone* (without directivity), and student autonomy as a synonym for initiative and as a consequence of (immediate) knowledge arising from empirical experience, which, as Freire warns us, needs to be overcome:

> Naive curiosity, which undoubtedly results in a certain knowledge, no matter how methodically non-rigorous, is what characterizes common sense. The knowledge made of *pure [empirical] experience*. Thinking right, from the teacher's point of view, implies both respect for common sense in the process of *its necessary overcoming* and respect and encouragement as to the student's creative capacity (Freire, 2016, p. 31, emphasis added, our translation).

In this regard, the author also argues that "The knowledge that spontaneous or almost spontaneous teaching practice, 'unarmed,' indisputably produces is a naive knowledge, a knowledge made of [empirical] experience, which lacks the methodical rigor that characterizes the subject's epistemological curiosity" (Freire, 2016, p. 39, our translation).

As an unfolding, in this context, learning seems to arise under the maxim of *learning to learn* and according to individual possibilities, through a *continuum* of trial and error. It should be noted, at this point, the warning of Duarte (2011), when stating that the motto *learning to learn* operates with teaching-learning processes that prioritize the development of adaptation skills rather than critical analysis and transformation of reality, while valuing form more than knowledge, assuming that there is no time to waste with content loaded with provisionality.

Having outlined the context, some attitudes are observed among teachers in higher education in health as to the central issue addressed

here, related to the apparent inevitability of the adoption of active methodologies. One of such attitudes is that of denial – at least initially –, with commitment toward and intense defense of traditional teaching. On the other hand, it is possible to observe an attitude of adherence *a priori*, even naive, to active methodologies. Certainly, between these two poles, there are also attitudes at different levels of denial and adherence, more or less convinced, as well as there are transit attitudes, most moving from denial to adherence, even due to the social pressure of conviction that the context produces.

Well, it is worth asking, then: after all, can active methodologies – overcoming their fetishization – promote the development of students? We assume so and argue that, for this purpose, the Historical-Cultural Theory of Activity, by Vygotsky et al., based on the historical-dialectical materialist methodological view, constitutes a strong theoretical basis, capable of giving meaning to what can be considered active in active methodologies.

From this theoretical-methodological perspective and, as stated by Moura (2021, p. 15, our translation), in searching "[…] incessantly for concepts that can guide the actions developed in the daily routine of the classroom," it is that, as teachers working in higher education in health, we provoke ourselves with some additional questions: if the methodologies are active, what is activity and what is it to be active? What is the teacher's role in organizing a teaching practice conducted through active methodologies?

Situating it in this context, and posing the questions that motivate it, we intend, within the limits of the text, to present a theoretical-conceptual framework, from a Historical-Cultural perspective, that contributes to overcoming naive views on active methodologies and, at the same time, that supports, through them, the enhancement of teaching and learning processes in higher education in health.

To this end, this text is organized into sections: this section, introductory, followed by a section presenting theoretical-methodological elements to support active methodologies, and a last section in which, considering these elements, we discuss the organization of active teaching and the teachers' role in this process, concluding, then, with some final considerations.

Work: the vital activity of humankind[1] as a psycho-pedagogical foundation for active methodologies

Work is the creative act of production of humankind, the first foundation of humankind. Through and because of work, the human being was made. Work as an objective action, aimed at an end, produces instruments, changes in the relationship of beings with nature in general and with their own nature.

> First of all, work is a process between man and nature, a process in which man, by their own action, mediates, regulates and controls their metabolism with nature. Man

themselves face natural matter as a natural force. They set in motion the natural forces pertaining to their corporeality, arms and legs, head and hand, in order to appropriate natural matter in a form useful to their own life. By acting, by means of this movement, on the nature external to them and by modifying it, they modify, at the same time, their own nature. […]. At the end of the work process, a result is obtained that already existed at the beginning of the work in the imagination of the worker, and therefore ideally. It does not merely effect a transformation of the form of natural matter; it accomplishes, at the same time, in natural matter its aim (Marx, 2020, p. 293, our translation).

Work produces culture, modes of being and living, social rules, social belonging for human collectives. The products or goods of these collectives become cultural heritage to be transmitted by previous generations and appropriated by the younger generations which, through such appropriation, take part in culture, reproduce it and rebuild it to become heritage of generations to come *ad infinitum*. The process of apprehending cultural heritage becomes, over thousands of years of hominization, the essential condition for becoming a human. First work, then language, writes Engels (2020), are the great stimuli that explain the birth of the human, a process that gradually transformed the monkey's brain into a human brain superior in size and perfection (Leontiev, 2004).

