

Meanings about the development of creativity: contributions to teacher training¹²

Significações sobre o desenvolvimento da criatividade: contribuições para a formação de professores

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ABSTRACT

The article aims to understand the meanings attributed by preschool teachers to the development of creativity and how, based on these meanings, they plan pedagogical actions targeted at children. It is justified by the relevance of problematizing reductionist conceptions about the role of creativity in human development processes and contributing to the expansion of discussions on the topic in schools, improving teacher training processes at initial and continuing levels. The research, with a qualitative approach, collected data through interviews, analysis of which was carried out using the procedure of cores of meaning, based on historical and dialectical materialism and the psychology of Lev Vygotsky and collaborators. The conclusions indicate divergences regarding the conception of creativity; point out congruence regarding material difficulties in working on the topic in schools; highlight the lack of discussions on the subject in initial training courses; and bring forth training needs that integrate theory and practice, contributing to the development of creativity as a higher psychological function.

Keywords: Creativity. Teacher training. Pedagogical practice. Historical-cultural psychology.

RESUMO

O artigo tem por objetivo compreender as significações atribuídas por professoras de pré-escola ao desenvolvimento da criatividade e como, a partir dessas significações, planejam ações pedagógicas voltadas às crianças. Justifica-se pela relevância de problematizar concepções reducionistas sobre o papel da criatividade nos processos de desenvolvimento humano e contribuir para a ampliação das discussões sobre o tema na escola, aprimorando os processos de formação docente em nível inicial e continuado. A pesquisa, de abordagem qualitativa, coletou dados por meio de entrevistas, cuja análise foi realizada pelo procedimento dos núcleos de significação, com embasamento no materialismo histórico e dialético e na psicologia de Lev Vygotsky e colaboradores. As conclusões indicam divergências quanto à concepção de criatividade; apontam congruência sobre dificuldades materiais para trabalhar o tema na escola; evidenciam a ausência de discussões sobre o assunto nos cursos de formação inicial e destacam necessidades formativas que integrem teoria e prática, contribuindo para desenvolver a criatividade como função psicológica superior.

Palavras-chave: Criatividade. Formação de professores. Prática pedagógica. Psicologia histórico-cultural.

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1 Introduction

Technological development has recently posed challenges to the limits of human capacities, such as creativity. This term, widely used in everyday life, is the subject of study in various scientific fields. Depending on the context, different interpretations are attributed to it: in Marketing, creativity is seen as a tool for the development of new products; in Psychology, the focus is on understanding the processes involved in its development; in Education, research explores how school practices can be organized to foster creative thinking; and in the Arts, multiple definitions of the concept emerge (Silva et al., 2016).

In this text, creativity will be addressed at the intersection between Psychology and Education.

The studies of Guilford (1950), one of the pioneers in research on the subject, describe creativity as related to divergent thinking — the ability to generate multiple ideas or solutions to a problem, emphasizing originality, fluency, and elaboration. For Guilford, creativity occurs in thought and is linked to a creative potential based on specific cognitive abilities that enable individuals to innovate and produce original ideas. He highlighted creativity as a key element for creation, being a manifestation of the innovative and original use of previously acquired knowledge and skills.

Torrance (1966) defined creativity as “the process of becoming sensitive to problems, deficiencies, gaps; forming ideas or hypotheses concerning these problems or deficiencies, testing these hypotheses; communicating the results, modifying and retesting these hypotheses whenever necessary” (Alencar, 1993, p. 28). The author expanded on Guilford’s studies by incorporating new elements to identify a person’s creative capacity, associating creative thinking with personality traits such as sensitivity to problems, ideational fluency, flexibility, originality, emotional expression, fantasy, curiosity, unusual perspective, self-awareness, versatility, ability to integrate, combine and synthesize, willingness to take risks, persistence, among others.

Amabile (1996) developed the componential model, introducing social factors into the understanding of creativity. For the author, creativity is related to motivational, cognitive, social, and personality factors, representing an advance in research on the topic. Amabile proposed a distinction between algorithmic and heuristic tasks: an algorithmic task is carried out by following specific instructions, without producing anything new — for example, assembling an object by following a manual. In contrast, a heuristic task corresponds to a creative action that generates something original, resulting from a plan not guided by predefined instructions, thus creating something nonexistent (Braga, 2019).

Another factor that influences the creative act is the judgment of ideas considered creative. Therefore, cognition and personality are not the only predominant elements in creativity, since the way in which the environment evaluates a creative action directly affects how the individual will continue the creative process.

The componential model presents three fundamental axes for the creative act to occur: domain-relevant skills, the creative process, and motivation. Domain-relevant skills refer to the knowledge and technical competencies a person possesses to solve a problem. The creative process concerns how the individual manages and articulates this knowledge to produce something new. Motivation, in turn, is the driving force that leads the individual to create, which can be intrinsic — originating from the persons themselves — or extrinsic, derived from external factors. Both forms of motivation play important roles in the development of creativity.

The systemic perspective, developed by Csikszentmihalyi (2002), proposes that creativity results from the interaction between individual and sociocultural dimensions. This interaction occurs fluidly, in which the person seeks satisfaction, happiness, and pleasure throughout the creative journey. The systemic perspective recognizes the relevance of personality in the creative process but also values the impact of the social system. An individual, immersed in society, is both influenced by social issues and capable of influencing them. Three factors are essential for the

development of creativity: domain (knowledge), the individual (genetic aspects), and the field (the people who determine what is considered creative).

