

**THE RESEARCH TRAINING IN EARLY CHILDHOOD EDUCATION:
FOUNDATIONS AND PRINCIPLES¹**

***A PESQUISA FORMAÇÃO NA EDUCAÇÃO INFANTIL: FUNDAMENTOS E
PRINCÍPIOS***

***FORMACIÓN DE INVESTIGACIÓN EN EDUCACIÓN INFANTIL: FUNDAMENTOS
Y PRINCIPIO***

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ABSTRACT: The ideas presented in this article are related to the foundations and principles of the research training as a research modality. The question that leads the discussion undertaken is: which ways and possibilities of carrying out the research training with Early Childhood Education teachers for having the human training as a base? To produce information that could create conditions to clarify the constitutive processes of the pedagogical practice of Early Childhood Education mediated by the playing practice, study object of doctoral thesis, a methodological path was developed based on Dialectic Historical Materialism and on the Historical and Cultural psychology. Based on these foundations, we have defined as principles: Critical reflection on the practice with its theoretical foundations; Analysis of training needs as mediation for the critical reflection and condition for the professional development; Creation of situations of contradiction for the production of joyful affections about the training and about the practice development; Production of what is new on the practice development.

KEYWORDS: Research training. Human training. Early childhood education.

RESUMO: *As ideias apresentadas neste artigo estão relacionadas aos fundamentos e princípios da pesquisa formação como modalidade de pesquisa. A questão que orienta a discussão empreendida é: quais os caminhos e possibilidades de realização da pesquisa formação com professoras da Educação Infantil ao se ter como fundamento a formação humana? Para produzir informações que criassem condições de explicitar os processos constitutivos da prática pedagógica da Educação Infantil mediada pelo brincar, objeto de estudo de tese de doutorado, foi desenvolvido um percurso metodológico com fundamento no Materialismo Histórico-Dialético e na Psicologia Histórico-Cultural. Com base nesses fundamentos, definimos como princípios: Reflexão crítica sobre a prática com seus fundamentos teóricos; Análise de necessidades formativas como mediação para reflexão*

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crítica e condição para o desenvolvimento profissional; Criação de situações de contradição para produção de afetos alegres sobre a formação e sobre o desenvolvimento da prática; Produção do novo sobre o desenvolvimento da prática.

PALAVRAS-CHAVE: *Pesquisa formação. Formação humana. Educação infantil.*

RESUMEN: *Las ideas presentadas en este artículo están relacionadas con los fundamentos y principios de la capacitación en investigación como modalidad de investigación. La pregunta que guía la discusión emprendida es: ¿cuáles son las formas y posibilidades de llevar a cabo una capacitación en investigación con maestros de educación infantil basada en la formación humana? Para producir información que permita aclarar los procesos constitutivos de la práctica pedagógica de la educación de la primera infancia mediada por el juego, objeto de un estudio de tesis doctoral, se desarrolló un curso metodológico basado en el materialismo dialéctico histórico y la psicología histórico-cultural. En base a estos fundamentos, definimos como principios: Reflexión crítica sobre la práctica con sus fundamentos teóricos; Análisis de las necesidades formativas como mediación para la reflexión crítica y la condición para el desarrollo profesional; Creación de situaciones contradictorias para la producción de afectos felices en la formación y el desarrollo de la práctica; Producción de lo nuevo sobre el desarrollo de la práctica.*

PALABRAS CLAVE: *Formación en investigación. Formación humana. Educación infantil.*

Introductory notes

We began the discussion on research formation by emphasizing that for the production of scientific knowledge, as Afanasiev (1982) explains, ideas, notions, judgments that need to evolve to become scientific theory are elaborated:

In the process of realizing the idea and during the research, notions, images, judgments are born that materialize the idea, incarnate it in scientific theses, conclusions and laws that, after being verified by practice, finally form in its whole and unity a scientific theory (AFANASIEV, 1982, p. 167, our translation).

In the course of research, the researcher is required to organize paths that make it possible to reach the concrete thought. This concrete that constitutes the investigated reality is a synthesis of multiple determinations, and to be unveiled it needs to have as its principle the movement of life, the constitution of being.