The anatomical and physiological changes due to work necessarily entail a global transformation in the organism, given the natural interdependence of the organs. Thus, *the appearance and development of work modify the physical appearance of man* as well as their anatomical and physiological organization. Another element should prepare the appearance of work. In fact, *work could only be born among animals that lived in groups* and presented sufficiently developed forms of *common life*, even if they were still far from the primitive forms of human social life. […]. Finally, another *condition that is necessary for the appearance of work is the existence of very developed forms of psychic reflection of reality* in the higher representatives of the animal world (Leontiev, 2004, p. 79, emphasis added, our translation).

The emphases in this excerpt helps us to understand the meaning of work as a vital activity of humankind. The sphere of the human

[…] is this tiny portion of evolving nature where *consciousness* emerges when individuals strayed from the primate trunk discover that nature exists, that they are part of it, but also that they can transform it, self-determining as *men* (Pino, 2005, p. 17, emphasis added by the author, our translation).

In addition to the meaning and achievements of work as a vital activity, the excerpts provide important pedagogical principles toward thinking and proposing an education that, beyond active methodologies, is based on work, firstly, as a vital activity and, secondly, as an

educational principle. Work appears, in the highlighted excerpts, as an *activity* that happens, in each individual, externally and internally, at the same time and dialectically. It is a collective, socially mediated and mediating activity that modifies the human being in anatomical-physiological terms and is the place of origin and development of complex psychic forms that reflect reality. These are the elements to be considered when we take an individual as an *active subject* and a methodology that puts the subject into *activity*.

Therefore, we do not understand activity as a strategy that puts students in some type of practical or motor action through a theoretical basis. Nor do we see activity as an act of overcoming the theory-practice dichotomy, since this dichotomy is a creation of mechanistic conceptions of human, nature, society. *Activity* is not an action of approximation between theory and practice. *Activity* is praxis, an intentional, reflective, conscious action, which, pedagogically directed, puts in contradictory movements (by the problematization of social practice and historically accumulated knowledge, by the mediation of the *other* and by pedagogical mediation) subjective psychic images of objective reality that mobilize, in students and teachers, complex psychological processes, or superior psychic functions in the Vygotskian sense.

Although we are carriers of a biological structure and, above all, of a biological organ of psychic functioning – the brain –, the complex modes of thought or higher psychological functions are products of social relations. According to Vygotsky (2013, p. 103, emphasis added),

> Podemos formular la ley genética general del desarrollo cultural del siguiente modo: *toda función en el desarrollo cultural de niño aparece en escena dos veces*, en dos planos; primero en el plano social y después en c psicológico, al principio entre los hombres como *categoría interpsíquica y luego en el interior del niño como categoría intrapsíquica*. […] pero el paso, naturalmente, de lo externo a lo interno, modifica el propio proceso, transforma su estructura y funciones. Detrás de todas las funciones superiores y sus relaciones se encuentran genéticamente las relaciones sociales, las auténticas relaciones humanas.

The higher functions of thought are, thus, the products of a dialectical movement of appropriation of human inventions objectified[2] in language, culture, relations and objects. They always begin their development on the interpsychological plane and then become a function of thought, intrapsychological. That is how, according to Vygotsky (2013), we learn and develop complex functions of thought, such as abstraction, generalization, voluntary attention, mediated memory, imagination, creation, theoretical thinking, conceptual elaboration or the ability to operate intellectually by concepts and categories.

The development of these functions is the primary task of school education. It is by mediating such processes in each individual that school education acts for human development, given that, in doing so, it intervenes in the development of modes of operation typical of the human race. In our opinion, adequate mediation for development of

higher functions of thought by means of school education implies some assumptions. First, understanding human beings as a result of social relations, as a semiotic construct of socio-historical origins. Second: assuming mediation by knowledge, understanding that there is no development of theoretical thought without content and without its mastery, which is the ability to operate with this content, producing abstractions and generalizations through appropriation of human objectifications contained in it and transmitted by intentional teaching activity. The students' intellectual development is ultimately determined by the content of the knowledge assimilated by them.

