

## **A pesquisa intervenção mediando o processo de superação dos impactos da pandemia na educação básica**

Intervention research mediating the process of overcoming the impacts of the pandemic on basic education

Investigación intervencionista que media en el proceso de superar los impactos de la pandemia en la educación básica

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### **RESUMO**

O presente artigo teve como objetivo discutir pressupostos teórico-metodológicos que colaborem para a superação de contradições, dificuldades e desvios no que se refere à função da escola decorrentes das contradições geradas na pandemia. Para tanto, destacamos a importância da criação de processos de transformação de educadores por meio da formação intencionalmente crítica. Para dar conta desse objetivo, iniciamos o artigo com uma breve apresentação de aspectos do contexto pandêmico, dando ênfase aos impactos ocorridos na educação. Na sequência discutimos alguns pressupostos teórico-metodológicos do materialismo histórico-dialético, proposta metodológica entendida como base para a construção das principais categorias da psicologia sócio-histórica, perspectiva que também fundamenta a proposta sistematizada neste artigo, a da pesquisa-trans-formação. A discussão realizada argumenta em favor da necessidade de se produzir

conhecimentos que possam orientar o planejamento e o desenvolvimento de práticas e pesquisas que tenham como finalidade colaborar na formação e transformação de educadores, sobretudo em contexto de pós-pandemia.

**Palavras-chave:** Formação de Professores; Pesquisa em Educação; Psicologia Sócio-Histórica.

### ABSTRACT

This article aimed to discuss theoretical-methodological assumptions that contribute to the overcoming of contradictions, difficulties and deviations regarding the function of the school resulting from the contradictions generated in the pandemic. For this reason, we highlighted the importance of creating processes of transformation of educators through intentionally critical training. To accomplish this goal, we began the article with a brief presentation of aspects of the pandemic context, emphasizing the impacts on education. Subsequently, we discussed some theoretical-methodological assumptions of historical-dialectical materialism, a methodological proposal understood as the basis for the construction of the main categories of socio-historical psychology, a perspective that also underlies the proposal systematized in this article, i.e., the transformation research. The discussion held argued in favor of the need to produce knowledge that can guide the planning and development of practices and a research that aims to collaborate in the training and transformation of educators, especially in the context of post-pandemic.

**Keywords:** Teacher training; Research in Education; Socio-historical Psychology.

### RESUMEN

El propósito de este artículo es debatir supuestos teórico-metodológicos que contribuyen a superar las contradicciones, dificultades y desviaciones con respecto a la función de la escuela, resultantes de las contradicciones generadas en la pandemia. Con este fin, destacamos la importancia de crear procesos de transformación para los educadores a través de una formación intencionalmente crítica. Para lograr este objetivo, comenzamos con una breve presentación de aspectos del contexto de la pandemia, haciendo hincapié en los impactos que se produjeron en la educación. A continuación, analizamos algunas suposiciones teóricas-metodológicas del Materialismo Histórico-Dialéctico, una propuesta metodológica que se entiende como la base para la construcción de las principales categorías de psicología sociohistórica, una perspectiva que también corrobora la propuesta sistematizada en este artículo, es decir, la de investigación-transformación. El debate celebrado aboga por la necesidad de producir conocimientos que puedan guiar la planificación y el desarrollo de prácticas e

investigaciones que tengan como objetivo colaborar en la formación y transformación de educadores, especialmente en el contexto de las pospandemias.

**Palabras clave:** Formación del profesor; Investigación educativa; Psicología sociohistórica.

## Introduction

Based on the assumption that the facts and events of social reality are formed and transformed in the dialectical relationship with the social, historical and cultural context in which they are immersed, the educational processes that take place at school also follow its dynamic (Carvalho; Aguiar; Alfredo, 2020). Proof of this is that both the pandemic and post-pandemic contexts have mediated the direction of education, schools, teaching, learning, and other educational processes, as it has managed new needs, imposing challenges to the teaching-learning process, such as, for example, non-face-to-face teaching mediated by digital technologies. One of these challenges is to invest in the training and transformation of educators, based on theoretical-methodological assumptions that make it possible to understand the historical-social and political-institutional aspects of the reality investigated as a multi-determined totality and to develop actions that guide its transformation (Aguiar; Carvalho; Marques, 2020).