The reality that is manifested in its appearance, in formation research, is investigated, because we seek to reach its essence, which is not reached by mechanistic, pragmatic, deterministic research, but by research based on the understanding of the reality constituted by its laws, with the explanation of its internal connections, in reality formed by

contradictions that affect the subjects and generate transformation, in totality as a contradiction and in contradiction as totality (KOSIK, 1976). Following this logic, the formation research we carried out constituted a revealing process of the multiple determinations of the pedagogical practice of Early Childhood Education mediated by play.

In order to meet the multiple determinations of pedagogical practice, the formation research that was carried out, based on Historical-Dialectical Materialism and Historical-Cultural Psychology, is also justified by the fact that it seeks to know the development of the human psyche in dialectical relationship of the individual with objective and subjective reality.

Thus, we explain that the process of conducting research in Brazil and other countries has shown changes in the form of development. Research based on dialectical logic is research that breaks with the consideration of having a qualitative or quantitative approach (FERNANDES, 2017; IBIAPINA, 2010; MARQUES, 2014; SINGULANI, 2016; TEIXEIRA, 2014). This occurs when the relationship between the constituent aspects of reality is considered in order to produce knowledge that goes beyond appearance.

The change we are referring to was made possible by the theoretical-methodological basis that underlies the works mentioned above, because the logic followed is that quantitative and qualitative aspects are in constant relationship, imprinting changes and transformations in reality. It is from this relationship, expressed in the law of dialectics, of the transformation of quantity into quality (LEFEBVRE, 1975) that we found the foundation for the formation research carried out.

Another factor that has been questioned and shows changes refers to the types of research methodology. During the 1960s to 1990s, the process of teacher education began to consider the school and education professionals only as an object of research (GATTI; BARRETO, 2009). In a subdivision of work, as explained by Marx (1996), which characterizes the various stages of development of capitalist society, the researcher became a professional, and the researched teacher another. This demarcates many research, in which the researcher produces data about the object of study and the researched person is only responsible for providing this data. This form ends up determining relationships between them that are dichotomized, with different activities being carried out.

But both are professors and must have research as a constitutive principle of their work. This implies formative processes for the teacher who carries out formation research as a producer of a scientific report and for the teacher who also carries out formation research, but

with the aim of developing pedagogical practice. Convergence resides in the professional development of the teacher/researcher and the teachers/researched.

Formation research as a research modality aims to create conditions for knowledge and transformation of pedagogical practice through critical reflection. The movement followed was to address what we understand by research and formation, why to carry out this type of research, and also how the formation of Early Childhood Education was constituted. And, to single out and particularize the formation research developed, we present its constitutive principles to create conditions for participants to critically reflect on pedagogical practice with a view to professional development. We also cite other ways to carry out formation research with the other names adopted (ALVORADA PRADA, 2012; FREIRE, 1987, 1977; GATTI; BARRETTO; ANDRÉ; ALMEIDA, 2019; IBIAPINA; BANDEIRA; ARAUJO, 2016; MORIN, 2004). In the next section, we deal with the understanding of formation research as a research modality aimed at the professional development of those involved in the process.

The formation research and the process of human formation: study and reflection on the fundamentals of the pedagogical practice of Early Childhood Education

Based on research as a constitutive principle of the teaching activity, we use formation research as a research modality that carries out formation and knowledge production activities in an interdependent manner, in which formation guides the production of data, and these explain formative needs that guide studies of formation.

The proposal developed is based on the totality, expressed in the concrete reality that constitutes the researcher teacher, who has a research project to be developed at the doctoral level, and the participating teachers in the research, who have formation as a mediation for the development of pedagogical practice.

The understanding of formation and research is as activities that mediate professional development. The issue that we must clarify is the explicit understanding of these activities as a unit that comprises the objectivity/subjectivity relationship in the production of knowledge. The unit dealt with in the formation research is crucial for professional development as it seeks to produce new relationships for teachers with knowledge about child development and about playing, with the pedagogical practice carried out and with the requirements of the Municipal Department of Education from Teresina/PI.