Third, the pedagogical mediation assumption that – more than techniques, strategies or methodologies – understands that what *activates* individuals is that which produces higher functions of thought in them. Therefore, the conception of method - understood as a cognitive path to achieve knowledge - is the great methodological principle that supports a pedagogical mediation committed to human development and that makes teaching a creative activity. In the theoretical parameters assumed here, the historical-dialectical materialist method is the methodological view for pedagogical mediation that, fundamentally, says that the development of analytical thinking (theoretical, praxiological) must be founded on – and also aimed at – the social practice of historically situated human beings. This movement of thought, referenced and anchored in praxis, implies recognizing that human experience is more than the immediate empirical experience. It is a historical, concrete experience, constituted of and constituting the individuals involved in the pedagogical process of teaching and learning. Therefore, it is not a matter of mere approximation between theory and practice or practical application of theory, but of praxis.

> The work of analysis necessarily starts from an immediate perception of the whole, that is, of reality as it is presented. It then penetrates its abstractions and concepts (which are objectified human productions), reconstructing the historical process of formation of this reality to return to the initial point that, now, ceases to be the misunderstood whole of immediate perception to constitute the concept of richly articulated totality (Palangana, 1994, p. 104-105, our translation).

The understanding of these elements makes the teaching profession, committed to the teaching activity, a central element – rather than secondary, as advocated by some liberal education movements that argue in favor of teachers having a role of facilitators in a student-centered education. The teaching activity, from this perspective, corroborating Longarezzi (2014), is how *human activity* is configured in the school context. According to the author,

> The teaching activity is that which creates the conditions for the studying activity. Both, as teaching and learning units, promote the education and development of teachers and students, as they constitute the guiding activities,

> those that direct the development of teachers and students (Longarezzi, 2014, p. 172, our translation).

It is not an authoritarian or centralizing teaching, but a teaching that conducts the pedagogical process aware of its role as mediator of the development of higher functions of thought. It is a teaching that recognizes itself as deliberately intervening pedagogically in the organization of learning processes, which decides cognitive operations to be focused on and selects the concepts, the fundamental theoretical categories for appropriation of knowledge and the mental modes that were made in the historical process of production of that knowledge, now transposed into content activating theoretical forms of intellectual operation. From this perspective, teachers do not facilitate, but mediate, identify and master, to a large extent, the "[...] cultural elements that need to be assimilated by individuals of the human species so they become humans [...]" (Saviani, 2011, p. 13, our translation). Teachers are guided by didactic mastery and by methodological principles that mediate in them the ability to create the objective and subjective conditions that move the subjects in relation in the teaching-learning process toward the appropriation of fundamental knowledge for the objectification of theoretical thinking, the ultimate end of the teaching activity.

In the terms presented, a Historical-Cultural Theory of Activity for active methodologies requires the recognition of at least two fundamental precepts. First: recognizing that activity relates to the creative efforts of human beings. It is the founding element of the human. It is creative work through which reality and human are mutually transformed. Activity is a cognition-affect-volition process that is effected by the mediation of symbolic artifacts (knowledge, language, relation with the *other*...) and material artifacts (concrete historical circumstances that determine the social place of subjects). Second: recognizing school education as time-space historically built with the purpose of mediating humanity in each individual. And, therefore, recognize the school as a place of human development, as a place of constitution of individuality *for itself/themselves[3]*, in the sense given by Duarte (2013). A place intended for teaching, transmitting historically produced knowledge. But, also, a place that employs the content that humanity has produced – philosophy, science, art – as the instrumentalization necessary for the development of complex and sophisticated cognitive processes capable of thinking, on solid bases, the quotidian sphere of life, through the appropriation of the non-quotidian sphere of life (Heller, 1989), which is what the school is responsible for.

This is a task that is accomplished through the mediation of objective, intended teaching, in dialogue with students with their knowledges, histories and needs. That is, we are talking about a school that houses the dialectic relation between teaching activity and studying/learning activity. A school whose centrality lies in the eternal circularity inherent in the knowledge-teaching-learning tripod.

Teaching-Learning Activity: dialectical unity organizing the processes of teaching and learning

> It is necessary that […] it becomes increasingly clear that, although different from each other, one who teaches is trained and re-trained by teaching and one who is taught is educated and educates in being taught. It is in this sense that teaching is not transferring knowledge, contents, nor *educating* is action by which a creative subject gives form, style or soul to an indecisive and accommodated body. There is no teaching without learning, the two explain each other and their subjects, despite the differences that define them, they are not reduced to the condition of objects of each other. One who teaches learns by teaching, and one who learns teaches by learning. […]. Teaching does not exist without learning, and vice versa (Freire, 2016, p. 25, our translation).

In the above excerpt, Freire (2016) explains what he defined as "do-discência," an amalgam of teaching and learning. It is based on this concept that we reaffirm, at this point, that the teaching-learning activity is constituted as a dialectical unity that organizes the processes of human development within the scope of formal education. Through activity, teachers and students are educated at the same time.

