

Facing medicalization on the school floor: research, theory and practice

Enfrentando a medicalização no chão da escola:
pesquisa, teoria e prática

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ABSTRACT

This article aims to expose the path developed since the genesis, process and results of an inter-institutional research project that emerged from the demands of the education secretariats of municipalities in Paraná. We highlight the originality characteristic of the research, which involves, from two foundations of Historical-Cultural, theoretical-practical actions in the municipalities, involving different segments of the social organization of the municipalities involved, culminating with different scientific and popular productions demonstrating the unity of research-teaching-extension. We emphasize decision-making and collective studies in the organization. In the theoretical aspect, the deepening of studies on child development from the

RESUMO

Este artigo tem por objetivo expor o percurso desenvolvido desde a gênese, o processo e os resultados de um projeto de pesquisa interinstitucional que surgiu das demandas das secretarias de educação de municípios do Paraná. Destacamos a característica de originalidade da pesquisa devido aos processos que conformaram sua realização, que envolveu, a partir dos fundamentos da psicologia Histórico-Cultural, ações teórico-práticas nos municípios. O trabalho abrangeu diferentes segmentos da organização social dessas cidades, culminando com diferentes produções científicas e de alcance popular, numa demonstração da unidade entre pesquisa-ensino-extensão. Destacamos, na organização, as tomadas de decisão e os estudos coletivos; no aspecto teórico, o aprofundamento nos estudos sobre o desenvolvimento infantil na perspectiva da

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perspective of Historical-Cultural Psychology was based on the continuous observance of not abstracting its theoretical-methodological foundations, that is, historical and dialectical materialism. We will deal with the theoretical-methodological principles studied, in the form and content unit, as articulators of all the actions carried out. Finally, we will present the resonances of this project that still exist in the interior of the municipalities, since when a project that spanned eight years is completed, it is only formally concluded, but its "forming" aspect does not end, which confirms its importance. of educational processes and their results that are not immediately perceptible.

Keywords: Teacher Training. Medicalization. Child Development.

Psicologia Histórico-Cultural, pautados na observância contínua de não abstrair seus fundamentos teórico-metodológicos, ou seja, o materialismo histórico e dialético. Trataremos dos princípios teórico-metodológicos estudados, na unidade forma e conteúdo, como articuladores de todas as ações realizadas. Por fim, apresentaremos as ressonâncias do projeto ainda existentes no interior dos municípios, uma vez que, quando se conclui um projeto que abarcou oito anos, este se finaliza apenas formalmente, pois seu aspecto "formador" não se encerra, o que nos afirma a importância dos processos educativos e seus resultados que não são imediatamente perceptíveis.

Palavras-chave: Formação de Professores. Medicalização. Desenvolvimento Infantil.

1 Introduction

This article has the aim of presenting the genesis, process, and results of an interinstitutional research project that arose from the demands of the departments of education, initially from two municipalities in Paraná, and has been expanded gradually. More than a descriptive text, our challenge is to demonstrate the relationship between text and context, employing the historical and dialectical materialistic method in the exposition, as this was the method that guided us throughout the research.

The research in question formally began after approval by the UEM Institutional Ethics Committee in May 2013. This initial phase, or Phase I, of the research was completed in May 2017. In the same year, we began Phase II, which ended in 2020, in the midst of the COVID-19 pandemic in Brazil. We emphasize the formal aspect because, in effect, the research began earlier, with a request from the departments of education of two municipalities. Psychologists and educators linked to these municipal secretariats approached the authors with concerns related to the number of children medicated with psychotropic drugs in early childhood education and the early grades of

elementary school. After several meetings, we outlined what became a research project that covered several municipalities in Paraná, as we will detail below.

We highlight the characteristic that the research has acquired due to its collective organizational nature. It deviated from the standards normally described in research manuals, as it involved the collection and analysis of quantitative data, theoretical studies with members of the school secretaries, and theoretical-practical actions in the various participating municipalities. The work involved school principals, teachers, and municipal secretaries of health, education, and social assistance, who developed joint actions. The results were also disseminated in various ways, from those aimed at the scientific community to those aimed at the community in general, demonstrating the unity between research, teaching, and extension. Two striking characteristics regarding the organization were decision-making and collective studies. On the theoretical side, we highlight the in-depth studies on child development from the perspective of Historical-Cultural Psychology, based on the continuous observance of not abstracting its theoretical-methodological foundations, that is, historical and dialectical materialism.