Thus, the formation research that we present as part of Martins' thesis report (2019), aimed to mediate the professional development of participating teachers, anchored in the study and writing actions on the formative process, as a need for a formation that aims at critical reflection on pedagogical practice.

Research is a human activity for the production of culture, and when this is related to the development of scientific knowledge, it requires rigor, systematization and foundation on a theoretical basis. Therefore, this human activity, in carrying out pedagogical practice, aims to develop reflective critical thinking. Reflexivity is defined as a process that culminates in the rebuilding of practices, first at the level of thought movement and then in action in the world.

Based on this research understanding, the formation we are dealing with is the one that humanizes. Like Vieira Pinto (2010) and Saviani (2012), we understand that formation takes place through education, and it is justified to speak of education to humanize when Saviani (2012) reiterates the existence of education that dehumanizes when it deforms the human being. The formation research is justified in the fight for a formative, humanizing education. And Marx (2010) corroborates by emphasizing that human formation occurs through the historical process of objectifying humankind and its life as a social being.

Formation research is a type of research that aims to expand the humanization process through critical reflection on educational practices, whether pedagogical or teaching, and the theories that underlie them. As for the humanization process, we relate to what Politzer (1970) emphasizes when dealing with the struggle against capitalism, considering that, in order to humanize ourselves, we need to fight what dehumanizes us, because reality is dialectical. We do this when we carry out research and formation as constitutive activities of the humanization process.

The ideas of Freire (1987) when dealing with humanization/dehumanization corroborate with this perspective of relating formation research with the process of humanization. The author emphasizes that:

Realizing this concern indisputably implies recognizing dehumanization, not only as ontological viability, but as a historical reality. It is also, and perhaps, above all, from this painful realization that men ask themselves about the other viability – that of their humanization (FREIRE, 1987, p. 40, our translation).

Humanization and dehumanization, in Freire's perspective, are implied by the incessant search of human beings for knowledge, by its incompleteness, by de-alienation, by

the formation of beings for themselves, as explained by Duarte (2013). The contradiction between humanization and dehumanization generates the movement of thought, the comings and goings of the questions we ask ourselves about the reality in which we act as professionals and in which we want to bring about changes with a view to formation for humanization.

In this logic, Child School teachers, as they struggle to overcome biologizing practices and mere schooling (LAZARETTI, 2013), are seeking to combat the inhumane in the education of children. And we can create possibilities for the teacher to critically reflect on this process when we use formation research to establish internal links between the practice developed and the theory of child development, through the mediation of critical reflection that analyzes everyday life in order to reconstruct it. This was possible in the Pedagogical Workshops (Play Workshops), as well as in the moments of the Collective Reflective Interview, in the records written in the form of the Reflective Memorial of the Formative Process and the Pedagogical Letters⁴.

When we approach formation research, we are establishing a relationship with teacher formation, and research that has this focus is identified as research on initial formation (RIBEIRO, 2015) and research on continuing formation (LEITE, 2017; MASSARO, 2016). When dealing with continuing formation, they may be related to beginning teachers (BANDEIRA, 2014) and in-service formation (BAHIA; MOCIUTTI, 2017; SANTA'NNA, 2016; ZURAWSKI, 2009); as well as they may also be related to the definition of development as a unit to deal with formation research, the possibility of professional development by creating conditions for the emergence of the new. It is this research formation that we deal with.

It was in this perspective that the Play Workshops⁵ were held and involved moments of critical reflection on the pedagogical practice mediated by the theoretical-methodological foundations of Historical-Cultural Psychology, by the reports of the activities developed, by the questions about aspects of child development carried out by the teachers and about the activity of playing, a source of child development that "is carried out in conditions of reciprocal relationship with the environment, when the ideal, terminal form, the one that

⁴ In the process of producing information about the object of study of the thesis, pedagogical practice mediated by playing (MARTINS, 2019), interviews, pedagogical workshops and a written record were carried out in the form of a memorial and pedagogical letters.

⁵ The Play Workshops had as a structure of actions: games, reading chronicles, appreciation of works of art, activities with musical instruments, various games as the initial moment of the formation meetings, moments of dialogue about what the teachers wanted to talk about at that meeting, which may refer to the host activity, issues related to school, children or activities developed in the classroom, and study of texts on the activity of playing and child development.

should appear at the end of development" (VIGOTSKI, 2018, p. 85), already exists and mediates learning.