From this perspective, in order for something to be recognized as creative, its validation by a given social group is indispensable. Only with such recognition can an action or idea be carried out and characterized as creative.

Sternberg and Lubart (1995) developed the investment theory, according to which a person is considered creative when they are capable of generating new products. To achieve this, intellectual abilities, knowledge, thinking styles, personality, motivation, and a favorable environment are required. In this perspective, a creative person identifies something that is not socially valued and attributes a new meaning to this element, so that their discovery is recognized as creative by society. Thus, they assign value to something that previously had none.

The studies of Vygotsky, which underpin this research, were produced between 1910 and 1934, and are therefore prior to those of the other authors mentioned. When addressing creativity, Vygotsky emphasizes the importance of observing phenomena in their entirety, considering biological, environmental, social, historical, and cultural factors. For him, it is impossible to separate individual aspects from social ones, as both maintain a dialectical relationship, mutually influencing each other.

Vygotsky (2009) discusses the need for a favorable environment for the creative act to occur. For the author, creativity is a higher psychological function, exclusively human, developed through social interactions. By using socially established tools and signs, the individual apprehends reality, internalizing social processes built over time, which contributes to the development of consciousness and personality.

The creative act, according to Vygotsky, does not arise from the void but it results from processes of cultural assimilation and paths already trodden by others, transmitted through generations. This enables new combinations and reinterpretations. Creativity, in this sense, is closely linked to imagination,

which is anchored in the reality experienced by people. Even abstract images have their origin in concrete experiences.

Vygotsky distinguishes two forms of activity: the "reconstructive or reproductive," which reproduces or repeats previously performed actions based on memories, and the "combinatory or creative," which articulates past experiences and lived moments to generate something new. He defines creative activity as that which results "in the creation of new images or actions, and not in the reproduction of impressions or previous actions from experience" (Vygotsky, 2009, p. 13).

Creative activity is essential for social and cultural production and in order for it to occur, the individual must have access to diverse knowledge, resulting from historical constructions. These elements expand the possibilities for creative practices. In this process, memory plays a central role since, even when creating something new, its foundation is anchored in concrete reality, reorganized and combined to generate the unprecedented.

As a materialist, historical, and dialectical author, Vygotsky understands creativity based on social, individual, cultural, and biological factors. Thus, creativity is not innate but stems from a favorable environment capable of building a repertoire of experiences and knowledge that broaden the possibilities for creative combinations.

In contemporary times, the educational field has devoted greater attention to creativity with the implementation of the National Common Curricular Base (BNCC - Base Nacional Comum Curricular in Portuguese), a normative document that defines essential learning for Basic Education. The BNCC considers creativity as one of the fundamental competencies to be developed by students throughout their schooling. Given that school is a space where children and young people spend a significant part of their lives, understanding how creativity develops becomes essential to support pedagogical work.

In a literature review on research related to creativity in education, Marcolino (2023) identified a tendency to treat creativity as a didactic strategy for

teaching content — for example, using games to teach mathematics or creative stories for literacy. However, such approaches do not delve into the complexity of creativity, failing to consider it as a foundation for the development of humanization processes.

After presenting the most relevant theories on the research trajectory of creativity — which were not described chronologically — the objectives and theoretical-methodological procedures of this investigation will now be presented.

2 The research, its procedures, and theoretical-methodological foundations

This research, derived from the first author's master's thesis under the supervision of the second author, aimed to understand how preschool teachers perceive the development of creativity and how, based on these perceptions, they plan pedagogical actions directed toward children. With the intention of questioning reductionist conceptions of the role of creativity in human development processes and broadening the debate on creativity within pedagogical practice, the study also seeks to contribute to the improvement of teacher education processes, both at the initial and continuing levels, in regards to this theme. The research is guided by the following question: How do teachers perceive the development of creativity in children?

To achieve the established objective, semi-structured interviews were conducted with two teachers working in the municipal education system of São Paulo. The interviews were carried out via a video call application and recorded for later transcription. The choice of this interview modality was motivated by the context of the health crisis caused by the Covid-19 pandemic, which justified the avoidance of personal contact.

Considering the precautions highlighted by Antunes et al. (2023) regarding the advantages and disadvantages of remote interviews in qualitative research, it is noteworthy that the participants had a stable internet connection, were in locations of their choosing without interruptions, and demonstrated cooperation throughout the process.

The questions addressed the topic of creativity, eliciting the teachers' perceptions on the subject at different stages of their life trajectories. The explored periods included childhood, adolescence, initial and continuing education, as well as professional experiences in the classroom with children.

The school where the research was conducted falls under the jurisdiction of the Jaçanã-Tremembé (districts of São Paulo) Board of Education, located in a peripheral area with easy access for the researchers. It is a public institution serving the community in the morning and afternoon shifts, with a predominantly female staff and a teaching team composed of professionals averaging ten years of experience in the school system. The choice to conduct research in a public institution stemmed from the researchers' interest and commitment to valuing public education and the work of professionals in these institutions, as well as the desire to explore the phenomenon in an area distant from the city's central axis.

To gain access to the field, after obtaining authorization from the Board of Education, several schools in the region were contacted. One of them replied positively to the invitation to participate in the research.

Regarding the selection of the participating teachers, the research was presented to the management team with a request for the indication of professionals who would voluntarily agree to participate in the interviews. The participants, identified by the fictitious names Beatriz and Lica, accepted the invitation.

