REFLECTIONS ON THE BNCC IN ELEMENTARY EDUCATION: CONCEPTUAL APPROACH TO THE COGNITIVE DIMENSION AND THE NEED FOR METAMORPHOSIS

REFLEXÕES SOBRE A BNCC NO ENSINO FUNDAMENTAL: ABORDAGEM CONCEITUAL DA DIMENSÃO COGNITIVA E A NECESSIDADE DA METAMORFOSE

REFLEXIONES SOBRE LA BNCC EN LA EDUCACIÓN PRIMARIA: ENFOQUE CONCEPTUAL DE LA DIMENSIÓN COGNITIVA Y LA NECESIDAD DE METAMORFOSIS

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How to reference this paper:

LEMES, S. S. Reflections on the BNCC in Elementary Education: Conceptual approach to the cognitive dimension and the need for metamorphosis. **Nuances: Estudos sobre Educação**, Presidente Prudente, v. 35, n. 00, e024003, 2024. e-ISSN: 2236-0441. DOI: https://doi.org/10.32930/nuances.v35i00.10407

| **Submitted**: 23/01/2024
| **Revisions required**: 29/02/2024
| **Approved**: 19/03/2024
| **Published**: 22/12/2024

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ABSTRACT: Proposed as part of a broader study and in pursuit of theoretical deepening, this work questions, discusses, and reflects on some concepts and foundations presented by the BNCC regarding structural issues and the current school model. In this direction and sense, the text seeks, in the light of a reflective theoretical exploration, to analyze the complexity of this instrument, both conceptually and as a guideline for primary schooling, guiding pedagogical practices in the daily routine of schooling. It considers an inevitable incompleteness due to the gap between its idealized formulation and the structural reality in which it will be applied, since it was instituted to ensure the learning and development rights of students, in accordance with the National Education Plan. The conceptions of learning and development oriented by ethical, political, and aesthetic principles that aim at integral human formation and the construction of a just, democratic, and inclusive society impose a strong critical stance due to their operational complexity and the insufficiency of the institutional model in the face of the educational system's "desire," at its limit, to continuously seek to overcome inequalities in schooling and its effectiveness in the school unit by these principles.

KEYWORDS: BNCC. Elementary school. Basic schooling. Cognitive dimension.

***RESUMO**: Proposto como parte de um estudo mais abrangente e em busca de um aprofundamento teórico, este trabalho questiona, discute e reflete sobre alguns conceitos e fundamentos apresentados pela BNCC em relação às questões estruturais e ao modelo de escola vigente. O texto, nessa direção e sentido, procura, à luz de uma exploração teórica reflexiva, analisar na complexidade desse instrumento, tanto conceitual como de direcionamento para a escolarização básica, o pautar do fazer pedagógico no cotidiano da escolarização. Considera certa incompletude pela distância existente entre a sua formulação idealizada e a realidade estrutural na qual será aplicado, uma vez que fora instituído para que, os escolarizados, tenham assegurados seus direitos de aprendizagem e desenvolvimento, em conformidade com o que preceitua o Plano Nacional de Educação. Considera as concepções de aprendizagem e desenvolvimento que se apresentam orientados pelos princípios éticos, políticos e estéticos que visam à formação humana integral e à construção de uma sociedade justa, democrática e inclusiva, impõem uma forte criticidade por conta de sua complexidade operacional e a insuficiência do modelo institucional frente ao "desejo" do sistema educativo, no limite, de buscar permanentemente a superação das desigualdades na escolarização e sua efetividade na unidade escolar por esses princípios.*