Regarding the pandemic context, it is worth highlighting that it is characterized by the impact produced by the outbreak of covid-19, a disease caused by the SARS-CoV-2 virus. In mid-March 2020, the World Health Organization (WHO) declared a public health emergency, which constitutes a pandemic, and the need for legal measures to contain the spread of the disease. Among these measures, there is social distancing, suggested by the WHO and adopted in almost all countries, leading to the closure of almost all sectors of society, including public and private schools and universities.

In Brazil, the Ministry of Education decreed on March 17, 2020, through Ordinance No. 343, the suspension of face-to-face classes in all schools at different levels, stages and teaching modalities, as well as the replacement of face-to-face

classes by non-face-to-face activities in digital media, even though schools, especially those in the public network, did not have the necessary conditions to carry out teaching and learning activities remotely.

In this way, the pandemic context imposed challenges on managers, teachers, students and parents, who began to experience the emergency remote teaching model, mediated by methodologies necessarily supported by digital technologies. If the closure of schools directly affected 1.5 billion students around the world, with the most vulnerable students being the most affected ones (UNESCO, 2022), emergency remote teaching imposed challenges in relation to the uses of digital technologies, making the world aware of social inequality, given that a large proportion of students, especially from public schools, did not have access to the internet or the digital technological resources necessary for remote teaching.

Despite the differences between remote teaching and distance education, we agree with Vieira and Silva's explanation (2020, p. 1015, free translation):

Success in online education depends on many factors that range from the student's profile and motivation for learning, access to internet connection and technological resources, to the training and digital competence of teachers for teaching in this type of teaching.

As the reality of teaching in Brazil notably includes face-to-face mode and digital media are used in few educational spaces, both of these factors were compromised, and the impacts of remote teaching on the teaching and learning process became the subject of discussion in various sectors of society and in the scientific research academy. Thus, from 2020 to 2023, numerous scientific researches were carried out and published, especially in journals, on the impacts of the covid-19 pandemic on basic and higher education.

For United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020a), the great impact of this disease on education worldwide is a crisis characterized by exclusion and educational inequality. In Brazil, studies such as those by Vieira and Silva (2020), Costa (2021), Koslinski and Bartholo (2021), Ribeiro Júnior et al. (2022), Zaim-de-Melo (2022), and Matias et al. (2023), among

others, revealed that the impacts on basic education have a diverse nature and are related to several aspects. Among them, the investigators are unanimous in highlighting the exclusion of a large proportion of students and their parents from access to the internet, the ethical-affective illness of teachers, students and families, work overload, the limits of training and teaching practice for teach in virtual environments, emphasizing teaching methodologies anchored in digital resources.

In relation to the teachers' digital competence for online teaching, research shows that these professionals were not trained to teach through digital information and communication technologies, making the implementation of public policies necessary and urgent for continuing teacher training aimed at providing assistance, in order to guarantee the quality of teaching and learning in basic education schools.

This reflection on the impacts of the covid-19 pandemic on education made us understand the need for governments to develop strategies to mitigate the effects of remote teaching on the teaching and learning process and, thus, guarantee the possibilities of access to school and retention. Among these strategies, we highlight the expansion of access to digital technology resources, and mental health care for teachers and students, particularly the creation of conditions for teachers to appropriate digital technologies. Thus, nowadays, one of the challenges facing all of us, governments, managers and educators, both in the pandemic and post-pandemic context, is the promotion of teacher training processes focused above all on new methodologies. With active teaching and learning methodologies, it is possible to carry out activities that promote innovative and quality teaching (Figueiredo; Oliveira; Felix, 2020).

In this post-pandemic period, characterized by the decrease, on a global scale, in the level of contamination and the gradual return to social activities and, therefore, to face-to-face teaching, the possibilities for planning and developing continuing education courses for teachers have intensified and began to be carried out in different areas, such as the training centers of the state and municipal departments of education and in universities, through teaching, research, and extension activities.

Sharing the idea that continuing education is a process of appropriating new knowledge produced by critical reflection on education, school, teaching and learning, the intervention research project called “covid-19 pandemic and its impacts on basic education in Brazil: diagnosis and intervention proposals at school<sup>1</sup>” aims to know the educational reality that has suffered the impacts of the pandemic and interfere with it, starting from diagnostic research and, subsequently, carrying out training actions that can contribute to overcoming educational gaps and other challenges of schooling in the post-pandemic period. One of the proposed training actions is the training of basic education teachers and has been developed through research carried out in the postgraduate education programs involved with this project. The type of research developed purposes to “understand the training needs of teachers, arising from the experience of the occupation in a pandemic context, in order to propose training processes that overcome these needs.”