If we consider education as defined by Saviani (2011, p. 6, our translation) - as "[…] the act of producing, directly and intentionally, in each individual, the humanity that is produced historically and collectively by all men" -, we can estimate the dimension of responsibility of educational institutions and, in this context, of teachers, who are primarily responsible for organizing teaching-learning processes. In such processes, the contents, forms and subjects involved matter (Galvão; Lavoura; Martins, 2019; Moura, 2016). Therefore, the reflection developed here is centered on the forms (the active methodologies), but it does not dispense with considering the other two elements - contents and subjects.

Thus, what is presented below are considerations that – as intended – contribute to the overcoming of naive views of what can be assumed as active methodologies. To this end, we seek to explain them as a way of organizing the teaching-learning processes in which the subjects of these processes - students and teachers - take the contents as the object of their activity, that is, as that which meets the needs that constitute the reasons for their activity.

Teaching, the work of teachers, is an intentional activity, oriented toward an end. The end is ultimately the production of humanity, which belongs to everyone, in each singular individual. With this end in mind, teachers select relevant contents, which they believe should be appropriated by students to guide their action in the objective reality. These contents are the result of systematization and sequencing of the knowledge accumulated historically by human activity in the world. To appropriate this knowledge means to appropriate the culture and introduce oneself in the human race (Saviani, 2019).

In the case of higher education, for professional training, it can be said that its purpose is to produce, in each singular student, the *professional being* produced historically and collectively by all professional generations in a given field or area, which will be carried out by appropriating the culture of that profession, objectified in its knowledge, its material and symbolic artifacts, its instruments, procedures, social rules, language, modes of being and doing, etc. Teachers, in organizing teaching activities (aiming at learning), take these elements as objects that guide their activity. In addition to contents, teachers select the most appropriate ways for them to be consciously appropriated by students. This means that contents are, at the same time, objects of the teachers' teaching activity and of the students' studying/learning activity. In this procedure, teachers aim to organize the teaching activity, which was triggered by a need – to promote the students' learning in their development process, in this case, mainly (but not only) professional development. Students, driven by the need for learning (the profession), also put themselves into activity – of appropriation of this professional culture, which will lead them to introduction in the corresponding social group.

What is noted, based on Leontiev (2021), is that the teaching-learning activity is always installed in view of a need – for the teacher, to teach; for the student, to learn. Therefore, all activity is triggered by a need and develops directed to an object (material or not) that can meet/satisfy it and that thus constitutes its motivation. In order to meet the need, there is the conduct of actions, understood as processes subordinated to conscious objectives (Leontiev, 2021).

Activity (be it external, interrelational/interpsychic, or internal/cognitive, intrapsychic) has a general macrostructure consisting of needs, objects, motivations, actions/chain of actions and operations (Figure 1).

Figure 1 – Macrostructure of Activity
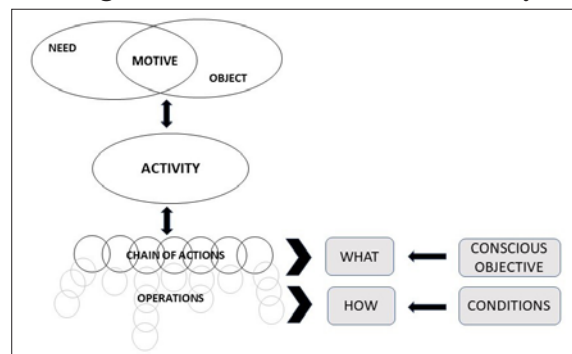
Source: Prepared by the authors based on Leontiev (2021).

Regarding the systemic relation between activity, action/chain of actions and operations, it is reinforced that activity is triggered by a need directed to an object that can meet it and that motivates it, that is, the need is objectified in the object. Therefore, the need-object pair

is the unit constituting the motivation for the activity. To perform this activity, a series of interrelated actions are required, each oriented by a goal. Each action will be performed by a set of operations dependent on the objective conditions in which the subject of the activity is. This means that the motivation can be equated with the notion of general goal of the activity, while the goals guiding the actions that perform it would be the specific goals. In turn, the operations, -the modes of performance of the actions- are not processed at the level of consciousness (Leontiev, 2021):

> An action, by converting into an operation, reduces itself, it can be said, to the position it occupies in the general structure of the activity, but this does not mean that it is simplified. In becoming an operation, it leaves the circles of conscious processes, but retains the general features of a conscious process and, at any time – for example, with a difficulty –, it can become conscious (Leontiev, 2017, p. 81, our translation).