In Early Childhood Education, due to the historical conditions of its emergence, this discussion of formation for professional development was linked to initial formation, because the reality presented a significant number of teachers working without specific formation (GATTI; BARRETO, 2009), as determined the Law of Directives and Bases of Education n. 9,394/96 in its article 61 (BRANDÃO, 2010).

In Piauí, this reality was no different, according to a survey by Lima (2016), which involved 8,156 teachers working in Early Childhood Education in 2013. The profile is formed by teachers with secondary education, Higher Education, Complete Elementary School and incomplete, with continuous formation being almost non-existent.

These data are relevant to validate the need to develop formation research in Early Childhood Education as a way to create conditions for continuing education to take place and generate contexts for critical reflection on the practices that take place in it. Based on the research by Lima (2016), we can mention the formative policies of the Ministry of Education for Early Childhood Education, such as ProInfantil, a medium level distance course, in the Normal Mode, aimed at professionals who worked in day care centers and pre-schools without specific formation. ProInfantil was developed in partnership with municipalities that received the material from the Ministry of Education (MEC) and should offer infrastructure and human resources to accompany the development of formative actions.

ProInfantil was launched in 2005, and according to the survey by Lima (2016), in 2013 there were still high school teachers without formation working in Early Childhood Education. Which means that after 8 years, the Program had not reached its objective in Piauí, to grant formation to, at least at secondary level, professionals working in the classrooms of kindergartens and pre-schools in Early Childhood Education.

Based on these data, we can infer that continuing education for early childhood education professionals is recent and initial formation itself was included in the Pedagogical Project of the Pedagogy Course (PPC) of the Federal University of Piauí (UFPI) only in 2009, when started to qualify for acting in this stage of teaching.

Formation research is a way to carry out ongoing formation that seeks to problematize the practice and formation carried out by teachers, to raise awareness about the knowledge produced in the formative course and the actions taken to mediate the formation of children. For Gatti *et al.* (2019, p. 17, our translation): "By problematizing issues related to teacher

education and teaching work, the objective is to create conditions for change, since we are not problematizing for abstract delight”.

It is from this perspective that Gatti *et al.* (2019) understand the formation of teachers as a need for an education that meets the demands of society. This is because it is not possible to think about school education without formed professionals, without a high level of awareness about the historical and social aspects of society, about global, national and local demands. Education professionals are not individuals with a vocation, who work simply for love, but must have solid formation and on a permanent basis. Thus, Gatti *et al.* (2019, p. 19, our translation) explain:

Teaching is no longer a spontaneous action, which can be developed only by intuition, to become a field of action based on philosophical-social, historical-psychological foundations and foundations of specific practices that demand mastery of knowledge integrated with scientific and humanists for educational action aimed at new generations, in which languages, technologies and interpretive structures constitute its core.

Based on these arguments, we evidence that formation policies meet the interests of capitalist society with a high level of social inequality and are based on the fragility of the formation of early childhood education teachers. We need to overcome the false awareness of these policies that intentionally do not guarantee a minimum of formation for education professionals, and this reverberates in the quality of the practices developed, aiming only at the process of acquiring specific skills and with a predominance of the cognitive dimension over the other dimensions that constitute child development.

The reality of teacher education in Early Childhood Education justifies the need to carry out the formation research we have developed, since, based on the process of critical reflection on practice, according to Freire (1977) and Liberali (2010), it meets teacher formation needs and creates the conditions for this reflection.

Zurawski (2009), in the development of his dissertation on teacher formation in Early Childhood Education, made use of formation research and elaborated a stage of this process, called the formative chain. This chain had the function of demarcating fundamental contents of the formation process in the movement of surveying needs, in the observation of teaching practice, in formative meetings and conversation circles. These contents are called themes by the author.