To meet the challenge of investing in the educators training, based on theoretical-methodological assumptions that make it possible to understand and transform social reality through research activity, this article aimed to discuss theoretical-methodological assumptions for thinking and carrying out research that collaborate in the transformation of educators.

To achieve this objective and guide the reading of this article, we emphasize that the text is organized in this introduction and in the discussion about the theoretical-methodological challenges of the research process, focusing on the theoretical-methodological assumptions of historical-dialectic materialism and of socio-historical psychology, as well as considerations on the path of transformation.

## **Theoretical-methodological challenges of the research process**

Considering the objective proposed for this article, in this section we discuss, at first, some of the theoretical and methodological assumptions of historical-dialectic materialism and socio-historical psychology that have guided the planning and development of investigations whose social function is to collaborate in the formation

and transformation of educators and, consequently, of education. In the second moment, we discuss other assumptions to explain the path of transformation.

### **The categories of historical-dialectical materialism and socio-historical psychology**

To begin our discussion about facing such challenges, we ask the question: when we do research, what do we want to learn from reality? The immediate answer that emerges is: it depends on the research objectives. This is an essential point, because the researcher needs a research problem and objectives. However, we want to highlight that, even though these points are fundamental, they will be guided by something previous, by an epistemological, ontological, ethical, and methodological perspective. This is because the problem and the research objectives are not neutral, naive. On the contrary, they generate paths, point out positions, developments, and conceptions.

Löwy (1978, p. 19), when criticizing positivist epistemology, for disregarding the historical and social character of science, states:

Every science implies a choice, and in the historical sciences this choice is not a product of chance, but it is in organic relationship with a certain global perspective. The views of the world of social classes condition, therefore, not only the last stage of social scientific research, the interpretation of facts, the formulation of theories, but the very choice of the object of study, the definition of what is essential and accessory, the questions that we ask in reality, in a word, the problem of research (Löwy, 1978, p. 19, free translation).

Thus, we understand that the answer or answers to the research problem should consider as a starting point the need to define some assumptions. With this, we affirm that, otherwise, we run the risk of falling into traps, leading to the objectives not being achieved, or becoming irrelevant for the production of innovative knowledge and committed to its time. Marx (2008) offers an indication of the relevance of a theoretical and methodological framework in the research process when he explains:



The investigation must take hold of the matter, in its details, analyze its different forms of development and examine the intimate connection between them. Only after this work is completed, it is possible to describe adequately the movement of reality. If this is achieved, the life of the researched reality will be mirrored, on an ideal plane, which can give the impression of an a priori construction (Marx, 2008, p. 28, free translation).

That said, we resume the discussion on historical-dialectic materialism to affirm, with Mészáros (2004), our orthodoxy, understood here not as the guardian of traditions, but as a way of guaranteeing the effectiveness of such a theoretical-methodological proposal. We need to be able to grasp reality beyond the layers of ideology, the deceptive appearance, which serves as a screen for understanding the ills and inequalities of the capitalist mode of production. According to the author, as long as the society is capitalist, this method proves to be appropriate.

However, how can we follow this theoretical-methodological path that provides us with the conditions to produce deeper knowledge, more committed to the criticism pointed out by Mészáros (2004) and that moves away from the supposed neutrality?

At this point, we indicate the essentiality of categorical thinking. As Marx (2011, p. 59, free translation) states, categories are constituted as “ways of being, determinations of existence.”

In this context, the movement undertaken by us to produce knowledge, marked by categorical thinking, occurs through the following understanding: “The world of pseudo-concreteness is a chiaroscuro of truth and deception [...]. The phenomenon indicates the essence and, simultaneously, hides it” (Kosik, 1969, p. 18, free translation). In this way, we resort to categories because they are theoretical-methodological intellectual constructs that illuminate the movement of reality, at the same time as they carry its materiality.

The categories guide the interpretation, both of more complex phenomena, which have greater scope and express a moment of greater abstraction, of articulation with the whole, and of less complex phenomena, which, in turn, may even be contained in others, but they can never be seen as stagnant, fixed, non-historical, nor be grasped in their immediacy (Aguiar; Machado, 2016, p. 264, free translation).