In other words, every operation, when it represents a new process for the subject, arises as a conscious action. As this action is repeated, it is gradually automated, reducing the level of consciousness required, until it is converted into an operation (Santos; Asbahr, 2020).

It is necessary to resume, at this point, the idea that activity takes place on two planes: first, in the interpsychic; then, in the intrapsychic. This means that, first, the activity is external and develops in relation; then, the activity is internal and develops in internalization, in the internalization of the content of the activity. External activity can take place between peers (between students), or between student and teacher, or between student and users and professionals of a health-school service, or between student and authors whose knowledge produced is objectified in the different study materials that the student accesses (books, articles, videos, etc.). Regarding the internalization of the content of the activity, it is the transition to the intrapsychic plane, as a subjective reflection of objective reality, which determines new and advanced modes of action of the student in this reality. This transition occurs through the student's engagement in the teaching-learning activity and implies the development of complex (higher) operations of thought.

Therefore, the new modes of action in reality, originated from the student's participation in teaching-learning activities, develop initially from the external activity, from the dimension of social practice. Subsequently, this activity becomes an internal activity and, in this transition, theoretical concepts and ways of operating with these concepts are internalized, that is, theoretical thinking is developed by appropriating the mental operations contained in the objects of the activity (Moura, 2016).

It turns out that, in the case of professional education, two elements need to be noted. Firstly, as regards social practice. About this, Pino (2005, p. 106-107, emphasis added by the author, our translation) explains that

> A system of social relations is a complex system of *positions* and *roles* associated with these positions, which define how social actors are situated in relation to the others within a given social formation and what behaviors (ways of acting, thinking, speaking and feeling) are expected of them due to these positions. Therefore, social relations are concretized in *social practices*. [...] the 'higher mental functions' translate the way individuals position themselves in relation to others within the system of social relations of a given society and this positioning is concretized in social practices. It is concluded that these functions are constituted in the subject as they participate in the social practices of their cultural group.
> [...] higher mental functions are not simply transposition on the personal [interior] plane of social [exterior] relations, but the *conversion*, on the person's plane, of the significance that these relations have for them, with the positions they occupy in them and the roles or functions that derive from them and concretize in the social practices in which they are participating.

Based on the above, it is deduced the relevance of the collective character of a teaching-learning process organization based on active methodologies, in the sense that here we give to this expression.

The second element to be noted is that, at this educational level, students are predominantly adolescents and adults, whose main activity[4] is study/work. Consequently, professional training processes benefit from a teaching-learning activity organization that relates them to work - vital, creative activity –, taking it as an educational principle.

And how could we illustrate a teaching-learning situation organized from the perspective of an active methodology based on the Historical-Cultural Theory of Activity? Let us take the following example: a teacher who has the need to teach a class of students how to diagnose nutritional status through anthropometric evaluation will select the content relevant to the topic (anthropometric nutritional status and its indicators, anthropometric measures, their meanings, instruments and procedures for collection and analysis/interpretation, etc.). The teacher will take these contents as objects/motivations for his teaching activity. The students, driven by the need to learn to carry out the aforementioned diagnosis, will also take the contents as objects/motivations for their - studying/learning activity.

In the course of the activity, in order to meet such need, actions and operations will be conducted by teachers and students: the former, by mediating the relation between students and contents; the latter, by studying and appropriating the contents. Examples of actions taken by the teacher may include preparation of a lesson plan - presenting justification for teaching such content in view of complying with the National Curricular Guidelines, in line with the principles of the Unified Health System and considering the professional profile to be achieved within the scope of the political-pedagogical project of the program in which they teach-, as well as choice and development of methodological and

evaluative instruments, actions of presentation and problematization of the content, advisory, assessment, etc. (Moura, 2016). If, for example, the teacher adopts the case study as a pedagogical strategy, they will conduct actions to deal with the case, establish evaluation criteria, etc., all aimed at meeting the need to teach the content and each guided by a specific goal. In turn, the operations involved can be systematization of the lesson plan, procedural demonstration of the collection of anthropometric data, observation, monitoring and evaluation of students, etc.