Beatriz, 54 years old, is married, holds degrees in Teaching and Pedagogy, and has a postgraduate qualification in Psychomotricity, all obtained from a private institution. She reported having taken several continuing education courses offered by the São Paulo City Government. She has been a teacher for 25 years, with 22 of those years at her current school. She was born in the outskirts of São Paulo in a single-story house with a backyard, where she lived with her parents and four siblings, near the school where she now works.

Lica, 41 years old, is married and a mother of two children. She earned a degree in Information Technology in 2003 and a degree in Pedagogy in 2008, both from private institutions. She completed her lato sensu postgraduate studies in Early Childhood Education in 2020, also at a private institution, starting in person and completing it online due to the Covid-19 pandemic. She has been working as a teacher for 13 years, 10 of them at her current school. She reported having lived since childhood in a city within the São Paulo metropolitan area, where she attended private school and completed higher education. At the end of the interview, she mentioned having read a book on creativity, demonstrating interest in seeking theoretical foundations to contribute to the research.

Both participants are tenured teachers, do not hold multiple positions, and are exclusively dedicated to teaching. They participate in the Special Integral Training Program (JEIF - *Jornada Especial Integral de Formação*).

The research was approved by the Ethics Committee of the Federal University of São Paulo under opinion no. 5.315.902.

The collected data were analyzed using the Meaning Cores, as proposed by Aguiar and Ozella (2006, 2013) and Aguiar, Soares, and Machado (2015). This procedure, grounded in historical-dialectical materialism and the psychology of Lev Vygotsky and collaborators — also known as cultural-historical theory — organizes data into stages: construction of pre-indicators, construction of indicators, and construction of signification nuclei. The objective is to go beyond mere descriptions, seeking explanations for the investigated phenomenon.

In accordance with the authors' recommendations, the construction of pre-indicators began with a floating reading of the interviews, approaching the participants' discourse. Multiple readings were performed to identify words or phrases containing contradictions, hesitations, or emotional load. From the aggregation of pre-indicators, the indicators emerged — the second stage of analysis and the beginning of the nuclearization process. The indicators were organized according to criteria of similarity, complementarity, or contrast, forming thematic contents.

The construction of the cores of meaning occurred in the third stage of the analysis process, during which an interpretive effort was made to systematize the data in order to reveal each teacher's ways of thinking, feeling, and acting in relation to the studied phenomenon. Moving beyond the empirical dimension, as recommended by Aguiar and Ozella (2006, 2013), the aim was to highlight the essence of the phenomenon by articulating the data with the contextual circumstances in which they were produced. In a subsequent phase, the nuclei were integrated into an inter-core analysis, which synthesized points of convergence and divergence identified in the participants' discourses, revealing how they attribute meanings to the development of creativity and how such meanings influence their pedagogical actions. The analysis presented herein addresses this integrative synthesis, which reveals the congruences and divergences found in both teachers' discourses.

Vygotsky (2007) emphasizes the essential role of language in the development of consciousness. Language, as a social creation, uses culturally established signs and tools to transform the external world into intrasubjective aspects. Thus, the word — the fundamental unit of discursive thought — reflects reality within human consciousness.

Explaining the importance of the word for understanding human consciousness, Vygotsky states that the word "represents a living unity of sound and meaning and that, as a living cell of sound and meaning, it contains in its simplest form all the basic properties of the whole of discursive thought" (Vygotsky, 2009, p. 9). For the author, the word is the generalization of thought that reflects reality within consciousness. Therefore, to seek to understand the meaning of the word is to understand the individual's thought.

Beyond meaning — which is culturally shared — Vygotsky introduces the concept of sense, which incorporates subjective elements related to individual experiences and needs. Meaning and sense are interconnected and complementary concepts. Therefore, according to the assumptions of cultural-historical psychology, the articulated apprehension of meanings and senses results in what is called significations.

Based on the presented theory, the analysis process undertaken in this research considered the categories of meaning, sense, and historicity.

3 What the meanings attributed by teachers Beatriz and Lica reveal about the development of creativity

The analysis process, conducted based on the previously described theoretical and methodological frameworks, identified six points that reflect both convergences and divergences in how Beatriz and Lica attribute meanings to the development of creativity, as presented in Table 1.

Table 1 – Points of Convergence and Divergence Identified in the Inter-Core Analysis

1 – Listening to children to develop pedagogical proposals.
2 - Offering the exploration of different materials.
3 – Creativity and its development.
4 – Objective difficulties in carrying out pedagogical action.
5 – Educational experiences and creativity.
6 – The theory–practice relationship in initial and continuing teacher education.

Source: authors' work.

The first point, entitled “Listening to Children to Develop Pedagogical Proposals,” highlights that both teachers seek to listen to and value the children’s interests, proposing activities that meet those interests.

Beatriz: The child is the protagonist; nothing comes ready-made anymore — creativity comes from the child. We try to work based on their interests. The child gets interested only when they have some knowledge, when they bring something of their own.

Lica: I started researching right along with them. I listen to what they bring up — there’s no way I can just say: ‘I’m going to teach this or that.’

This respectful approach to children's needs and interests is in accordance with the guidelines set forth in the Curriculum of the City – Early Childhood Education (*Currículo da Cidade – Educação Infantil* in the original Portuguese version), a document that guides pedagogical practices in the schools of the city of São Paulo and is aligned with the learning rights established by the National

Common Curricular Base (BNCC).

This ongoing attitude of listening is also a fundamental element for creating bonds between educators and children — both within the same group and among different groups — since the act of listening fosters a sense of security and belonging that promotes their well-being within the educational unit (São Paulo, 2019, p. 74).