This will be the movement undertaken to understand the reality in focus, i.e., the meanings produced by the subjects regarding a given object of study. Why do we base ourselves on meanings?

Vigotski's exhaustive production (2001; 2004) presents us with two categories—sense and meaning—dialectically interconnected and essential for understanding the process of constitution of human thought and, thus, of the subject as a totality. But, before discussing these categories, let us remember, even briefly, some of the author's propositions that allow us to understand the production of senses and meanings. According to Vigotski (2004, p. 480, free translation), “thanks to signs, the psychological structure of the personality is radically transformed, qualitatively acquiring a new character.” Also, we could add that the signs are the raw material for the movement of thought production.

Considering that, we affirm, inspired by Aguiar, Alfredo and Penteado (2020), that semiotic mediation is essential in the constitution of the human being and that it cannot be understood as a phenomenon exclusive to objectivity or subjectivity and that, in this condition, it enables the existence of the ways of being of the historical and singular man, as well as of the social reality.

From Vygotski (2001), we also infer that thought fails; that the totality of thought, which houses units of contraries, is not expressed in words, but it is realized in them.

However, if so, how can we produce an understanding of the subjects' ways of being, i.e., of their thinking, feeling and acting, or, following Vigotsky (2001), understand emotional thought and its hidden face?

Being coherent with the theoretical-methodological perspective, our understanding is that senses and meanings contradictorily refer to something in the material/social world and, due to the historical-dialectic process, are also constitutive of the concreteness of thought. We also dare to affirm that Vigotski (2001) would never have conceived such categories without mastering the notion, typical of the historical-dialectic materialism, of the unity of opposites.

We understand the *meaning* category as a process and product. It refers to the process in which signs constitute thought, as well as to the process of human objectification, which unfolds into a product, into social signs, therefore, dictionaryized and more stable. They are what allow communication between individuals, composing the flow of speech, as well as the flow of thought. However, we cannot forget that such meanings are produced in the dimension of historically constituted subjectivity, i.e., by the singular subject, with all its idiosyncrasies, peculiarities, and its history immersed in social history.

With this in mind, we use Vygotski (2001, p. 465, free translation) when stating that the isolated term, the word, has only one meaning, and “this is nothing more than a power that is performed in the living discourse, in which meaning is only a stone in the edifice of meaning.” According to the author, “the meaning of a word is the sum of all the psychological facts that it awakens in our consciousness. Thus, meaning is always a dynamic, fluid, complex formation, which has several zones of varying stability” (Vygotski, 2001, p. 465, free translation).

Thus, we can affirm that the process of producing meanings is made up of senses, and these senses are unique, individual and historical at the same time. In the same way, the senses contain meanings as an essential element.

This way of understanding the relationship between senses and meanings can generate some confusion about the specificity of each of these concepts. Are they the same? Do they establish a dichotomous relationship by differentiating themselves? The explanation presented, which used the unity of opposites and, as we have already stated, is based on the historical-dialectic materialism, creates the possibility of not falling into dichotomies, nor in the position that equates the categories in question.

The mentioned categories cannot lose their limits, dilute one into the other, as they are different from each other, and this difference is important and must be understood. However, it is also necessary to understand that one does not exist without the other; they constitute each other. This understanding revolutionizes

dichotomizing views, or those that equated such distinct processes, but which are self-constituted.

Considering such reflections, we ask the following question: can we say that the subject, when objectifying himself, reveals meanings? Moreover, does the subject come down to this dimension of meaning? We reiterate that objectifications carry subjectivity and, therefore, those elements that are *sui generis*, characteristic of the subject, their affections, emotions. Then, we ask: in the process of apprehending subjects, do we seek their meanings, or their senses?

We understand that it is impossible to separate these elements, as we have already stated; they make up a unity of opposites. This specific unit we call meanings. It is a category that makes it possible to produce intelligibility about this process—dialectical articulation between senses and meanings—, favoring the understanding of the subject in a more global and non-fragmented way. Based on Vygotsky (2001) and, thus, on the radical denial of dichotomous thinking, we understand that the affective and cognitive dimensions make up a unity, since “behind every thought there is an affective and volitional tendency” (Vygotsky, 2001, p. 479, free translation).