Zurawski's (2009) proposal is close to the one we propose for aiming at changing teaching practices – although in his research the object is the work with families in the education of day care children – and also for considering the need-to-know what children,

teachers and educators need to learn. But the theoretical basis underlying the formation research carried out at the doctoral level diverges from the proposal of the aforementioned author, because we consider it essential to analyze the formative needs in the process and not just at the beginning, as mentioned by Zurawski (2009), who in dealing with formative chain, states that this guides the preparation of the formative plan.

From what was discussed, we understand that formation research constitutes a movement of comings and goings, mediated by the analysis of formative needs to define formation contents. In the process, the teacher learns things, generating doubts, producing new needs, implications of the process of critical reflection on the pedagogical practice of Early Childhood Education and on the researcher's practice in the production of knowledge that gave rise to Martins' thesis report (2019). Both researchers and teachers are formed in different dimensions, but meeting the same formative needs inherent in the process of carrying out the practice.

It is for this reason that we corroborate the discussion by Gatti et al. (2019) when dealing with the valorization of an investigative posture in teacher education, by emphasizing the need for the relationship between aspects of teacher education and work, which validates the relevance of education research as a proposal to think about and carry out teacher education.

There are certain aspects of teaching practice that can be better developed from problematization and systematic investigation based on theoretical-methodological foundations and instruments. Formation for investigation helps teachers to learn how to look at the world from multiple perspectives, including those of students [children], whose experiences are very different from those of the teacher and, above all, to use this knowledge to make use of practices more equitable in the classroom [activity room] (GATTI *et al.*, 2019, p. 188, authors' highlights, our translation).

In this relationship of research with formation, Lefebvre (1975) helps us when he explains about the process of knowledge production through the movement of thought in the struggle to explain reality. For the author, human beings in the search for knowledge make an effort to abstract, reflect and expand their awareness. And to reflect critically, it is necessary for thought to be able to link terms, such as being and nothingness; becoming and being; quality and quantity; it must be thought movement and thought in motion; it needs to highlight the contradictions and then relate them, define the unity between them and, finally, introduce the new, the leap, the thinking that advances.

Thought is destroyed as thought from the moment it is separated from the content, from the moment the content is not considered as content (natural and social) of thought, not yet apprehended or only globally apprehended, not yet analyzed (LEFEBVRE, 1975, p. 179, our translation).

The content of thought for which we want to create conditions to be a movement is child development through play, a guide activity and source of child development, for a critical reflection on the pedagogical practice of Early Childhood Education. And we are considering that conducting formation research with a view to critically reflecting on the fundamentals of practice is possible if it is based on the movement of content and the way of being a teacher of Child Education.

Thus, formation research is marked by critical reflection on the foundations of practice; through the negotiation of formative actions; for the analysis of formative needs and for thinking, feeling and acting that denies determinism, socially and historically determined thinking, feeling and acting with a view to humanization. Let's see the constitutive principles of the formation research developed in the doctoral process in education carried out in the Postgraduate Program in Education – PPGEd/UFPI.

Formation research and its constitutive principles

The purpose of defining the research modality as formation research was also anchored in the many names given to research that consider the research and formation unit and in the many ways of carrying out this research modality. And considering the historicity of this type of research, we present below some ways to carry out research with teacher education, research aimed at establishing relationships between researcher and subject.

Among these, we highlight the historicity presented by Alvorada Prada (2012) with the intention of demarcating the research also established in formation. The author sought to map the names given by the authors of the dissertations and theses of the Postgraduate Programs in Education of Brazilian Universities, in the period 1999-2008, to the types of research and/or methodologies carried out through intervention research for teacher education. With this research, the author identified several names for this way of doing research with formation. We can mention action research, collaborative research and what the author calls collective research.

The research that Ibiapina, Bandeira and Araujo (2016) develop are characterized as collaborative, demarcated as those that produce knowledge mediated by investigative processes of the actions of teachers and with these teachers. Research carried out in

collaboration between research participants. There are also the so-called action research, and the critical collaboration research. Another way of conducting formation research is defined by Morin (2004) as comprehensive and systemic action research, which considers its essence to be participation, and by demanding it, the actors are involved in all stages of the process, from the elaboration of the formative project. Thus, everyone becomes a researcher.