We will organize our presentation by explaining in greater detail the genesis, process, and results from Phase I to Phase II of the research. Next, we will address the theoretical and methodological principles studied, in terms of form and content, as articulators of all the actions carried out. Finally, we will present the repercussions of this project still observed within the municipalities, since, when an eight-year project is completed, it is only formally concluded, as its “formative” aspect does not end. This fact confirms the importance of educational processes and their results, which are not always immediately noticeable.

2 Research that doesn't fit into drawers: on the need to articulate the various dimensions of social practice

As explained above, our intention is not merely to describe the research. On the contrary, we want to demonstrate that the activity of producing scientific knowledge has a social purpose. In other words, it is in social reality that the problems to be investigated by researchers are found. Through analysis and theoretical synthesis, they seek to explain phenomena not only to simply confirm their existence but to understand their multiple determinants, so as to be able to intervene, whether in the field of natural sciences or in the field of human and social sciences. The scientific knowledge that is produced must operate this return to social practice; otherwise, it becomes a “dead letter,” according to Saviani (2011).

This historical and dialectical materialist conception of the relationship between the subject who knows and the object to be known is not a mere abstraction, but implies the objectification of human activity in what differentiates us from other animal species: the act of anticipating our actions with a conscious end in mind. Such activity is both individual and collective at the same time. It is individual because each researcher or participant performs specific actions with a defined objective or investigation in mind. However, each of these actions is linked to broader, collective objectives set by the group of participants (IANNI, 2011; NETTO, 2011; SANFELICE, 2008; TONET, 2013).

This is how we developed the research entitled “Retrato da medicalização da infância no Estado do Paraná” (Fase I e II) (*Portrait of the medicalization of childhood in the State of Paraná (Phases I and II)*). Its genesis came from the search for answers by the education departments of the two municipalities, whose members, educators, and psychologists sought out researchers from the Universidade Estadual de Maringá to report a problem they encountered daily in Early Childhood Education Centers and in the early grades of elementary school: the growing number of children diagnosed and medicated with psychotropic drugs. The teams received complaints and concerns from teachers about this phenomenon and did not know whether this number was cause for concern. Similarly, they were

unsure whether these children actually needed such medications to be able to learn or behave better in the classroom.

After this initial contact, we held four meetings to decide that the answers should come from a survey of data on the number of children medicated, their diagnoses, which medical specialists were diagnosing them, which medications and dosages were prescribed, whether there was any other support work for the children or only the prescription of medication, among other questions. Together with the teams, a data collection questionnaire was developed to answer the first question: was the number of children diagnosed and medicated a cause for concern or not? From this first question, it was necessary to move on to a data survey in other regions and to review the national and international literature on this phenomenon.

After the research project was approved by the UEM Institutional Ethics Committee (CAE 06875112.0.0000.0104), the survey was initiated in the two municipalities that would host the research, through training in schools on how to guide and answer parents' questions about the questionnaire, which would be completed at the time of the children's enrollment. This work was monitored and carried out by teams from the municipal departments together with the researchers, as was the entry of data into the Business Intelligence (BI)⁴ program, which enabled the analysis and cross-referencing of data. We held regular meetings to organize both the data collection and the studies, another requirement of the group. Based on these meetings and the existing contacts between educators and psychologists from municipalities in the region, members of departments from other municipalities approached us seeking to participate in the project due to the same concerns. With each year of organization and collection, meetings, and studies, new municipalities joined the project, totaling eleven. Of these, in nine, the collection was carried out by census (Maringá, Paiçandu, Campo Mourão, Rio Bom, Mandaguari, Cambé, Cascavel, Ponta

⁴ Software that assists in organizing and analyzing data.

Grossa, and Cianorte), and in two, by sampling (Londrina and Rolândia). The choice of sampling as the collection methodology in the two municipalities was due to the working conditions in the departments, which could have made collection by census difficult. For this process, schools were randomized for collection in order to ensure a reliable sample.

At the request of the secretariats and because we understood that quantitative data alone did not tell us anything, we needed to delve deeper into the multiple determinants of childhood medicalization. The data obtained in the Early Childhood Education segment, which serves children from zero to five years of age, showed a variation of 0.99% to 1.94% of students medicated with psychotropic drugs, whose percentages by municipality were: Cambé (1.86%), Campo Mourão (1.07%), Cascavel (1.15%), Cianorte (0.82%), Mandaguari (0.99%), Maringá (1.43%), Paiçandu (1.94%), Ponta Grossa (1.2%), and Rio Bom (4.4%), as discussed in Eidt, Tuleski, Franco, Mendonça, Ferracioli, and Bonadio (2020) and Mendonça, Scherrer, Coelho, Tuleski, Franco, Ferracioli, and Pereira (2019).