Sharing this Vygotskian idea, i.e., thought is made up of interests, motivations, emotions, and feelings, we have developed investigations to understand the subjects, taking meanings as a starting point, which are seen as our unit of analysis. For such an explanation, as based on Vigotski (2001), the unit of analysis must be the smallest part that contains the properties of the whole. In our case, it is that part that contains elements specific to the research subjects, even initially and in appearance.

However, in order to have a more comprehensive understanding of the meanings category, it is still necessary to highlight its historical character, without running the risk of naturalizing what history has produced. Meanings, as a human production, could never be understood apart from the dialectical historical movement. We thus bring the category historicity, which comes to explain that reality is

movement, always contradictory. As Vygotsky (2020) reminds, historicity refers to the “general dialectic of things.”

Meanings are understood as productions that occur throughout the subjects' historical time, in a non-linear path, driven by contradictions. This must be the movement to be understood and, as Aguiar and Machado (2016, p. 265, free translation) state, “What is” ceases to be the main question and gives way to the question “how it came about,” “how it moves and how it can be transformed.” This intention will be effective, as Lefevbre (1975, p. 21, free translation) states, by “capturing transitions, developments, the internal and necessary connection of the parts with the whole.”

It is, therefore, this categorical thinking that makes possible an understanding of reality that moves us away from economic, mechanistic, linear determinism, from the idea that our subjects' narratives are mere immediate answers to questions asked by the researcher. At this point, it is important to highlight the idea that humans do not maintain immediate relationships with the social environment, but are constituted through multiple mediations. According to Frederico (2013, p. 90, free translation), “dialectic requires that one overcome (deny) immediacy in order to discover its reason for being-as-it-appears.” Before this, we infer an essential orientation present in the analytical process: apprehending the constitutive movement of meanings, i.e., the multiple mediations. To reflect deeper on this statement, it is essential to present another analytical movement, namely, the understanding of the part-whole dialectic.

Even without time/space/conditions to go deeper into the totality category, due to the scope of this article, it is necessary to bring some elements of it, given that we run a great risk of making flawed, distorted analyses, if we do not consider that:

It is entirely possible for someone to correctly understand and describe the main points of a historical event, without being able to understand that same event in *what it really represents, in its true function within the historical set to which it belongs, that is, without understanding it within the unity of the historical process* (Lukács, 2003, p. 83, emphasis added).

Therefore, it is essential to think about the proposition that the meanings produced by the subjects are inserted in a social totality, understood, as Lukács (2003) teaches, as a complex of complexes, so that the meanings produced can only be understood beyond their appearance, as integral parts of this totality.

Each research must make a selection of the totality. So, this part is not something isolated; it is in relationship with other subjects/phenomena included in this totality. However, it is necessary to clarify that the category in question cannot be understood as something abstract, unattainable. It comes to explain that in the movement of analysis, here the meanings of some phenomenon, a first cut is made by delimiting the study object.

In our investigation, several parts of the realities inserted in a social totality—realities of schools localized in different states of the same country—are constituted objectively and subjectively through the capitalist social format. Each school is a complex of relationships inserted in the social totality of their states, inserted in the social totality of Brazil. All these complexes of complexes move through the contradiction of established relationships. One of the main relationships, considered prominent in our research, is the contradiction of the covid-19 pandemic, its consequences and impacts. In this way, it is possible to visualize, in an interpretative analytical movement, a set of mediations specific to the totality in which the phenomenon is inserted and which we see as an important constitutive element.

Based on these mediations, which are considered possible to be understood at this point of the investigation, the part is understood in the light of the totality. With this, we affirm that mediations explain the connections, the transitions of the historical process in the constitution of the phenomenon discussed here. They are the expression of totality, which, when constituting meanings, are reconfigured, transformed into something specific to the historical subject, who, by objectifying them, constitutes other meanings and moves social reality. Then, we state totality is made up of interconstitutive complexes, always in movement, which unfold into constitutive mediations of the meanings in focus.

Considering all of that, we created the possibility, already at the moment of the first contact with the teachers' narratives, to avoid the risk of restricting ourselves to the immediacy contained in such meanings, that is, of taking them detached from the historical process and the totality that constituted them. This favors the unveiling of naturalizing and blaming explanations that hide the contradictions that the process of producing meanings contains.