For students, actions can be exemplified by readings, theoretical-practical studies, individual and collective records, group discussions, etc. (Moura, 2016), and operations can refer to the procedural dimension of reading (decoding signs), preparation of abstracts/reviews (use of language), use of instruments (measuring tape, anthropometer, scale, plicometer, calculator, etc.) in carrying out procedures to collect anthropometric data (weight, height, waist circumferences, hips, skinfolds, knee height, etc.) and analyze such data (use of calculator, application of formulas, comparison of data obtained with protocol parameters, etc.). It is emphasized that the operations are dependent on the objective conditions in which the activity is carried out. Thus, students' records, for example, can be made on a computer, if available, or, on the contrary, as manual notes, not changing the operation itself and its purpose (in the set of the activity) and result.

It is noted that the same knowledge can generate several teaching-learning activities (triggering needs, composing motivations, constituting objects of activity), including at subsequent times of the training process. Thus, at an increasing level of complexity, the same content can be the object of study/learning activities within the scope of actions for observation and monitoring, intervention support, supervised intervention, intervention with a *posteriori* supervision, etc., in a process of developing advanced modes of action in reality by internalizing the contents of the activity in the form of scientific concepts, with the complexification of functions of thought.

In this regard, Libâneo (2016, p. 363, our translation) reinforces that

> The teaching activity consists precisely in organizing the study activity so students appropriate scientific notions. The peculiarity of the study activity is the solution of learning problems that modify the way of thinking and acting of the learning subject. It is not a matter of practical solution of a problem, but the internalization of a general mode of action of its solution to be applied to particular and concrete situations, which leads to the development of theoretical-scientific thought. The teaching actions designed to make this path involve tasks that provide the apprehension of the essential relations that characterize the content, the construction of models that favor the identification of these relations, the study of the properties of the content in its pure form (the system of concepts) and exercises of generalization of the essential relations for particular cases.

This means that the teachers' function consists in promoting the development of theoretical thinking by students and that it is their task, from this perspective, to take care of organizing teaching-learning processes that lead these students to engage in studying/learning activities. That is, teachers are responsible for organizing active teaching-learning processes that effectively favor students to appropriate the contents, developing actions and mental functions and starting to operate intellectually with them. As mentioned above, this refers to the mastery of content.

Libâneo (2016, p. 365, emphasis added, our translation) thus details these propositions:

> […] the appropriation of knowledge is always associated with a cognitive activity of students that is equivalent to the cognitive activity employed in the scientific research that resulted in the constitution of the object of knowledge. This assertion indicates that: a) the contents of a teaching subject have embedded in them the mental processes by which they came to be constituted; b) the unveiling of these mental processes is obtained by retracing the investigative path similar to that which originated the object of study and by apprehending the nuclear concept […]; c) this procedure supposes considering the epistemology of the science that is taught, its methods of investigation and the historical development of constitution of its content present in the cultural tradition of society. *Therefore, the contents – concepts, theories, skills, procedures, values – are not valid by themselves, but as a basis for the development of general and specific cognitive capacities, such as analysis, synthesis, testing, comparison, valuation, explanation, problem solving, formulation of hypotheses, classification, among others.*

What we intend to reaffirm here is that good teaching, - truly active teaching, -does not dispense with content, which is corroborated by the statement of Sforni (2004, p. 108, our translation): "[…] scientific concepts, when theoretically appropriate, become cognitive instruments." And the author complements, explaining that instruction represents the way of access to scientific concepts, in a mediated, conscious activity, organized by the teacher, loaded with intentionality. That is, the apprehension of scientific concepts begins with the teaching-learning activity and is directed to the dimension of experience, of the concrete, in a path inverse to the development of spontaneous, everyday concepts, which is based on immediate experience (Sforni, 2004).

Consequently, mastering certain concepts cannot be exhausted in the description of phenomena or objects, which is situated in the sphere of empirical thought. Differently, theoretical thought (thinking by concepts) is developed through instruction, which presents elements for understanding the causal links of knowledge historically produced in the scope of social relations, providing the construction of the intellectual autonomy of students. Accordingly, instruction that operates with

empirical thought leverages mental processes related to observation, comparison, categorization and memorization, having description, definition, and classification as compatible tasks. In active teaching, which operates with theoretical thought, the appropriation of concepts requires their inclusion in teaching-learning activities in which they function as cognitive instruments. Pedagogical organization, then, prioritizes mental processes associated with reflection, analysis and planning, having as compatible task the production of solutions for which the concepts - appropriated consciously in this process - are tools. Thus, in active teaching, the appropriation of concepts, at the same time, promotes and results from the development of higher functions of thought, with teacher mediation (Sforni, 2004).