Regarding the data on elementary school in the nine municipalities where the data was collected by census, we found a variation of 4 to 7% of children medicated with psychotropic drugs in this age group, distributed as follows: Cambé (5.21%), Campo Mourão (6.5%), Cascavel (4%), Cianorte (4.68%), Mandaguari (5.78%), Maringá (7.01%), Paiçandu (5.35%), Ponta Grossa (4.14%), and Rio Bom (5.66%), as discussed by Tuleski, Franco, Mendonça, Ferracioli, and Eidt (2019).

The data showed certain regularities, regardless of the characteristics of the municipalities, whether large or small, with a larger or smaller health and social assistance network, or even with a higher or lower population density, as noted in the Basic Education Development Index (BEDI) or Human Development Index (HDI)⁵. With each collection and cross-referencing, seeking to quantitatively

⁵ The indices mentioned, the Basic Education Development Index (BEDI) and the Human Development Index (HDI), are indicators used to assess the impact of public education and social development policies on Brazilian municipalities. The results of these indices are used to define the criteria for prioritizing technical and financial resources to improve their results. (source: <http://portal.mec.gov.br/conheca-o-ideb>)

capture which diagnosis predominated and which medication was most prescribed, one piece of data was repeated: the predominant diagnosis was Attention Deficit Hyperactivity Disorder (ADHD). However, the most prescribed medication changed in the transition from Early Childhood Education to Elementary School. In the first segment, Risperidone was the most commonly prescribed medication for ADHD, and in the second, Methylphenidate was also the most commonly prescribed medication for ADHD. In addition, there was a wide spectrum of other diagnoses, at lower rates, such as depression, bipolar disorder, anxiety, autism spectrum disorder, among others.

Another factor that caught our attention was that many children were being treated with two to five psychotropic drugs simultaneously, making it necessary to investigate the possible adverse interactions of such combinations. This issue was the subject of a study by Tabuti (2018). The author set out to quantify the number of children enrolled in the first phase of elementary school in a medium-sized municipality in the interior of Paraná who were using two or more controlled medications. The results showed that 87 children were using two or more controlled drugs in combination. Among the children undergoing polypharmacological therapy, 79 were using a combination of two drugs, six children were using a combination of three drugs, and two children were taking five drugs in combination. The therapeutic classes of drugs prescribed in combination for children in the first stage of elementary school in the municipal school system of the municipality surveyed were identified. Among them are anticonvulsants, antipsychotics, stimulants, anxiety medications, and antidepressants.

As this data repeated itself, the need to better understand the side effects and regulations for prescribing these drugs to children became imperative for the group. We invited researchers from the pharmaceutical field to join the project, and they were immediately interested, as they shared the same concerns. The studies conducted at the research meetings dealt with the history and development of ADHD, the side effects of medications prescribed for this disorder and off-label use, as well as child development with a focus

on the development of voluntary attention and voluntary behavior control, identified in the medical literature as symptoms of the most commonly diagnosed disorder in the participating municipalities. Participants in these meetings included members of the secretariats of the municipalities involved, research professors from the universities involved (Universidade Estadual de Maringá - UEM, State University of Londrina - UEL, Universidade Estadual de Ponta Grossa - UEPG, Universidade Estadual do Paraná - UNESPAR, Universidade Estadual do Oeste do Paraná - UNIOESTE), and undergraduate and graduate students. We emphasize that, as the number of municipalities increased, other universities and researchers became part of the project, making it a multi-centered investigation. The debate between the research team and the education and health networks of the various municipalities provided a significant accumulation of knowledge, integrating various areas, such as Medicine, Pharmacy, Psychology, and Pedagogy. This knowledge was systematized in the book “The dark side of the medicalization of childhood: possibilities for coping,” organized by Tuleski and Franco (2019).