Having presented these categories, with the intention of explaining how we understand the process of producing knowledge of social reality, we think that we have also explained our conception of man as a historical, social, and individual being at the same time. This subject, producer of meanings, is our research subject.

In this way, these historical subjects, who experience all the mishaps, suffering, lack of conditions and political squeamishness (in the sense of politicking), in the scope of basic education, are the members of the school community, notably teachers, who expose their actions, their search for transformation amid the contradiction generated by the pandemic and post-pandemic contexts.

From the perspective of the method that guides us, we consider these subjects to be active participants in the research, because, bringing here the work category, which also supports us, we understand that educators represent education workers, who fought and have been fighting for transformations in their environment. During the covid-19 pandemic, they were among so many who got sick, among so many who could not resist the productivist pressures imposed by a government that did not consider itself a gravedigger to count the dead bodies.

We start from understanding the meanings of these workers, who represent, in the class struggle, part of the dispossessed, disinherited, active wage workers or the industrial reserve army. The pandemic has exacerbated this inequality, and, through the analysis undertaken here, under the lens of the categories already discussed, the greater intentionality lies in going beyond the apprehension of meanings, collaboratively building strategies with the participating groups, made possible by discussions and training based on critical awareness processes, mediated by theory-practice dialectics, on the path to transformative praxis. As Marx and Engels (1979,

p. 14, free translation) state: “Philosophers limited themselves to interpreting the world in different ways; what matters is transforming it.”

### **The path of Trans-Formation**

To talk about research as a constituting praxis, we begin with a provocation made by Frigotto (2022), originated by another provocation, by Florestan Fernandes:

Para Fernandes, el desafío educacional es tan o más importante que el hambre, porque si los/as oprimidos/as y excluidos/as no perciben las fuerzas sociales que los oprimen, no podrán organizarse para luchar contra esas mismas fuerzas para salir de su condición. [...]

Y esa consciencia, nacida del trabajo productivo y de la lucha política de los trabajadores y de los excluidos, no depende de una educación que obedezca solamente a la fórmula abstracta de la ‘educación para un mundo en cambio’, pero sí de la educación como medio de autoemancipación colectiva de los oprimidos y de conquista del poder por los trabajadores (Frigotto, 2022, p. 20).

We are based on the meanings arising from the statements of the research participants. However, to be consistent with the approach adopted, we have the task of engendering processes of transformation of social reality.

Due to our position as researchers in the field of education, we chose to focus on the educational reality, especially the training of educators, or rather, the possibilities of Trans-Forming of educators. This process happens when we create, in the training-research-transform dialectic, the possibilities of gestating important mediations that prepare us for radical social transformations. We refer to Rosa Luxemburgo (1970, p. 96, free translation), when in her famous “Discourse on Tactics” she calls on workers to “understand the relationship between our final objective and the daily struggle.” Also to Marx (2010, p. 44), when he explains the radicality of our actions, as “being radical means grasping the issue at its root. But the root is, for the human being, the human being himself.”

Along this path, we need to use actions that provoke (evoke to action) the participants of the investigation, understanding research, as Vigotski (2010, p. 69,



free translation) does, as, “at the same time, prerequisite and product, the instrument and the result of the study.” In short, we can understand the research method as a methodological instrument that is also part of the result of the study. The research itself transforms, modifies its strategies dialectically, in the clash with the reality researched.

Research is not static, reality is not static. So, as researchers in the field of dialectics, we have to put our thinking in motion to account for the historical transitions of the phenomenon, historically contemplating what reality is-was-will be. Because, in agreement with Lefebvre (1991, p. 119, free translation), “analyzing a complex reality and reaching its real elements is the same as discovering its moments.”

Thus, we are talking here about the constitution of a becoming that moves away from utopian conceptions about “what will come” or “destiny:” a becoming that is constituted in the mediations that prepare us for radical transformations, according to Rosa Luxemburg and Marx. The process of critical formation engendered from research into this intentionality constitutes one of the mediations “that must precede any future society” (Luxemburgo, 1970, p. 97, free translation). We believe in this social function of research, which is constituted as a struggle, as a praxis in the reality studied.

Once again, Frigotto (2022, p. 20) reminds us that *En “La Sagrada Familia”*, along with Engels, Marx states: “Las ideas no pueden absolutamente nada. Para la ejecución de las ideas son necesarios hombres que pongan en acción una fuerza práctica.”