These ways of doing formation research aim at the professional development of the participants involved, characterized by the production of knowledge and self-reflection. But creating conditions for professional development in the participants of this process that reveal trends related to pedagogical practice and its relations with the activity of playing make the research developed to be particularized *by the production of different forms of registration to mediate the process of critical reflection, by the analysis of meanings produced in the research process as a path to professional development*. This is because every activity is meant and every transformation of practice requires transformation of meanings, in and through *the creation of situations of contradiction to produce joyful affections*.

The proposal that is discussed and forwarded is to consider formation research to define instruments and ways of using them that do not detract from the understanding of the research modality and its relationship with the theoretical basis. There are countless possibilities that this methodology creates. The option for this type of research is explained by the theoretical basis of the thesis, which is based on the categories of mediation and totality as categories that help the individual/researcher in explaining reality in a multiple and moving way.

This is the understanding of the reality of the teachers who were part of the research, in relation to the needs produced in carrying out the studies, as well as in the process of critical reflection and in the production of written record instruments, in which we used the Reflective Memorial of the Formative Process and the Pedagogical Letters, in addition to participating in Play Workshops, in order to create conditions to generate professional development.

In the formation research process, agents are involved through relationships, connections and concatenations based on *becoming*, in the process of knowing that knowledge manifests itself in an apparent way, but the essence can be unveiled. The formation research that was developed had the following principles:

- **Critical reflection on practice** with its theoretical foundations, considering practice as a criterion of truth that transforms reality and the condition for the development of consciousness;
- **Analysis of formative needs** as a mediation for critical reflection and a condition for professional development, understood as the production of the new, of human development;
- **Creation of situations of contradiction for the production of happy affections** on the formation and development of the practice, through the relationship of the human being with the object to know;
- **Production of the new on the development of practice**, being carried out in a shared way and as a totality that expresses itself in the multiple determinations of being.

Critical reflection on practice permeated the entire process of conducting the formation research and was evidenced along the way through the appropriation of theoretical foundations on child development and on the activity of playing, which produced new formative needs regarding the development of pedagogical practice.

The formative needs are implied in this process of critical reflection by enabling teachers to express a desire to learn about child development, about how to organize pedagogical practice guided by the objective of developing the child fully, and not just in some skills that prioritize only the dimension cognitive.

In the course of the formation research, the creation of situations of contradiction was generated from the moment when the narratives of the collective reflective interview were problematized and we highlighted excerpts in which the participating teachers addressed the presence of playing in the activities developed and related them to Vygotski's explanations (2018) and its appropriators about what is development, and what is playing as a child's main activity.

Thus, we reiterate that the creation of conditions for professional development is linked to formation that has as its principle the critical reflection on the formative process and on the development of practice, considering the social and historical conditions, based on theories that mediate the analysis of practice with the production of the new, because professional development occurs when changes are materialized in the pedagogical practice.

The process of transforming practice is complex and multi-determined. In this perspective, we turn to Saviani (2011, p. 91, our translation), when he addresses the

possibility of transforming the practice through critical reflection and the precariousness of the conditions for this transformation to happen:

[...] as the conditions for the development of practice are precarious, obstacles are also created, challenges to the development of theory are created, and this in a double sense: in a first sense, insofar as, if the practice that underlies the theory, which operates as its criterion of truth and its purpose, has a precarious development, facing complex obstacles within its materiality, it places limits on theory, hindering its progress; in a second sense, as the precarious conditions of practice cause theory to find ways to understand these obstacles and, when understanding them, seek effective mechanisms and, therefore, also practical, formulating them with the clarity that the theory demands, in view of its mobilization for the effective transformation of these same conditions.

The objective and subjective conditions for the transformation of the practice are precarious, as stated by the author, due to the very characteristics of capitalist society, based on the division of classes. In this perspective, social institutions such as the school end up guaranteeing this precariousness in teaching. Therefore, formation should create conditions for teachers to find ways to resolve these obstacles and seek to develop a practice aimed at emancipation. It is in this terrain that critical reflection becomes necessary for the formative process.