Even though it is based on the concept of the child as a protagonist — one who learns through interaction with others, with objects, and with the environment — it is observed in Beatriz's discourse that the proposed activities do not encourage research processes or in-depth exploration that could broaden the pedagogical planning toward other possibilities. According to Davoli (2020), this practice is referred to as “activism,” as explained below:

[...] Another fundamental aspect, which concerns both children and adults alike, is living, doing, experiencing — which, although important, is not enough. Activism is a risk we face with children (engaging in many productions, doing many things...). Doing is important, but it is not sufficient. We must allow boys and girls — and ourselves — time to reflect on what we do and how we do it. These are processes of metalinguistic awareness and metacognition that enable us to build knowledge. The more situations are created for group reflection, the richer this process will be, as more points of view will emerge. In any group, there should always be someone who questions what the majority thinks or who leads the whole group to reflect on the reasons behind things (Davoli, 2020, p. 31).

This form of intervention reveals a lack of clarity regarding the concept of child protagonism, which does not exclude the teacher's own protagonism. Valuing children's protagonism implies that the teacher must also take over a leading role, since teaching and learning processes occur through human relationships. It is the teacher's responsibility to organize pedagogical action in such a way as to enhance children's ability to observe and explore the world — not through isolated activities, but through an investigative approach that is meaningful and permeates the entire pedagogical process.

To achieve this, it is essential that the teacher rely on solid knowledge of the stages and characteristics of human development, in order to plan and direct their teaching practice with confidence and clarity. Mastery of these specificities enables the teacher — whether in preschool⁵ or other educational stages — to mediate situations that meet children’s developmental needs.

In this context, the active listening mentioned by teacher Lica becomes an indispensable element for understanding and meaningfully responding to children’s needs and interests.

Vygotsky (2021) teaches that during the preschool period, the child’s main activity⁶ is play. At this stage, the child develops the ability to memorize facts and to detach temporally from the concrete, extracting “the object of thought from the concrete temporal and spatial situation to which it is linked” (Vygotsky, 2021, p. 279). Therefore, an intentional and well-planned pedagogical action that values play and encourages research for the construction of new memories can significantly contribute to sustaining and expanding children’s interests.

The second point, “Offering the Exploration of Different Materials,” highlighted the teachers’ concern with providing children with diverse stimuli, recognizing this element as fundamental to the development of creativity.

Beatriz: We have an entire process, and once again, creativity comes into play because you are dealing with various materials — and they are unstructured. But what are you going to do with them? Because, depending on how you work with it, it means nothing, it says nothing — it’s just junk. That’s why creativity has to be at play at every moment.
Lica: [...] We usually bring little containers, different materials — scraps, as we call them — and they play with those things in that space. There’s a magnifying glass, so I’ll bring the magnifying glasses, let’s take a look at the tree, let’s see if we can find some little bugs [...].

⁵ A term used by Vygotsky to characterize the period of human development from ages 3 to 6, during which play is the main activity.

⁶ Leontiev (2001) defines main activity as the one responsible for guiding the most significant transformations in a child’s development, preparing them to reach a new and higher level of development.

By presenting different materials — such as elements from nature and socially created objects — the teachers provide opportunities to broaden experiences related to the concrete world, thus fostering children’s development. This is a positive aspect, since, according to cultural-historical psychology, the appropriation of the external world and the formation of the psyche occur through interaction with socially developed symbols and signs.

When these materials are incorporated into play, they become instruments that allow children to put into practice the social uses attributed to them. Thus, through make-believe play, children explore their imagination, which forms the foundation for the development of creativity.

This point of convergence in the teachers’ discourse is also in line with the guidelines of the Curriculum of the City, a document that uses the term materiality in a broader sense than the term materials, which could otherwise be mistaken for school supplies:

The term “materiality” seeks to broaden the meaning of materials, which some may understand merely as school supplies. In the field of materialities, we may have a balloon and also a film, branches or sand, a poetry clothesline, ribbons, and drums. Natural, cultural, and technological elements — all of these are materialities (São Paulo, 2019, p. 34).

In the third point, “Creativity and Its Development,” the analysis focuses on how each teacher understands the concept of creativity.

Beatriz: [Creativity is] transforming a situation or an object into something else; it is giving it a different meaning. [...] I think that’s what it means to be creative, and now, in my life as a whole, children are a reference for me when it comes to creativity.

Lica: It’s innovating what you already have, taking different ideas and enhancing what you already have. [...] Being creative means looking for ways, because you are not born creative — I believe the environment helps you, your experiences, like I told you, your readings, your research — that’s it.

For Beatriz, the child is naturally creative, and their creation is related to the way they attribute meaning to objects or situations — a perspective that aligns with Guilford's view, which emphasizes cognitive ability as a relevant factor in the development of creativity.

On the other hand, teacher Lica expands on this idea by incorporating the entire historical trajectory of an object or idea, highlighting that creation is the result of a prior reflective process, supported by favorable conditions for the emergence of the new, through the surpassing of what has already been done. This perspective underscores the importance of social interactions and societal advancement in the creation of new needs.

When asked whether some children are less creative than others, both teachers agreed that differences stem from the variety of stimuli offered. For them, stimulation is essential for the development of creativity, although each teacher presents a distinct view on how such stimuli should be provided.