***PALAVRAS-CHAVE**: BNCC. Ensino fundamental. Escolarização básica. Dimensão cognitiva.*

***RESUMEN**: Propuesto como parte de un estudio más amplio y en busca de cierta profundidad teórica, cuestiona, discute y reflexiona sobre algunos de los conceptos y fundamentos aportados por el BNCC frente a las cuestiones estructurales y al modelo de escuela que tenemos. El texto, en esta dirección y sentido, busca, en este camino y a la luz de una exploración teórica reflexiva, analizar la complejidad de este instrumento, tanto conceptual como de orientación de la escuela básica, pues orienta la práctica pedagógica en la cotidianidad escolar. Considera cierta incompletitud por la distancia entre su formulación idealizada y la realidad estructural en la que se aplicará, ya que fue instituido para que los escolares tuvieran garantizados sus derechos de aprendizaje y desarrollo, de acuerdo con el Plan Nacional de Educación. Considera las concepciones de aprendizaje y desarrollo, orientadas por principios éticos, políticos y estéticos dirigidos a la formación humana integral y a la construcción de una sociedad justa, democrática e inclusiva, e impone una fuerte crítica debido a su complejidad operativa y a la insuficiencia del modelo institucional frente al "deseo" del sistema educativo, en el límite, de buscar permanentemente la superación de las desigualdades en la escolarización y su eficacia en la unidad escolar a través de estos principios.*

***PALABRAS CLAVE**: BNCC. Enseñanza primaria. Escolarización básica. Dimensión cognitive.*

Introduction

The National Curricular Common Base (BNCC)[2] (Brasil, 2018) as a *normative document*, is also *one of the state's instruments* of action that *defines and guides* the organic and progressive set of essential learning that all students must develop throughout the stages and modalities of Basic Education, ensuring their rights to *learning and development*, in accordance with the guidelines of the National Education Plan (PNE)[3] (Brasil, 2014). This normative document applies exclusively to school education, as defined in § 1 of Article 1 of the National Education Guidelines and Bases Law (LDB, Law No. 9,394/1996) (Brasil, 1996), and is guided by ethical, political, and aesthetic principles aimed at integral human formation and the construction of a just, democratic, and inclusive society, as grounded in the National Curricular Guidelines for Basic Education (DCN) (Brasil, 2013). The applicability of this instrument of public action implies a profound *reorientation* (transformation) in the dynamics of basic schooling in Brazil.

[2] In this article, the National Curricular Common Base will be permanently referred to as BNCC, as this acronym is widely disseminated in literature and various media outlets in Brazil.
[3] Discussions for the revision and proposition of the National Education Plan (PNE) for 2024 will commence this year, in 2023.

This discussion proposes a reflection on the conditions and possibilities of understanding, relevance, and criticality of certain fundamentals and concepts highlighted in the BNCC (Brasil, 2018). This article will discuss themes and concepts with an emphasis on the issue of development in schooling, considering the potential for the action of school units and their effectiveness, as it is considered that no systemic proposition for education can achieve significant success if it is not first achieved in the classroom within the scope of the school unit. It also proposes the development of these discussions and analyses based on excerpts from the fundamentals presented by the BNCC (Brasil, 2018), which are established as guiding principles of actions of great theoretical, operational, and instrumental complexity, lacking institutional and functional structure for their viability. Issues of learning and development were highlighted, considering that this is:

> [...] a normative document that defines the organic and progressive set of essential learnings that all students must develop throughout the stages and modalities of Basic Education, so that they have ensured their rights to learning and development, in accordance with the guidelines of the National Education Plan (PNE) (Brasil, 2018, p. 7, our translation).

From this context, one must infer the conditions of operational instrumentality, which require continuous observation and discussion due to the centripetal nature of its dynamics, from the system to the everyday life of the school unit. The pedagogical dimension in these principles acquires a hyperdimensionality with the imperative to reinterpret the pedagogical act, redefine the recognition of the rights of others, and a deeply established structural *mindset*. In this context, inclusive schooling will necessarily assert the need for recognition through the embrace of cultural diversity, territoriality, and diversity. The requirements to meet these demands entail changes, knowledge, and understanding in paradigmatic, cultural, and structural dimensions.