The studies conducted over the eight years of the project supported seven discussion forums on childhood medicalization and ADHD, which, in some municipalities, included the participation of school administrators and health and social assistance professionals, as well as the external community. After collecting and systematizing the data in each municipality, meetings and debates to return the data were held by the project team. At the same time, internal actions within the networks were developed by the project participants who were part of them. These collective studies resulted in further research in different master's theses (COLAÇO, 2016; LUCENA, 2016; TABUTI, 2018; VIEIRA, 2019; NIERO, 2017) and doctoral theses (FERRACIOLI, 2018; SCHERER, 2019). The results of this research were shared with the group and with members of the secretariats, supporting studies and actions in the networks. In addition, scientific articles were produced (EIDT, TULESKI, and FRANCO, 2014; SANTOS, TULESKI, and FRANCO, 2016; TULESKI, FRANCO, MENDONÇA, FERRACIOLI, and

EIDT, 2019; FRANCO, MENDONÇA, and TULESKI, 2020; ABRANTES and EIDT, 2019) and book chapters (EIDT, TULESKI, FRANCO, MENDONÇA, FERRACIOLI, and BONADIO, 2020; FERRACIOLI, 2020; SANTOS, MACHADO, FORNAZARO, BELTRAME, SILVA, TEIXEIRA, PENTEADO, and FRANCO, 2020; FERRACIOLI, CASTRO, RIBEIRO, JENSEN, GUILOUSKI, and NASCIMENTO, 2020; FRANCO, ALVES, and MENDONÇA, 2019; TULESKI, FRANCO, MENDONÇA, PEREIRA, EIDT, and FERRACIOLI, 2019; TULESKI and FRANCO, 2019a; PASQUALINI and EIDT, 2019) and organized collections discussing the topic, such as Tuleski and Franco (2019b) and Tuleski, Franco, and Mendonça (2021). The objective of these works was to return the knowledge produced to the scientific community as a way to support the initial and continuing training of teachers and health professionals.

Unfortunately, the COVID-19 pandemic prevented the project from ending as we had envisioned, with the organization of an event to discuss the topic, integrating the various municipalities and the entire community. Due to the pandemic, we had to suspend in-person activities, such as meetings, but we continued with the proposal we had started to develop a booklet for teacher training and parental guidance on the medicalization of childhood. This material was developed with the participation of undergraduate and graduate students, researchers, and members of the departments of education, and was published in 2021 under the title “Guidelines for parents and teachers on the medicalization of childhood: develop rather than medicate” (TULESKI, FRANCO, and MENDONÇA, 2021). It is available as a free e-book, promoting discussions on child development and the medicalization of childhood.

This journey undertaken by the project emphasizes the integration between teaching, research, and outreach, which is the ultimate goal of public universities. It demonstrates the importance of ensuring that scientific knowledge is not isolated from the community, especially the working class. It challenges us to think of effective means and mechanisms for approaching the community in general, not merely for propaganda purposes, but for effective education. This project is a

possible answer to the main question that should guide us as researchers: how can the scientific knowledge we produce help us understand social reality and, above all, face the problems that plague our daily lives? But not just any scientific knowledge, such as that which is called “neutral,” but rather that which serves the interests of the working class, which meets its needs, which moves and merges in the direction of humanization against the barbarization of life.

3 Theoretical foundations are the cornerstones of practice: how a historical and cultural understanding of development enables us to confront the medicalization of childhood

Based on the needs that had been identified, the members of the aforementioned research project conducted studies based on historical-cultural psychology. How does this theoretical framework help us to understand reality? This framework provides explanations about the development of the psyche that allow us to analyze data beyond the appearance of the phenomenon and advance our understanding of its multiple relationships. Understanding the theoretical and methodological principles helped us to consider some determinants and formulate the defense of some theses presented in various publications by the group, which we will present below.

The first thesis (VYGOTSKI, 2000; 2001) is that human development is not derived solely from biological maturation. It is characterized as socially conditioned development (EIDT, TULESKI, and FRANCO, 2014; TULESKI and FRANCO, 2019b; TULESKI, FRANCO, MENDONÇA, FERRACIOLI, and EIDT, 2019; ABRANTES and EIDT, 2019; FRANCO, ALVES, and MENDONÇA, 2019; LUCENA, 2019; VIEIRA and TULESKI, 2019). To understand child psychic development, we start from the assumption that the most complex (superior) psychic functions follow the law of internalization formulated by Vygotsky, which works here, that is, they are initially shared between people, between adults and children, and are therefore inter-psychic, and only after the process of appropriation do they become intra-psychic. By another logic, when we conceive of children's psychic development as natural, eminently biological, that is, when we

do not understand the child as a “social being” from birth, there is room for the pathologization and consequent medicalization of any change that occurs in their development, taking it as individual/biological. We emphasize that voluntary attention and self-regulation of behavior—behavior that is not impulsive, but mediated by verbal thought—are part of the higher psychic functions, resulting from a socially shared process.