For Beatriz, the family's role — especially that of the mother — along with the social context in which the child lives, are the main factors influencing the development of creativity. She emphasizes that the mother serves as a key reference in providing the child with a sense of security, thus enabling them to express themselves creatively.

Beatriz: I remember this expression of creativity through actions. I remember we had to organize the house, and my mother would assign a task to each one of us. I was little and would follow them [my siblings] around — more playing than actually doing the task. When it came time to wax the floor, which was made of colored cement [...].

For teacher Lica, however, free play holds a more significant role in the development of creativity, as it is during these moments that children have the opportunity to create spontaneously, without adult interference.

Lica: It's not that the child is more creative — I think they simply had more opportunities for free play.

Indeed, free play plays an important role in the development of creativity, as it is during play that children develop essential skills related to imagination and memory. In make-believe play, the child adopts roles they are not yet socially able to perform, thus understanding their limits and testing hypotheses and observations within the act of playing. This process is fundamental, as it promotes psychic changes that contribute both to the development of their personality and to creativity.

Vygotsky explains that “the essence of play is that it is the realization of desires — not isolated desires, but generalized affects” (Vygotsky, 2021, p. 214). Thus, when a child pretends to be a driver, for example, they do not imitate a single driver but generalize the characteristics of all the drivers they have previously observed. This action reflects their observations of real-life situations, which, through play, can be experienced and re-signified.

The imitation of adult actions and gestures is not, for the child, a mere performance but an action drawn from real life, as highlighted by Leontiev:

The content of the play process, as presented by psychological analysis — that which we call action — is thus a real action for the child, drawn from real life. Therefore, it is never arbitrarily framed; it is not fantastic. What distinguishes it from an action that does not constitute play is solely its motivation — that is, the play action is psychologically independent of its objective outcome, because its motivation does not reside in that outcome (Leontiev, 2001, p. 126).

The act of play, as previously mentioned, highlights that the process itself is the most important element, as it enables the fulfillment of desires and affects that motivate play. Although considered a real action, it is through play that imagination is awakened. In other words, it is the actions performed during play that lead the child to imagine — it is not imagination that originates the action.

It is important to emphasize that action, in play, does not stem from the imaginary situation but, on the contrary, it is the imaginary situation that arises from the discrepancy between operation and action; thus, it is not imagination that determines action, but rather

the conditions of the action that make imagination necessary and give rise to it (Leontiev, 2001, p. 127).

Still regarding the development of creativity, the teachers expressed themselves as follows:

Beatriz: There are moments of free choice, as I mentioned — the toys are always within their reach, and then they make their choices. And we have a rule, an agreement.

Lica: Freely — free, in such a way that, if I want to use up a whole roll of tape, that's fine. I have to give the child that possibility, because they will make mistakes a few times. If they feel secure using a lot of tape... But the movement they made, the scene there — for them — is important. The sense of security they will have in thinking there's a lot of tape stuck there will make them feel safe, and then they'll create something.

Although both teachers recognize the importance of play for the development of creativity, for Beatriz these moments of spontaneous exploration by children with different materials are still considered guided, as the teacher points out that there are established rules and agreements. On the other hand, teacher Lica understands such moments as experiences enabled by free play, also associated with the exploration of diverse materials. In this context, children engage in make-believe play, develop their capacity for imagination, bring memories into their play, and create new worlds and discoveries.

The fourth point, “Objective difficulties in carrying out pedagogical action,” highlights how the teachers perceive the challenges faced in the exercise of pedagogical practice.

From the teachers' perspective, the excessive number of children per class hinders both attentive listening to children's needs and the planning of meaningful spaces and activities that can meet everyone's needs. Furthermore, both emphasize the absence of a second teacher to implement co-teaching as an additional obstacle to the pedagogical process.

Beatriz: The issue, sometimes, is the number of children and the fact that you are alone, because there are times when you are going to work with a material that requires a more attentive approach.

Lica: The number of students makes it difficult, at times, depending on the type of material because, for example, given the way I am, there are things that come up right at the moment, so I had not planned them.

The Normative Instruction of the Municipal Department of Education (SME) No. 28, dated August 29, 2024, Article 14, establishes that, in early childhood education, a classroom may have up to 28 children per teacher. However, § 1 of the same article provides that “In regions where there is demand and considering the universal provision of preschool education, respecting the physical capacity of the classrooms, the number of children in early childhood education groups shall be increased.”

The National Curriculum Guidelines for Early Childhood Education recommend that the “number of children per teacher should allow for attention, responsibility, and interaction with children and their families.” These guidelines suggest a ratio of up to 20 children per teacher for groups of 4- and 5-year-olds (Brazil, 2013, p. 91).

Gentili (2009) explains that, during the process of universal provision of education, no policies were implemented to overcome the historical social exclusions present in schools. This gap directly impacts the material conditions for offering education understood as a fundamental human right, essential for building more just and equitable societies.

The teachers’ accounts reveal a convergence in their perceptions regarding how their objective working conditions hinder the development of pedagogical practice. This situation impairs active listening and the organization of practices that promote the holistic development of children. The teachers advocate for working conditions that, by valuing the social role of public schools and their professionals in shaping new generations, offer better learning and development opportunities to the most disadvantaged—those who depend on public education—especially in contexts often marked by movements toward the privatization of education (Marcolino, 2023).

In the fifth point, “Formative Experiences and Creativity,” the teachers report on the formative experiences they have had in school, university, and continuing professional education, as well as sharing the meanings they attribute to those experiences.