Cultural diversity, territoriality, and diversity are not naturally established components in the institutionalized school model, where the reproductive (representational[4]) environment is hardly attentive to these components. The school, as a complex environment for dialogue and education, imposes a frequent (and perhaps permanent?) redefinition of pedagogical practices through daily discussions and debates. It is essential to consider the ethics of discussion and debate, as well as reflections on the minimal conditions and possibilities for mutual

[4] This author has reflected on this as seeming more appropriate when adjectivizing the school in its daily pedagogical practice. We will address this issue more broadly at another time.

understanding in verbal exchange situations. The basic premise of these interactions is respect, attention, and interest in the interlocutors and the content under discussion.

Theorized, particularly by Habermas and Karl-Otto Apel, with the aim of formulating norms that allow for satisfactory debate, these authors also affirm that, in a certain interpretation of the ethics (or theory) of discussion, the advocacy for debate is also clear in professional politics and the educational world. Presented more precisely, this theory (or ethics) shows that official *argumentation is unacceptable* since, democratically, one cannot accept a determinant standard that is not open to discussion and cannot ignore examining how the author originally formulated it and draw attention to its difficulties. This article assumes that only the effective exercise of dialogue enables the implementation of norms grounded in reason, exposing its complexity. Thus, it appropriates the theory of discussion as an instrument that allows combating axiological skepticism and legal positivism that "[...] invested the cultural system in its educational dimension and penetrated daily consciousness" (Jaffro, 2001, p. 71-85, our translation).

The BNCC (Brasil, 2018) highlights the importance of developing competencies in students, going beyond the accumulative proposition of information and notably reductionist content. These competencies are configured by skills, knowledge, and attitudes that enable students to mobilize themselves in real situations, solve problems, make decisions, communicate effectively, and deal with the different challenges of the contemporary world. In Opinion CNE/CP No. 15/2017, approved on 12/15/2017 (Brasil, 2017), the National Council expresses that the referred general competencies reaffirm the commitment of Brazilian education to the demands of contemporary society, since communication, creativity, analytical-critical thinking, participation, productivity, ethics, and responsibility require much more than the *accumulation of information* (emphasis added by this author).

In this context, the BNCC (Brasil, 2018) recognizes that Basic Education must aim at holistic human formation and development, which implies breaking with reductionist and meritocratic views that privilege the intellectual dimension (memoristic-cognitive), to the detriment of other relational dimensions fragmented and scattered throughout the schooling process. These general competencies are intrinsically linked to essential learnings, which are the content, knowledge, and skills that "*everyone needs to acquire*" during their trajectory in basic schooling. They represent a core of fundamental and indispensable knowledge for

students' formation. These essential learnings must be defined and established for each stage of basic education (Early Childhood Education, Elementary Education, and High School)[5].

The idea of essential learning is to ensure that all students have access to a minimum set of knowledge that is considered fundamental and structuring for the development of a solid conceptual and foundational base in different areas of knowledge. It is essential to highlight that the institutional model and/or structural changes are undergoing transformation through state action instruments on the system; however, little (or almost nothing) has yet happened in the actions and dynamics of schooling. Thus, the content-based, reductionist, and reproductive approach still predominates in the daily pedagogical practice at schools. Schooling undergoes *metamorphosis* while the school remains in a state of structural and institutional exhaustion.

In this circumstance, the cognitive (intellectual) dimension assumes a fundamental role as a condition for understanding the physical, social, symbolic, and digital world. This dimension implies the appropriation of scientific, philosophical, and computational/digital thinking, as well as the development of critical thinking, curiosity, and creativity. Additionally, it involves the ability to mobilize languages, codes, and technologies to acquire knowledge, communicate with others, and solve problems. These aspects should remain prioritized and decisive in the context of Brazilian schooling. The relationship between schooling and cognitive development is foundational for this process and for the role of the school in the intellectual formation and development of students.

The cognitive development of individuals dynamically interacts with the changes and advances that occur in mental structures over time. This process involves aspects such as perception, memory, attention, language, reasoning, problem-solving, and abstract thinking. Furthermore, the cognitive dimension presents differentiated components, as there are diverse cognitive styles regarding perception and the dynamics of information processing among individuals. There are approaches that take into account the sociocognitive dimension, which considers the interaction between social and cognitive factors in the process of learning and human development. In this context, it is also important to consider the political dimension of these differentiated psychological characteristics.