The second thesis presented in our studies points out that higher psychological functions—among them voluntary attention and voluntary behavior control, which, when not developed, are taken as “symptoms” of ADHD—are the product of practical-verbal interaction with adults, that is, they derive from well-organized extra- and intra-school educational processes. In this discussion, Ferracioli (2018, 2019) states that in school, the development of voluntary attention occurs in and through student activity, through teaching tasks planned and executed by the teacher, aiming at the process of internalization of signs by the student. The signs begin to internally mediate their attention, making it increasingly self-controlled for reasons related to their studies. Ferracioli (2018, 2019) further explains that, with the progressive self-control of attention, students renounce the need for someone to help them direct their attention because they are able to ignore almost all attractive internal and external stimuli in order to complete the proposed task. In this regard, the study of the cultural development process of voluntary attention allows us to understand that, even under adequate teaching conditions, children in the early grades of elementary school have not yet reached this level of attentional development (TULESKI, FRANCO, MENDONÇA, FERRACIOLI, and EIDT, 2019; TULESKI and FRANCO, 2019a).

Moving on to the third thesis defended by the group of authors who participated in the project, we affirm, supported by the assumptions of Historical-Cultural Psychology, that Higher Psychic Functions cannot be treated separately, since they are articulated in interfunctional systems that change throughout life through activity, which connects the child to the social world. When analyzing the contributions of Vygotsky (2000; 2001), Luria

(1986), and Leontiev (1978) to understand psychic development as a material/ideal unit, Niero and Franco (2019) highlight the authors' understanding by presenting it as an interfunctional, procedural system built from materiality. Typically human functions—sensation, perception, attention, memory, language, thought, imagination, emotion, and feeling—are constructed in and through activities and mediation. This system is an assemblage, meaning that no function can be analyzed in isolation.

The need to organize teaching activities in accordance with dominant activities (guides) contributes significantly to the formation of more complex attention processes. This is another thesis derived from the entire research process. The concepts of guide activities (Leontiev, 1978) and the organization of teaching activities (Davidov, 1988), based on Historical - cultural Theory, emphatically corroborate the thesis put forward by Vygotsky (1998) that “properly organized teaching promotes psychic development” and restore to the role of teaching the possibilities of psychic formation and, to the teacher, the work of producing humanity in their students. Such studies allowed participants to consolidate paths that lead to qualified teacher training, improve the processes of planning didactic action, and adequately monitor the psychic development of students, work that is being developed in new research, even though it operates through the contradictions that exist within bourgeois education.

Last but not least, we emphasize that psychotropic drugs and amphetamines—Risperidone in preschool children and Methylphenidate in elementary school children—rather than promoting development, alter the functioning of the central nervous system (CNS). If there was no change before their use, there will be one afterward, which can make children dependent on these or other drugs for the rest of their lives. This thesis is supported by studies by Campos and Sant'tana (2019), Tabuti (2018), Sanches, Zoia, Matos, and Coelho (2019), and Colaço (2019). As for Risperidone, from the antipsychotic class, the authors state that it is a substance that has the function of modifying mental processes, causing physical or psychological dependence, whose

prescription for ADHD is part of the off-label use of the medication, which is even more concerning due to its use in young children in early childhood education. Regarding methylphenidate, the same authors point out that this drug acts directly on the CNS and its mechanism of action, like other stimulants (including cocaine), uses dopaminergic synaptic changes, which leads to the assertion by groups of researchers that there is a potential risk of prolonged use of this drug causing dependence.

4 Considering the resonances by way of conclusion

The insights produced in the course of the work on the medicalization of childhood point to safe paths for school grounds. Promoting developmental education, based on the understanding that our psyche is restructured as we appropriate meaningful social experiences, has guided and continues to guide possibilities for addressing the complex act of education in the schools we currently have, but moving toward the schools we ultimately desire.

Throughout 2020 and 2021, the COVID-19 pandemic has had a significant impact on schools. Now that the health-related recess in school activities has ended, schools are gradually welcoming back their students and seeking to monitor the impacts of the absence of systematic in-person educational work in classrooms. Many children have directly felt the absence of effective educational support; that is, they have been cared for at home in conditions that are far removed from what we call teaching activities.