Beatriz: In the beginning, in Infant 1, there were theater plays. The teachers created science and geography content, they would make up little plays, and we had to perform them. They even invited the families, and we performed on the school stage. I really enjoyed doing that — it was very creative: about water, the water cycle — I thought it was really cool to do those plays at school.

Beatriz: Unfortunately, my teacher training course wasn't really connected to creativity, except for the June festivals that the school organized, which were interesting. [...] In the pedagogy course, I think it was indirectly addressed, but it still involved other concepts.

Teacher Beatriz mentions memories from her basic education that she perceived as conducive to her creative development, in contrast to the recollections associated with her initial training, both in the teacher training course and in the pedagogy degree. These experiences seem to impact not only the way she conceives creativity and its development, as highlighted in her previous statements, but also the organization of her pedagogical practice

Beatriz: There is not much you can take from the past because it was very closed off, very boxed in. Sometimes, it is hard for us in the classroom to break away from that because it was how we were trained. That is why, when I tell you that it is often very difficult, in the classroom, to deconstruct yourself in order to allow the child to be who they are, you have to restrain yourself [...].

By acknowledging the difficulties of organizing her work in accordance with the principles of the *Currículo da Cidade*, Beatriz admits that her formative experiences directly influence her professional practice. Even though she is aware of the conceptual changes in Early Childhood Education, she still perceives herself as tied to conceptions classified as traditional.

Regarding her formative memories, teacher Lica expresses the following:

Lica: Back in the early 1980s, my school was already trying to do that — these more playful things. I remember in high school, for example, we didn't have to memorize formulas. I never memorized a formula. We were encouraged, starting from a basic formula, to work it out ourselves — we had to learn how to develop the formula to reach the final one, to get to the result [...].

Lica: [...] For me, my undergraduate degree was quite poor. I found it to be very content-centered. I know how to prepare a content-based lesson plan, but I don't think it was very good. What I do have now is my postgraduate course, which, since it focused on Early Childhood Education, is a whole different thing... it's been nothing but good experiences [...].

Teacher Lica highlights memories from her basic education as innovative, while she describes her initial university training as content-centered and of little contribution to the development of her creativity. In contrast, the experiences she gained from her postgraduate studies are considered more meaningful due to the course's experiential approach. By correlating her statements with the previously discussed points, it becomes evident that Lica seeks to organize her pedagogical practice in a way that provides children experiences similar to those she regarded as meaningful in her own education, valuing free play and the exploration of spaces and materials as opportunities for constructions that foster creative action within a social context.

It is important to emphasize that both teachers report positive memories related to creativity in basic education and how these memories contrast with their later formative experiences. This aspect suggests that initial and continuing teacher education becomes impoverished when organized in a way disconnected from the reality and demands of schools.

Addressing this issue, Oliveira and Cericato (2022) highlight that, in Brazil, initial teacher education predominantly takes place in private higher education institutions, where transmissive models often prevail. These models neither foster the autonomy of future teachers nor promote the development of theoretical-methodological and scientific procedures to address everyday school challenges. As a result, when facing issues for which they have not been prepared, teachers trained under such models lack appropriate tools to solve them.

When initial teacher education fails to deepen reflections on teaching practice, continuing education ends up burdened with the task of filling these gaps, which may lead to a waste of financial resources. According to the authors, continuing education should focus on deepening and innovating through projects developed within the school context, aligned with each institution's pedagogical project and articulated with universities and research groups, traditionally public universities in our reality, responsible for knowledge production.

In the sixth and final point, “The Theory-Practice Relationship in Initial and Continuing Teacher Education,” the discussion presented in the fifth point is expanded. By recounting their formative experiences, Beatriz and Lica reveal a certain difficulty in understanding the relationship between theory and practice, demonstrating a dualistic view of this process.

Beatriz: [...] You need to have experiences; otherwise, you won't make it. If you only stick to theory and training courses, you won't awaken what lies within you. The intention is to open the doors that are closed inside yourself, as an adult, so that you can open those of the children. You have to be connected — creativity is born from that. So, I think pedagogy courses should offer this kind of training, truly putting it into practice, into real experiences.

Lica: Practice — that's what we are always telling the coordinator — there's no point in reading book after book, text after text, watching videos, if you don't actually put it into practice. [...] I think practice is everything [...] it really has to happen in practice for you to internalize it and pass it on to your students.

This dualistic stance toward theory and practice reveals a mistaken understanding, as theory and practice do not exist in isolation — theory materializes in practice. The absence of a theoretical framework may lead teaching into processes of deprofessionalization, making it difficult for teachers to critically reflect on their work and bringing pedagogical action closer to contradictory, reproductive practices devoid of defined intentionality.

This aspect is noticeable in the teachers' accounts, particularly in their demonstrated lack of understanding regarding children's protagonism, their conceptualization of creativity and its development, and the undervaluation of theoretical training in favor of practice within formative processes. Vázquez (1968) warns that no one is a-theoretical, since human beings constantly interact with the ideologies present in society:

We could by no means say that anyone lives in an absolutely a-theoretical world. The ordinary human being is a social and historical being; that is, they are embedded in a network of social relations and rooted in a particular historical context. [...] Their consciousness is likewise nourished by all sorts of acquisitions: ideas, values, judgments, and prejudices, etc. One never faces a pure fact — it is always integrated into a given ideological perspective, because the individual themselves — with their historically and socially conditioned everyday existence — finds themselves in a particular historical and social situation that gives rise to this perspective [...] (Vásquez, 1968, p. 8-9).