In specific discussions on this matter, some studies describe this construct, Cognitive Styles (CS), as the "*characteristics of how the individual organizes the environment*" (Lemes, 1998). Among the most important studies developed are those by Witkin, Asch, and collaborators, who defined Cognitive Styles as "[...] subtle and relatively stable ways in which

[5] Although not the subject of analysis in this article, we will specifically address this topic at another time.

the individual perceives, thinks, solves problems, learns, and relates to others" (Pennings, Span, 1991, p. 8, our translation). There are studies that consider, for example, cognitive styles referred to as field dependence and independence, described with clear affective/social implications (Smith, 1990). These conceptions indicate that the sociocognitive dimension recognizes the influence of social interactions, power relations, political structures, and cultural norms on cognitive development and knowledge acquisition. Including this dimension in dialogues about schooling, starting from early childhood education, implies a conception of

> [...] the child as a being who observes, questions, hypothesizes, concludes, makes judgments, assimilates values, and constructs knowledge, appropriating systematic knowledge through action and interactions with the physical and social world should not result in confining these learnings to a process of natural or spontaneous development (Brasil, 2018, p. 34, our translation).

In early childhood education, the curriculum is structured into Fields of Experience, which represent the contexts in which the child engages in activities guided by the conscious intervention of teachers. These fields constitute pedagogically planned environments in which the child describes, represents, and reorganizes experiences, using various criteria, and experiences these experiences in an integral and comprehensive manner. This enacted (concrete) action is of great cognitive value for learning, as it introduces symbolic-cultural systems and allows the child to navigate the multiplicity and diversity of stimuli and activities. They converge in the thematic cores that will be developed by various disciplines from the first year of basic education.

The transition from early childhood education to elementary school in Basic Education demands comprehensive attention from educators. The changes introduced in this process require a delicate balance between two distinct stages. This involves reducing the emphasis on predominant playfulness and introducing organizational formalization that ensures the integration and continuity of learning processes and emotional support. This transition must respect the specificities/singularities of each stage and the different ways in which they relate to knowledge, as well as the nature of specific mediations in each phase.

In this context, the implementation of welcoming and adaptation strategies is imperative, both for children and teachers. This enables the construction of the new educational stage based on the knowledge and skills already acquired by the child, maintaining a continuous perspective of educational development. Cooperation between the stages of early childhood

education and elementary school plays an essential role in this process and provides a solid bridge between the child's previous experiences and future academic demands, allowing the transition to favor a more solid educational process.

However, adequate planning is indispensable for effective integration, from both cognitive development (through processes of assimilation and accommodation) and organizational (in operational and instrumental terms), as well as socioemotional (considering aspects of reception and inclusion). Such articulation needs to be oriented towards the progressive systematization of experiences and the development of new ways of relating to the world, new possibilities for reading, interpreting, and formulating hypotheses about phenomena, testing them, refuting them, drawing conclusions, in an active attitude in the construction of systematized knowledge within the dynamics of schooling.

In the context of the BNCC, considering that "the characteristics of this age group demand work in the school environment that revolves around the interests expressed by children, their most immediate experiences so that, based on these experiences, they can progressively expand their understanding" (Brasil, 2018, p. 54-55, our translation), seems to indicate certain confidence in the formative process that enables educators to act in this environment, or that operational simplification for intervention in this dynamic is sufficient to meet this demand.

In this context, it is essential to understand these demands, inherent to this age group, which arise from "*the mobilization of increasingly complex cognitive operations and sensitivity to apprehend the world, express themselves about it and act in it*," thus highlighting the fundamental orientation for educational dynamics in schooling. Cacioppo and Petty (1982, 1985, 1986)[6], although without the specificity of age group, present studies on human cognition that translate as contributions of great importance to understanding the impacts of connections in social networks today. In the text "The Need for Cognition" (Cacioppo; Petty, 1986), they discuss the increasing complexity of information available to people involving the interconnections made possible (today) by social (and non-social) networks and their influence on human cognition, highlighting how people deal with the density of information, discernment, and decision-making processes in connection (almost immersion) with digital environments.