This is our historical task, our debt to society, our commitment to social transformation: collaborating so that the masses take hold of theory, so that it becomes material power (Marx, 2010, p. 44). Let's start with schools, our research locus, the place that has historically been structurally positioned as an arm of bureaucracy, prioritizing productivist educational processes that bow to the logic of hegemonic ideas. Exclusionary, perverse processes of humanization, self-entrepreneurship, individualizing, biologizing, resilient to everyday oppression. “The

School increasingly assumes its function as an ‘ideological apparatus’ that inculcates ways of thinking, feeling and acting of the dominant classes as a global ‘society’” (Tragtenberg, 1980, p. 54, free translation).

However, it is from this intrinsic contradiction that we can think of inverse, opposite formats, contrary to the dominant current and of domination. Institutionally, we can enforce denial, not in a simplistic way, but dialectical denial, which gives us revolutionary motility. “To do this, it is necessary to counteract critical education. In education, the same movement that produces bureaucratic pedagogy creates conditions for the emergence of an anti-bureaucratic pedagogy” (Tragtenberg, 1980, p. 57, free translation).

Trans-Forming Research is designed along with modalities of action research, training research, collaborative research, among others that presuppose the active participation of the person who researches and works in the field studied, placing him/her on a level beyond the description of the phenomena, “but also as an element of the process of his/her transformation” (Vázquez, 2007, p. 28, free translation).

To achieve this, we use a type of research that enables training that is cognitive and operational. This means that we do not look for pragmatic and tool solutions, definitive answers or recipes. In the movement of seizing information about the questioning we ask this reality, we seek ways to overcome this real status quo—often fossilized—by betting, believing and acting in the practice of transforming the real (Magalhães, 2021, p. 268, free translation).

To fulfill the objectives proposed in the aforementioned research project of the Coordination for the Improvement of Higher Education Personnel in which we participate, we seek to produce information, and not merely collect data, as participants cannot be reduced to just informants from the reality they experience, not even researchers, much less, describers and denouncers of inequities. In addition to this complaint, as Paulo Freire warns us, we want to announce new possibilities, because:

Woe to those who, instead of occasionally visiting tomorrow, the future, through a deep engagement with today, with the here and now, woe to those

who, instead of this constant journey to tomorrow, tie themselves to a past of exploration and routine (Freire, 1988, p. 101, free translation).

In this vein, the dialectic that supports the intention of researching and at the same time training from the perspective of social transformation must pay attention to training processes that develop strategies aimed at the specific reality studied and that contemplate the research horizons. In other words, we talk about processes that contemplate becoming.

It is important to bring up some points that are the basis and the support of these strategies. First of all, the climate established with the group must be one of collaboration, so that participants feel like they are truly participating in the actions, and not mere research objects. This climate is established in the necessary openness to the dialogical process, in which everyone contributes, as everyone has different knowledge and experiences.

According to Tragtenberg (1980, p. 53, free translation), "capitalism, in its development process, separated the creation and transmission of culture from productive life, kidnapped the body of knowledge, whose origin is social." Thus, in this dialogue, it is our duty to make again these possibilities of creation circulate, reappropriating knowledge that has historically been expropriated from teachers. In this emotional-critical re-engagement, we can learn about the neoliberal determinations that populate our teaching practice, leading to the creation of other practices.

Continuing on this, it is important to make it clear, secondly, that in this dialectical method of research we do not dichotomize any of its parts, or rather, we use at all times a dialectical complex that is being formed in praxis—it is also in this movement that "praxis indicates the resources, paths, techniques, theory, method, the moments of return to theory, of reviewing the categories used, of new techniques" (Magalhães, 2021, p. 327, free translation).

A third point to be highlighted, the result of this dialectical path, is the agreement that is collectively established to decide which texts will be discussed, which themes will be considered. Each agreed content must be understood as a

means, and never as a purpose of training—as a means/mediation that contributes to critical training, always with social transformation on the horizon.

Consistent with the historical precariousness of continuing teacher training, the contents developed in the training carried out in this research were constructed collectively and had the intention of the emergence of the new—and let us understand the new here as the critical consciousness that must overcome the naive consciousness (Magalhães, 2021, p. 330, free translation).