Thus, the teachers' discourse highlights one of the challenges faced in both initial and continuing teacher education processes: overcoming the dichotomy between theory and practice. It is necessary to promote clarity regarding the theories that underpin teaching practice, with the aim of constructing a pedagogical action that is both conscious and intentionally planned.

4 Final Considerations

This article discussed how preschool teachers working in the municipal public school system of São Paulo assign meanings to the development of creativity and how, based on these meanings, they plan pedagogical actions aimed at children.

The data showed that the meanings attributed by the teachers to the development of creativity reflect unique and individual conceptions, yet also intertwine with others shared within the culture, shaped by the historical period in which they live, forming part of their life trajectories. Their

narratives recall experiences lived during childhood, within the family, at school, and others shared throughout their formative journey and professional practice.

It was interesting to observe how the teachers differ in their conceptions of creativity and its development. For one, the child is naturally creative; for the other, creativity is not innate but formed through social interactions. However, the teacher who states that creativity is innate also states that the family — especially the mother — and the school play fundamental roles in this development. This contradiction in her discourse seems to result from gaps in her training, which hinder a deeper understanding of the topic. Such conflicting conceptions appear to lead to a pedagogical practice that is reproductive and guided by the orientations stipulated by the education system.

Despite these divergences, there is congruence in other aspects. Both teachers reported positive memories related to creativity in basic education but perceive an impoverishment during their initial teacher education, indicating a lack of discussions on the subject within teacher training processes.

A striking point was the teachers' fragile formation concerning creativity, especially regarding the articulation between theory and practice. Both demonstrated a disregard for theoretical training in favor of practice, which results in poorly grounded pedagogical actions — punctual and based solely on children's immediate interests — without a clear understanding of essential concepts for organizing activities.

Strengthening professional training could help teachers understand creativity in its complexity — a higher psychological function that, as postulated by historical-cultural psychology, is fundamental to human creative processes and, therefore, essential for advancements in science, technology, and social transformation. For this reason, its development in childhood, through intentional and planned school practice, is crucial.

However, such work requires well-trained teachers, knowledgeable about the stages and characteristics of human development and learning processes. As Weisz (2003, p. 23) states, “To adequately interpret what is

happening with a student's learning, the teacher needs knowledge produced in the realm of science. This is because, in reality, we can only see what we have the instruments to understand.”

As evidenced in the literature (Candau, 1996, 1997; Imbernón, 2010, 2011; Nóvoa, 2013; Oliveira & Cericato, 2022), training processes tend to be more effective when they address the difficulties teachers face in their daily work at school. Thus, it is suggested that training proposals be built in articulation with the schools' pedagogical projects and with institutions responsible for the production of educational knowledge and research.

Moreover, both teachers highlighted the challenges posed by their objective working conditions and called for improvements to enable them to offer an education that promotes the holistic development of children. This reinforces the notion that strengthening professional training must be accompanied by strengthening public schools.

Finally, in times of technological innovations, when human capacities are challenged by artificial intelligence, it is essential to reflect on what truly makes humans human and how pedagogical action can foster the humanization process.

Despite the limitations of this research — which relied on the experiences of a portion of school professionals — the reflections presented here may be representative of other contexts within the public education system. This study may contribute to discussions on training proposals that demystify reductionist conceptions of creativity within school development and learning processes, promoting its inclusion in educational policies for teacher education.

As suggestions for future research, it is proposed that studies employing multimethod approaches with larger samples be conducted, allowing for new triangulations and a deeper exploration of the data presented herein.

Significados en el desarrollo de la creatividad: aportes a la formación docente

RESUMEN

El artículo tiene como objetivo comprender los significados que las maestras de educación preescolar atribuyen al desarrollo de la creatividad y cómo, a partir de estos significados, planifican acciones pedagógicas dirigidas a los niños. Se justifica en la pertinencia de problematizar concepciones reduccionistas sobre el papel de la creatividad en los procesos de desarrollo humano y contribuir a la ampliación de las discusiones sobre el tema en las escuelas, mejorando los procesos de formación docente en los niveles inicial y continuo. La investigación, con enfoque cualitativo, recopiló datos a través de entrevistas, cuyo análisis se realizó mediante el procedimiento de núcleos de significado, basado en el materialismo histórico y dialéctico y la psicología de Lev Vygotsky y colaboradores. Las conclusiones indican divergencias en cuanto a la concepción de la creatividad; señalar la congruencia respecto a las dificultades materiales en el trabajo del tema; Destacar la falta de discusiones sobre el tema en los cursos de formación inicial y destacar las necesidades de formación que integren teoría y práctica, contribuyendo al desarrollo de la creatividad como función psicológica superior.

Palabras clave: Creatividad. Formación de profesores. Práctica pedagógica. Psicología histórico-cultural.

5 References

AGUIAR, W. M. J. de; OZELLA, S.. Núcleos de significação como instrumento para apreensão da constituição dos sentidos. *Psicologia, Ciência e Profissão*, Brasília, DF, v. 26, n. 2, p. 222-245, 2006. DOI: <https://doi.org/10.1590/S1414-98932006000200006>.

AGUIAR, W. M. J. de; OZELLA, S. Apreensão dos sentidos: aprimorando a proposta dos núcleos de significação. *Revista Brasileira de Estudos Pedagógicos*, Brasília, DF, v. 94, n. 236, p. 299-322, 2013.