In addition to this conception, involving human cognition and development in the schooling process, the question arises: How does the increasing complexity of information

[6] Author's note: It is necessary to observe the relevance of the assertions made by the authors despite all the changes that the updates and advancements in this field present today.

available in this moment of intensified connections through social networks influence human cognition? How do people, in general, deal with this information overload and discernment in decision-making processes in a complex digital environment? Although this text does not have an exclusive focus on cognitive complexity, it is relevant to investigate how digital technologies impact the way we think and process complex information. Now there are new teachers, new spaces, new relationships, and other responsibilities [...], and there will be many changes in a short time and, furthermore, in a new era. There needs to be a *transition project* to enhance the competencies already acquired, as well as to assimilate and respect the characteristics of the child's age in their development, their enthusiasm, and their desire for new learning.

Benini and Pettignano (2020) consider the need to observe the heterogeneity of children who, despite their young age, have different life experiences and contexts. They also indicate the observation of the various previous experiences of children when they arrive at school, especially regarding the types of services they had access to during early childhood, such as their daycare centers or preschool environments.

After the transition period from Early Childhood Education to Elementary School in the first two years of this schooling, the BNCC (Brasil, 2018, p. 55, out translation) establishes that

> pedagogical action must focus on literacy, in order to ensure ample opportunities for students to appropriate the alphabetic writing system in an articulated way with the development of other reading and writing skills and their involvement in diversified literacy practices.

It becomes evident that the effectiveness of the process of constructing a literate student in two years, with the proper appropriation of the writing system, including literacy practices, is proposed. To do so, it is a process that involves cognitive, perceptual, motor, and socioemotional predisposition construction.

The question here is, what is the project for this pedagogical formation? With what operational and instrumental structure? Are the school units, in the "school model" that exists, equipped to meet this demand? And regarding the instrumental preparation for these actions, how to proceed? Beyond these questions, there are still the demands of cognitive complexity when considering the interactionist principles, among others, which underlie central conceptions of the BNCC (Brasil, 2018) and bring forth the concepts of development, socio-emotional development, global competence, and cognitive competence, assumed with a central character in its structure. The question at this point is about the effective conditions for those

questions to be answered, since in this institutional model, it seems that not all the necessary pedagogical actions fit for the expected outcome.

It is also observed that throughout Elementary Education, there is another period marked by a transition between the early years and the final years, characterized by greater formality, pedagogical and cognitive density, as well as content complexity. There is a need to appropriate the "different logics of organization of knowledge" in different areas (Brasil, 2018, p. 55, our translation). In view of these specificities, it is essential, in the various curricular components, to revisit and resignify the learning and the knowledge itself involved in Elementary Education, Initial Years in the context of different areas, aiming at deepening and expanding the conceptual and linguistic repertoires of the students.

In schooling, during the early years, the progression of knowledge occurs through a combination of pedagogical factors aimed at consolidating previous learning, expanding language practices, and enriching children's aesthetic and intercultural experiences. In the final years, the various curriculum disciplines revisit and reinterpret learning processes within the context of different areas, promoting the "deepening and expansion of students' repertoires" (Brasil, 2018, p. 56, our translation). This means that pedagogically working on the autonomy of these adolescents should enable them to acquire conditions and tools to interact, from a critical perspective, with different knowledge and sources of information. Young people at this stage are in a transitional age range, "[...] between childhood and adolescence, marked by intense changes resulting from biological, psychological, social, and emotional transformations" (Brasil, 2018, p. 56; Brasil, 2010).

In this sense and context, it is necessary to emphasize the nature of this school dynamic as complex interactions, and therefore, its influence may vary among different school units, localities (municipalities), regions, and territorialities. The results depend on practical implementation and attention to these interactions and the different factors that act within them, along with adequate monitoring and continuous adjustments to ensure the effective benefits of learning to students.