It is important to point out, in view of the above, that one of the challenges of the organization of active pedagogical processes seems to lie precisely in the constitution of motivations. Within the scope of this issue, it should be mentioned that different motivations -need-object unity - may be implicated in the configuration of the same activity, in a hierarchization logic directly related to the production of meaning (in/by the activity) by the subjects involved (Leontiev, 2004; 2021). Thus, thinking the teaching-learning activity as a dialectical unity organizing the processes of teaching and learning, on an effectively active basis, leads us to highlight some elements, summarized below.

First: the understanding that, if the methodologies are active, the *activity* is cognitive, creative and (self)transformative, it is social, external and internal, and it is through it that subjects consciously appropriate the highest human objectifications, in a process in which the human produces and reproduces itself, developing itself and developing superior modes of operating mentally and acting in reality. Being active means being engaged in this human development movement.

Second: organizing active teaching-learning processes highlights the role of the subjects involved. It is not a matter of centralizing the process on students or teachers, but on the relation between them and on their relationship with knowledge. This education requires that both commit to the teaching-learning activity, with teachers being responsible for planning and conducting the process, which implies awareness of intentionalities and decision-making regarding the contents and forms acccording to the assumed objectives. Students are responsible for engaging in and committing to studying/learning activities, including problematizing and questioning them.

Third: the indispensability of contents, which are the objects of teaching and studying/learning activities and whose mastery promotes the development of subjects and of their ways of acting in the world.

Final Considerations

We believe that the elements presented provide initial answers to the questions that mobilize this reflection. Certainly, these answers can – in the continuation of our studies – be (re)elaborated, verticalized, ex-

panded. At the same time, they produce other questions that still need to be addressed, such as those related to the constitution of motivations that mobilize the students' activity and the assessment of the activity, among others. That is, this research process in which we situate ourselves, and which is our motivation/need, generates actions/objectives, which in turn orient operations that, in the permanent movement of appropriation, subjectivation, production/objectification, also operate in us more complex modes of thought. Therefore, we are in activity, and it is vital for the struggles that have as horizon an education that is effectively transformative and constructive toward another possible world.

In any case, the reflection conducted allows us to affirm that the theoretical-conceptual framework presented, from a Historical-Cultural perspective, contributes to the overcoming of naive views on active methodologies, constituting support for enhancing the teaching and learning processes in higher education in health.

Translated by Roberto Cândido (Tikinet Edição Ltda.)

Notes

1 Humankind as a concept that expresses the "[…] result of the human social history, of the history of the objectifying activity of human beings" (Duarte, 2013, p. 9, our translation).

2 Objectification and appropriation, in dialectical relation, express the "[…] essential dynamics of the self-production of the human being by means of the human vital activity, work. […] objectification can be understood as the process through which the activity of the subject is transformed into properties of the object" and "[…] appropriation refers to the inverse process, that is, to the transfer, to the subject, of the activity that is contained in the object," whether material or immaterial (Duarte, 2013, p. 9, our translation). In the case in which, here, we are interested, -formal educational processes-, it can be said that teachers and students' activities are transmuted, for example, in a class: the former, in their directive role, are objectified in the organization of teaching; while the latter, in their active role, appropriate the knowledge objectified in the contents by their study/learning activity.

3 We take as a reference the reflection of Duarte (2013) on the constitution of human subjectivity. The author takes as a basis the categories of *in itself/themselves* and *for itself/themselves* and argues that we can speak of processes of daily life that reproduce humankind through generic objectivations *in itself/themselves* (learning to speak, to eat, to relate). Through generic objectifications *in itself/themselves*, human beings have produced new and more complex forms (non-quotidian) of relating to nature, which do not have the objective of immediate satisfaction of needs. Such productions, the author calls generic objectifications *for itself/themselves*, among which science, art and philosophy stand out. These objectifications require a greater degree of psychic complexity on the part of those who appropriate them. School education is the advantageous space of appropriation of such objectifications.

4 Main or guiding activity is that through which individuals relate to their social environment, incorporating systems of psychological instruments available in culture into their activities, which leads to psychological development and equips them for life (Leontiev, 2017).

References

CONTERNO, Solange de Fátima Reis; LOPES, Roseli Esquerdo. Inovações do Século Passado: origens dos referenciais pedagógicos na formação profissional em saúde. **Trabalho, Educação e Saúde**, Rio de Janeiro, v. 11, n. 3, p. 503-523, set./dez. 2013.

DUARTE, Newton. **Vigotski e o "aprender a aprender"**: críticas às apropriações neoliberais e pós-modernas da teoria vigotskiana. Campinas: Autores Associados, 2011.