AGUIAR, W. M. J. de; SOARES, J. R.; MACHADO, V. C. Núcleos de significação como instrumento para apreensão da constituição dos sentidos. *Cadernos de Pesquisa*, São Paulo, v. 45, n. 155, p. 56-75, jan./mar. 2015. DOI: <https://doi.org/10.1590/S1414-98932006000200006>.

ALENCAR, Eunice. M. L. S. *Criatividade*. Brasília, DF: Editora Universidade de Brasília, 1993.

AMABILE, T. M. *Creativity in context: update the social psychology of creativity*. Boulder, CO: Westview, 1996.

ANTUNES, L. R; SILVA, A. H.; FLECK, C. F.; GALANOS, A. K. Podemos marcar um meet? Reflexões sobre os usos da entrevista não presencial como técnica de coleta de dados. *Revista Pesquisa Qualitativa*, [S. l.], v. 11, n. 27, p. 561–583, 2023. DOI: <https://doi.org/10.33361/RPQ.2023.v.11.n.27.591>.

BRASIL. *Diretrizes Curriculares Nacionais da Educação Básica*. 2013.

Disponível em:

http://portal.mec.gov.br/index.php?option=com_docman&view=download&alias=13448-diretrizes-curriculares-nacionais-2013-pdf&Itemid=30192. Acesso em: 9 jan. 2025.

BRASIL. *Base Nacional Comum Curricular*. Brasília, DF, 2017. Disponível

em: [https://www.gov.br/mec/pt-br/escola-em-tempo-](https://www.gov.br/mec/pt-br/escola-em-tempo-integral/BNCC_EI_EF_110518-versaofinal.pdf)

[integral/BNCC_EI_EF_110518-versaofinal.pdf](https://www.gov.br/mec/pt-br/escola-em-tempo-integral/BNCC_EI_EF_110518-versaofinal.pdf). Acesso em: 9 jan. 2025.

BRAGA, N. P. *Processo criativo e práticas docentes na percepção de professores da Educação Superior*. 2019. 201f. Tese (Doutorado em Processos de

Desenvolvimento Humano e Saúde) – Instituto de Psicologia, Universidade de Brasília, Brasília, DF, 2019.

CSIKSZENTMIHALYI, M. *Fluir: a psicologia da experiência ótima e medidas para melhorar a qualidade de vida*. Lisboa: Relógio d'Água Editores, 2002.

DAVOLI, M. Documentar processos, recolher sinais. In: MELLO, S. A.;

BARBOSA, M. C. S.; FARIA, A. L. G. de. *Documentação pedagógica: teoria e prática*. São Carlos: Pedro & João Editores, 2020. p. 27-42.

GENTILI, P. O direito à educação e as dinâmicas de exclusão na América Latina. *Educação e sociedade*, Campinas, v. 30, n. 109, p. 1059-1079, set./dez., 2009. DOI: <https://doi.org/10.1590/S0101-73302009000400007>.

GUILFORD, J. P. Creativity. *American Psychologist*, v. 5, p. 444-454, 1950.

LEONTIEV, A. N. Os princípios psicológicos da brincadeira pré-escolar. In:

VYGOTSKY, L. S.; LURIA, A. R.; LEONTIEV, A. N. *Linguagem, desenvolvimento e aprendizagem*. São Paulo: Ícone, 2001. p. 119-142.

MARCOLINO, M. *Significações atribuídas por professoras da pré-escola ao desenvolvimento da criatividade*. 2023. 304f. Dissertação (Mestrado em Educação), Universidade Federal de São Paulo, Guarulhos, SP, 2023.

OLIVEIRA, L.H.M de P.; CERICATO, I. L. Significações da formação continuada para o professor coordenador. *Atos de Pesquisa em Educação*, v.17, n. 1, p. e9862, 2022. DOI: <https://doi.org/10.7867/1809-03542022e9862>.

SÃO PAULO (SP). Secretaria Municipal de Educação. Coordenação Pedagógica. *Currículo da Cidade: Educação Infantil*. São Paulo: SME/COPED, 2019.

SÃO PAULO (SP). *Instrução Normativa* Secretaria Municipal de Educação – SME n.º 28, de 29 de agosto de 2024.

SILVA, J. C.; MENDOZA, H. J. G.; CHIRONE, A. R. da R.; EDA, A. A. A. de S. Criatividade e desenvolvimento do pensamento criativo nos estudos de Torrance, Ostower e Majmutov. *Research, Society and Development*, Vargem Grande Paulista, v. 3, n. 1, p. 19-32, 2016.

STERNBERG, R. J.; LUBART, T. I. *Defying the crowd cultivating creativity in a culture of conformity*. New York: The Free Press, 1995.

TORRENCE, E. P. *The Torrance tests of creative thinking norms*. Technical Manual Research Edition. Princeton: Personnel Press, 1966.

VÁZQUEZ, A. S. *Filosofia da práxis*. Rio de Janeiro: Editora Paz e Terra, 1968.

VIGOTSKI, L. S. *A formação social da mente*. São Paulo: Martins Fontes, 2007.

VIGOTSKI, L. S. *Imaginação e criação na infância: ensaio psicológico*. Tradução Zoia Prestes. São Paulo: Ática, 2009. (Livro para professores).

VIGOTSKI, L. S. *Psicologia, educação e desenvolvimento*. Escritos de L. S. Vigotski. Organização e tradução Zoia Prestes. São Paulo: Expressão Popular, 2021.

WEISZ, T. *O diálogo entre o ensino e a aprendizagem*. São Paulo: Ática 2003.

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