The release of the educational material “Orientação a pais e professores sobre a medicalização da infância (*Guidance for parents and teachers on childhood medicalization*)” (TULESKI, FRANCO, and MENDONÇA, 2021) in June 2021 revisited issues that were already being addressed and studied, reigniting questions about psychological development in childhood. The data pointing to the use of psychoactive drugs as a way to control children's behavior, which is active in their development, once again became a concern for educational networks. Confronting the medicalization issue indicates that the legacy of this work remains active and vibrant. Questions and complaints

such as “Has my student unlearned?”; “I can’t get them to sit still”; and “All they care about is television and cell phones” are examples of requests for help.

The secretaries of education requested support from the project's working group, which has become a reference point, in order to resume discussions with teachers and parents about the published material. These discussions revisit the issue of child development, the assessment of development, and the need to rethink the ways in which school complaints are addressed in order to think about students in concrete terms, as a synthesis of multiple determinants. This oft-repeated and rarely understood phrase means that we cannot abstract children, including us teachers, from the sociocultural context in which we live. Currently, this context is aggravated by the economic crisis, compounded by the health and political crises, with repercussions in the areas of physical and mental health, the effects of which will become apparent in this gradual return to school, in closer, non-virtual contact with classmates and teachers. Considering this complexity, listening to and welcoming the demands, several remote events were produced to meet them.

In the institutional field, some of the researchers joined the extension work coordinated by Dr. Alessandra Wihby Fernandes, who works with CAE-UEM – Coordination of Support for Early Childhood, Elementary, Secondary, and Special Education, linked to PEC – Dean of Extension and Culture, entitled Multidisciplinary Advisory Group to Municipal Education Secretariats (317/2021 PEC-CAE). This group was formed in 2020 with the objective of working in teacher training and the organization of teaching, aiming to structure actions that would meet the demands of various municipalities in Paraná since last year, with the institutionalization of Emergency Remote Teaching, and now, in 2021, providing theoretical and methodological support to teaching activities in the reinstatement of classes in a hybrid and/or in-person format.

Work related to the theses postulated in this text continues to be produced primarily in Special Education, Early Childhood Education, and the early stages of elementary school. Current demands refer to the development of dominant/guiding activities for children in Early Childhood Education

(direct emotional communication, object manipulation, and symbolic play), given the impact of isolation on the psychological functioning of this segment of education. There has been an increase in complaints about Autism Spectrum Disorder, ADHD and an emphasis on psycho-educational assessment. The heart of the matter is to problematize psychic development in such adverse conditions without resorting to pathologization but rather highlighting the actual level of development achieved in the concrete conditions experienced by each child, in order to consider the potential level, that at which teaching can effectively consolidate new psychic formations, as Vygotsky (1996, 2018) guides us.

With regard to the early grades of elementary school, the demands are closely related to the school processes of learning written language, mathematical knowledge, and other areas of human knowledge. Issues such as school learning time, teaching organization, recovery of mental processes inhibited by educational inactivity, associated with the productivity of public policies, the reorganization of support for teaching activities, the reception of children, and the centrality of clinical diagnostic reports put pressure on municipal systems that seek to understand human development in its entirety.

Although this problem is historical in the educational process, it is accentuated by the return to in-person classes in the pandemic context. We emphasize that the initial research project, which lasted eight years and has now been completed, has now unfolded into extension activities that seek to provide theoretical and methodological support, considering school demands in the pandemic and post-pandemic context from the perspective of Historical-Cultural Psychology. In this extension activity with CAE, we serve municipalities that were part of the research project and many others in the state of Paraná, some of whose professors are now beginning to study child development from the perspective of Historical-Cultural Psychology.

We therefore reiterate the need to support municipalities with the knowledge that will enable them to overcome the current situation, joining forces with undergraduate students who work as interns and also postgraduate students who are actively involved in continuing training. The

close link between teaching, research, and extension, the three pillars of public universities, allows the relationship between the problematization of reality, the production of knowledge in research, and its meaningful application in the education system itself to expand the possibilities for confronting and resisting the dismantling and precariousness of education for the children of the working class, who, as a general rule, suffer the consequences of the medicalization of life and childhood.

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Received in October 2021.

Accepted in December 2021.