However, as Saviani (2011) attests, the precarious conditions of practice lead the theory to find ways, paths, alternatives to understand these obstacles. The obstacle to which we refer is the pedagogical practice that aims only to make children literate, a pedagogical practice with weaknesses in knowledge about the child and about their development and learning process.

Saviani's (2011) explanation allows us to mention the nature of critical reflection in teacher education. It resides in raising the level of awareness about the practice developed, creating reasons to continue reflecting on their actions at school to form individuals, in this case, children.

These arguments corroborate Freire (1977), Zeichner (2008), Ibiapina (2010), Carvalho (2012), considering that the process of critical reflection enables professionals to make decisions about their activities in a conscious way, as they can analyze the structures institutions and the awareness of who they are, what they do and think, are able to look at reality and understand the contradictions that constitute it. Carvalho (2012, p. 101, our translation) clarifies that: “the formative processes mediated by critical reflection can form and transform the teacher, constituting him as a being for himself; professional capable of thinking, feeling, acting towards social, educational and school transformation”.

The production of the new about practice was constituted in a deeper understanding of the limitations of pedagogical practice that aimed only at learning to read and write, and repetitively, through many demands, because the knowledge of these skills is measured in tests and teachers and schools are rewarded for their children's performance on these tests.

What made our proposal for formation research a situation of contradiction, as the instituted meets the needs of capitalist society that always aims for a final product that can be added to the valorization of teaching work. The situation of contradiction was also created when the use of playing as a teaching strategy was attested, and it also started to think of playing as a child's activity with its specificities and possibilities of appropriation and objectification of human culture.

In the research developed by Marques (2014, p. 23, our translation), the author bases herself on Spinoza (2016) to emphasize that "the experience of the educational process, mediated by the production of happy affections, helps teachers and students to discover what potentially makes them happier". This author's idea gains strength in our research, because in it the experience of happy affections created conditions for teachers to increase their power to act, regarding the development of pedagogical practice. What the teachers experienced in the formation research generated the production of happy affections, as new meanings were produced about the pedagogical practice they performed, signaling zones of meaning that indicated the possibility of change.

Of course, formation developed through formation research should be a space and time to produce happy affections to increase, according to Spinoza (2016), the power to act, either by transforming thinking about pedagogical practice, or by transforming this practice, or creating reasons to continue studying and reflecting on the integral development of the individual, through the production of new zones of meaning. We intend to highlight these zones of meaning in the final considerations of this article.

Inconclusive notes

In the process of producing knowledge about the constituent elements of the pedagogical practice mediated by play, the meanings produced by the teachers participating in the formation research generated joyful affections on the formative process, on the possibilities of sharing the challenges of teaching Early Childhood Education. The joyful affections made the Play Workshops moments of laughter, attentive listening, aesthetic beauty, of need for the teachers who reported in their Pedagogical Letters the desire to

continue studying about the child's development, to continue the meetings, regardless of completion of the research that gave rise to the doctoral thesis report.

The feelings produced by the teachers about the formation research oscillated between joy and sadness, pleasure and suffering. It was joy because they were meetings that enabled attentive listening, sharing the challenges of teaching. However, there was also sadness and suffering when they understood the practice as limiting, when they found that they were not creating conditions for playing to happen at school, aiming at the child's integral development. And joy again, as they look at their pedagogical practice mediated by playing and understand that they have produced knowledge about this practice.

The mixture of feelings produced about formation research, combined with explanations about the understanding of the practice and the need to do things differently, is indicative of the internal struggle, the struggle of opposites (KOPNIN, 1978; LEFEBVRE, 1975), as a condition for the emergence of new. The knowledge of literacy teaching practice was coming into conflict with knowledge about child development, with knowledge about playing as a guiding activity for the integral development of the child.

Conflicts were intensified when the teachers, based on the knowledge produced in the formation research, thought about how to organize the practice and did not know how to do it; then, there is a need to know more about playing and child development.

With the learning produced, the teachers looked at practice as something that can be changed, based on knowledge about playing and child development. The teachers found that it is not a simple relationship of appropriation of theory with the realization of pedagogical practice, but a process of comings and goings, permeated by critical reflection on teaching and on children and their needs, a struggle between new learning and practices already consolidated that generated professional development.

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