The available academic productions on concepts of cognitive development impress with the complexity and variety of themes they cover, given their diverse origins: cognitive sciences, neurobiology, curriculum, literacy and numeracy learning and teaching, child self-regulation, disorders in different contexts, good practices, teacher training, and assessment (Renabe, 2020, p. 10). Despite the complex contents, these productions are presented in relatively clear

language, and as far as possible and accessible, fulfill their purpose in terms of scientific dissemination.

However, it is important to consider that translating this knowledge operationally and instrumentally for pedagogical application in schooling, and thus promoting learning and enhancing student performance, requires a certain distance and significant effort. For this purpose, the needs of educators as dynamizers and mediators of knowledge encompassing an attitude towards the world and themselves, an attitude, and a way of performing tasks are emphasized. This implies that perspectives and beliefs influence how we perceive and interpret information and knowledge around us (Kastrup, 2009).

This perspective suggests that the cognitive dimension, in the context of studying knowledge and the underlying mental processes of learning and development, cannot be considered merely a technical issue or an isolated theoretical problem but also has relevant political implications. Our perceptions and interpretations, shaped by our political positions and attitudes, have the potential to influence how we perceive, understand, and interact with the world around us.

By considering the National Common Curricular Base (BNCC) as a tool of public action, a political dimension in the cognitive sphere is highlighted, beyond its instrumentality and operationality. From this perspective, cognitive issues are not limited to the study of knowledge and underlying mental processes; they also involve broad psychological, social, and cultural implications, as well as political dimensions.

What is perceived and interpreted shapes postures and attitudes and has the potential to influence how one understands and interacts with the world in the perceived experiential reality of everyday life. To meet these demands effectively, it is necessary to inquire about what project for teacher training and performance should be developed? What is the extent of institutional support for its realization? What is the possibility of educators' engagement with continuity in basic schooling? What support network is available? Among other questions that may (and will) arise. Here, all support for strong leadership at the levels of school units and local (municipal) levels is essential for the successful implementation of structuring programs of this complexity.

Educators, in general, with special emphasis on teachers, play a critical role in implementing the BNCC (Brasil, 2018). For this, it is essential that these educators receive adequate support and have opportunities for professional development. This allows them to understand the principles, standards, and objectives of the BNCC, apply pedagogical practices operationally and instrumentally, and develop qualified action strategies in this direction.

For this to happen, educators need to receive frequent/continuous support and improvement regarding the pedagogical practices proposed in this National Base. Thus, they will be better prepared to meet expectations and effectively welcome and guide learning. Operational support for school leaders who understand and prioritize pedagogical practices and BNCC management is essential to provide support to teachers and other segments of educators involved. This support aims to promote a favorable school culture that supports the objectives and standards outlined in the BNCC, which can drive qualified implementation of the structural elements in current schooling. Although the BNCC defines the curriculum components, conceptual contents, and minimum foundations as determinants, it is essential to emphasize that how these elements are dynamized in school units and classrooms can be crucial for the success and effective *impact* of schooling on citizenship development and preparation for social and professional life.

Effective implementation requires clear communication through reflective, constructive, and critical dialogue, supported by educational leadership and multiple instructional and operational strategies in action. However, questions still remain, such as: does the school model have structural elements to meet these needs? How to think about the school (or schooling) at this moment and guide its future? In the literature, there are texts that seek to address the widely shared perception that the school needs to undergo a profound transformation. However, these texts are generally inadequate, unengaging, and lack solid analyses, often weak in presenting arguments grounded in critical thinking.

Most projections in situational reports on schooling point in this direction and reference the changes in society favored by the dynamics of communication, the virtualization of social and work relations, and the new parameters, in this context, of cognitive development. These assertions seriously question the current logic of schooling and learning (Nóvoa, 2022). The schooling environment still contains deep roots in a structural pattern that carries within it persistent historical woes of a system that proves incapable of addressing its vital problems, thus tending towards degradation until disintegration. However, the school, in schooling, can become a metasystem capable of addressing its problems by metamorphosing, where the likely outcome is disintegration; the unlikely, yet possible, outcome is metamorphosis (Morin, 2010).