DUARTE, Newton. **A Individualidade para Si**: contribuição a uma teoria histórico-social da formação do indivíduo. Campinas: Autores Associados, 2013.

ENGELS, Friedrich. Sobre o Papel do Trabalho na Transformação do Macaco em Homem (1876). In: FRIGOTTO, Gaudêncio; CIAVATTA, Maria; CALDART, Roseli Salete (Org.). **História, Natureza, Trabalho e Educação –** Karl Marx & Friedrich Engels. São Paulo: Expressão Popular, 2020. P. 421-435.

FREIRE, Paulo. **Pedagogia da Autonomia**. São Paulo: Paz e Terra, 2016.

GALVÃO, Ana Carolina; LAVOURA, Tiago Nicola; MARTINS, Lígia Márcia. **Fundamentos da Didática Histórico-Crítica**. Campinas: Autores Associados, 2019.

HELLER, Agnes. **O Cotidiano e a História**. Rio de Janeiro: Paz e Terra, 1989.

LEONTIEV, Aleksei Nikoláievitch. **O Desenvolvimento do Psiquismo**. São Paulo: Centauro, 2004.

LEONTIEV, Alexis Nikoláievitch. Uma Contribuição à Teoria do Desenvolvimento da Psique Infantl. In: VIGOTSKII, Lev Semenovich; LURIA, Alexander Romanovich; LEONTIEV, Alex Nikoláievitch. **Linguagem, Desenvolvimento e Aprendizagem**. Tradução de Maria da Pena Villalobos. São Paulo: Ícone, 2017. P. 59-83.

LEONTIEV, Aleksei Nikoláievitch. **Atividade, Consciência, Personalidade**. Tradução de Priscila Marques. Bauru: Mireveja, 2021.

LIBÂNEO, José Carlos. A Teoria do Ensino para o Desenvolvimento Humano e o Planejamento de Ensino. **Educativa**, Goiânia, v. 19, n. 2, p. 353-387, maio-ago. 2016.

LONGAREZZI, Andréa Maturano. Contribuição da Teoria da Atividade para a educação escolar. In: CAÇÃO, Maria Izaura; MELLO, Suely Amaral; SILVA, Vanderlei Pinto (Org.). **Educação e Desenvolvimento Humano**: contribuições da abordagem histórico-cultural para a educação escolar. Jundiaí: Paco Editorial, 2014.

MARX, Karl. Processo de Trabalho e Processo de Valorização (1867) – O capital, livro I. In: FRIGOTTO, Gaudêncio; CIAVATTA, Maria; CALDART, Roseli Salete (Org.). **História, Natureza, Trabalho e Educação –** Karl Marx & Friedrich Engels. São Paulo: Expressão Popular, 2020. P. 293-316.

MOURA, Manoel Oriosvaldo (Org.). **A Atividade Pedagógica na teoria Histórico-Cultural**. Campinas: Autores Associados, 2016.

MOURA, Manoel Oriosvaldo. Prefácio. In: LEONTIEV, Aleksei Nikoláievitch. **Atividade, Consciência, Personalidade**. Tradução de Priscila Marques. Bauru: Mireveja, 2021. P. 15-22.

PALANGANA, Isilda Campaner. **Desenvolvimento e Aprendizagem em Piaget e Vygotsky**: a relevância do social. São Paulo: Pléxus, 1994.

PINO, Angel. **As Marcas do Humano**: às origens da constituição cultural da criança na perspectiva de Lev S. Vigotski. São Paulo: Cortez, 2005.

SANTOS, Marília Alves; ASBAHR, Flávia da Silva Ferreira. Teoria da Atividade de A. N. Leontiev: uma síntese a partir de suas principais obras. **Revista Brasileira da Pesquisa Sócio-Histórico-Cultural e da Atividade**, Rio de Janeiro, v. 2, n. 2, p. 1-23, 2020.

SAVIANI, Dermeval. **Pedagogia Histórico-Critica**: primeiras aproximações. Campinas: Autores Associados, 2011.

SAVIANI, Dermeval. **Pedagogia Histórico-Critica, Quadragésimo Ano**: novas aproximações. Campinas: Autores Associados, 2019.

SFORNI, Marta Sueli de Faria. **Aprendizagem Conceitual e Organização do Ensino**: contribuições da teoria da atividade. Araraquara: JM Editora, 2004.

VIGOTSKI, Lev Semenovich. **Historia del Desarrollo de las Funciones Psíquicas Superiores**. Buenos Aires: Colihue, 2013.

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