Regarding the content of the training, they must have a cognitive-affective character, that is, contribute with important knowledge to the given topic, but which in its form has the ability to emotionally affect the participants, a condition that enables individual qualitative transformations in the collective. Training must have a didactic-pedagogical character, never prescriptive, bringing paths of action in reality, and not ready-made recipes (something that does not exist, but is always expected, as if it were an educational tutorial).

For this reason, the formations of this project encompass a socio-historical conception of human and education: the themes are situated historically, allowing participants to understand how this content is socially intertwined in the history of each person—subjects of knowledge production—, at the same time that they are interconnected in the general dialectic of humanity’s knowledge production. Finally, this training takes place in a practice established by partnerships that aim at collaboration between everyone involved. In our case, we understand that there is a need for closer ties between university and school, enabling the creation of paths for scientific praxis.

As an essential point for training to take place with the necessary engagement and productivity is the creation of research techniques. According to Magalhães (2021, p. 335), it is “creativity in materiality.” Increasingly closer to the reality studied, we understand the need to create different didactic-pedagogical strategies as a training instrument in the research movement. The intention is to increase conventional instruments, creating formats that increasingly enable the saturation of the determinations we seek to understand. In this way, for example, an interview can

acquire more expanded and reflective forms of participation; a discussion group can have intentionally provocative strategies, which bring to light, through the participants' speech, the contradiction that exists in reality. In the end, the idea is to remove people from comfort zones, making them confront their own conceptions, think about alternatives, different ways of critically reflecting on their own practice.

From this process, which is intended, as Vygotski (1995, p. 156) highlights, to be “revolutionary”, which takes place through “dialectical-nature relationships” (Vygotski, 1995, p. 157), our understanding is that a transformative process of psychic functions is configured. In this way, we have a set of meanings that are qualitatively expressive of the research participants' ways of feeling, acting and thinking. Here, we return to the question of the coherence already discussed, i.e., research and transform reality at the same time.

Therefore, it remains for us to present, even briefly, our proposed analysis with a view to producing knowledge. This proposal is in line with the perspectives of historical-dialectic materialism and socio-historical psychology, as well as the entire theoretical-methodological complex that guides the development of research work, as well as each of its intertwined parts.

The essential thing to report is that we cannot abandon, at any point of the process, the categories of the method that guides us, the historical-dialectic materialism. We affirm that we need an information analysis technique that is coherent with this process that has been produced throughout the research. Thus, the analytical procedure adopted, meaning cores (Aguiar; Ozella, 2006; 2013; Aguiar; Soares; Machado, 2015; Aguiar; Aranha; Soares, 2021), allows us to carry out an analysis of meanings that goes beyond pseudoconcreteness, apprehending historicity, its contradictions and mediations. The proposal of the meaning cores implies moments of apprehension of the empirical and its overcoming, deepening, as already announced, the part-whole articulations, producing increasingly deeper explanations, understood by us as those that capture the historical process constitutive of the subjects.

## Final Considerations

From the perspective of historical-dialectic materialism and socio-historical psychology, it is not possible to separate the covid-19 pandemic that we have been through—its social, educational, political, economic consequences—from the political-economic system in which we live, the capitalism, nor the bourgeois episteme forged by the liberal, neoliberal, ultraliberal ideology that we witness uncontrollably exacerbated in many instances of the government, parliament, judiciary, business, commerce, financial system.

Considering this broad and structural configuration is essential to understand the situation constructed by the State and civil society during the pandemic period. Only under and on this framework, on one hand, general, but, on the other one, specific—in the face of all the unusual situations that resurface today—, we can undertake research strategies that are capable of prospecting information for the research project in which we participate and produce knowledge about this strange situation to which all schools in the country were exposed during this tragic period of our history.

Furthermore, with the intention of contributing to teacher training and transformation, it is also necessary to consider that post-pandemic capitalism is another one, different from the one that existed until 2019. It was already metamorphosing when the pandemic came. This situation modified this capitalism in some aspects, but did not destroy it, as its survival mechanisms took advantage of the moment to accelerate economic changes in which the richest could appropriate more wealth to the detriment of the pauperization of a considerable part of the planet's population. The numbers that express this movement are indecent, abominable. Here is not the space to go deeper into this area, but we must highlight it, since it is in this reality and in these phenomena that the contradiction is created to be unveiled in an incessant process of historical and dialectical materialist analysis, under the aegis of transformation processes.

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## Notes

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