The BNCC (Brasil, 2018) discomforts by offering itself as (one of) the cocoon, and the school needs courage for metamorphosis, since, in this context, education does not exist without the presence of the school, and one should not embrace the idea of the school's disintegration or reducing education to mere learning. It is essential to incorporate at the core of the

transformation of schooling the principles of diverse societies, bringing them into the DNA of the constantly evolving educational process. This implies creating a school environment that embraces and processes differences in all their forms and orders. It is not about envisioning a utopian or dystopian future, near or far. Instead, it is about reflecting on the future of education, the school, and schooling through the analysis of current trends in educational policies.

However, the consideration of futures in the educational context has been neglected in the main streams of research, both in sociology theorizations and in cognitive sciences focused on education (Nóvoa, 2022; Young, 2009a; 2009b; Young; Muller, 2009). Such activities have been widely developed by education specialists, who generally have paid little attention to sociological debates and cognitive sciences that have been developing and focusing on current social changes and on how knowledge is understood within these debates (Young, 2009b; Young; Muller, 2016). In this approach, there is a growing mismatch between schools (and schooling) and global changes in society, as the formal education system, and school units in particular, systematically resist change.

The perspective for schooling in these scenarios indicates the need to abandon what is seen as a past imbued with persistent anachronisms and to embrace the more general and updated trends fostered by civilizational processes, which, through new knowledge and dynamics of relationships, allow greater flexibility and openness to change by individuals and, consequently, for contemporary society (Young; Muller, 2016).

These reflections, presented here, seek to clarify points that require further exploration in the debates about elementary education and the BNCC for the schooling context. Bernstein (1996; 2000), in examining schooling, argues that it is influenced by organizational, linguistic, and cultural factors and highlights the structural importance and policies for education in how knowledge is transmitted and assimilated in this environment. This author argues that schooling should not only be seen as a pedagogical issue but also as a structural, physical, organizational, and management issue, as this task goes far beyond pedagogical practice.

It's not just about teaching, but about creating a safe and welcoming physical environment for students, ensuring an effective organizational structure that promotes participation for all, and implementing educational management that provides adequate and equitable resources for learning (Nóvoa, 2022). The BNCC attributes a significant role to pedagogical actions, which are directly related to teaching practice. Therefore, we cannot conclude a reflection based solely on teacher training. While training is an essential component of innovation, it cannot be the sole focus of the proposed process. The system must evolve in

the same direction, providing support and necessary resources to teachers. Otherwise, there is a risk of leaving them in an environment that is not adequately prepared to receive them.

In this suitable environment, objects of knowledge are essential elements for the development of schooling. "*Powerful*" knowledge is transformative, dialogic, and inspired as in the ideas of Paulo Freire. Schooling is redefined in a shared and powerful environment of access to this knowledge which, supported epistemologically and legitimized through learning communities and inter-institutions, becomes imperative for the evolution of education and offers us a certain ontological/epistemological security of the knowledge we distribute.

New educational environments redefine the boundaries of knowledge, making the search, creation, and acquisition of new knowledge an essential condition. The science of education must assimilate "*neuropedagogy*" and the digital dimension as an integral part of its structure, "*deindividualizing*" and enriching relationships with knowledge. The legitimacy of knowledge is achieved through learning communities, requiring our ongoing connection with universities, research institutions, and knowledge production beyond their borders. These are forward-looking reflections for a possible scenario yet to emerge.

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CRediT Author Statement

- **Acknowledgements**: Not applicable.
- **Funding**: Not applicable.
- **Conflicts of interest**: There are no conflicts of interest.
- **Ethical approval**: Not applicable.
- **Data and material availability**: This is a theoretical work, and all materials used can be found in the references.
- **Authors' contributions**: Sole author.

Processing and editing: Editora Ibero-Americana de Educação.
Proofreading, formatting, normalization and translation.