


# Curricular Reformulations of the New High School in Mathematics: A Documentary Analysis of the State of Paraná

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## ABSTRACT

**Context:** With the approval of Law No. 13,415/2017 and Resolution CNE/CP No. 4/2018, Brazilian states were compelled to reformulate their high school curricula, aligning them with the new guidelines established by the National Common Core Curriculum. **Objectives:** Given this scenario, this article aims to analyze the curricular reformulations of the New High School in the Mathematics component in the state of Paraná, in light of Historical-Cultural Theory and the dialectical categories of content and form. **Design, environment, and participants:** Based on the perspective of Historical-Dialectical Materialism, the study understands educational reforms as an expression of the contradictions of the capitalist system, which subordinates education to market demands to the detriment of comprehensive human development. This is a qualitative and documentary research study, focused on the critical analysis of the Paraná curriculum framework. **Data collection and analysis:** Based on the theoretical categories adopted, it is observed that the curriculum proposals analyzed reinforce a pedagogical conception guided by competencies and skills, emptying school content and compromising the social function of the school. **Results:** The results show a shift in mathematics teaching towards an instrumental and utilitarian model, which weakens the development of theoretical thinking and access to systematized scientific knowledge. **Conclusions:** The study reveals that reforms, under the discourse of flexibility, have led to a shift towards an instrumental and utilitarian model of mathematics teaching, which weakens the development of theoretical thinking and access to systematized scientific knowledge.

**Keywords:** High School Reform; Mathematics Curriculum; Historical-Cultural Theory; Content and form; Common National Curriculum Base.

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## INTRODUCTION

The enactment of Law No. 13.415/2017 (Brasil, 2017) and Resolution CNE/CP nº 4/2018 (Brasil, 2018b) marked a new chapter in Brazilian educational policy by instituting structural changes in High School and regulating the National Common Core Curriculum (BNCC) for this stage of basic education. Based on these new guidelines, Brazilian states were compelled to reformulate their curricula, promoting alignments that go beyond pedagogical issues and enter the field of ideological, political, and economic disputes. It is in this context that this article is inserted, whose purpose is to understand how these reformulations materialize in the Mathematics curriculum component in the state of Paraná, in light of Historical-Cultural Theory.

The relevance of this study is not limited to the analysis of a set of official documents but extends to understanding the role that public schools play in educating young people in a society marked by profound social inequalities. The debate surrounding the New High School goes beyond the boundaries of curriculum organization and reaches the sphere of social justice, since it determines the conditions of access to scientific knowledge and, consequently, the possibilities for intellectual and political emancipation of students. In this sense, critically analyzing state curricula, especially in the Mathematics component, helps to reveal the limits and contradictions of the reform, as well as to support discussions about alternatives that reaffirm the social function of schools.

The choice of this theoretical-methodological framework is not random. Based on Historical-Dialectical Materialism, Historical-Cultural Theory offers analytical tools for critically interpreting educational policies as expressions of the contradictions inherent in the capitalist mode of production. From this perspective, education is not conceived as neutral or technical, but as a historically determined social practice, influenced by class interests and specific societal projects. The dialectical categories of content and form play a central role in this analysis, allowing us to grasp the essence of curricular documents beyond their normative appearance.

Understanding the curriculum as an inseparable unity of content and form implies rejecting fragmented views of pedagogical practice that subordinate school knowledge to merely instrumental skills. The pedagogy of skills, strongly associated with the motto “learning to learn”, is, in this context, a normative orientation that reduces school education to the adaptation of individuals to market demands, emptying its formative potential. This

perspective is criticized by authors such as Duarte (2006, 2016) and Saviani (2016), who advocate for an education focused on the appropriation of knowledge systematized and historically produced by humanity as a condition for the development of theoretical thinking and critical consciousness.

The High School reform, implemented in 2017, institutionalizes this model by reconfiguring the curriculum structure, expanding the space allocated to educational pathways and social-emotional skills at the expense of academic content. Although the discourse of the National Common Core Curriculum for High School (BNCCEM) evokes youth leadership and the valorization of multiple expressions of youth, a critical analysis reveals that these guidelines reinforce a utilitarian conception of education, aimed at training flexible individuals who are adaptable to the dynamics of the labor market. This movement highlights a break with the social function of schools as spaces for the mediation of scientific knowledge and comprehensive education.

The choice of the state of Paraná as the empirical focus of this investigation is justified both by the relevance of its educational system and by the central role assigned by the State Department of Education to the implementation of national guidelines. Paraná has a tradition of formulating its own educational policies, which allows us to observe how the normative discourse of the BNCCEM articulates, adapts, or conflicts with local specificities. Thus, analyzing the Paraná curriculum framework makes it possible to identify how the principles and contradictions that permeate the national High school reform are materialized at the state level.

Given this, it is urgent to examine how the different states have been implementing these guidelines and to what extent their curriculum documents reproduce or resist the provisions of national policy. The research proposed here focuses on the state of Paraná, analyzing its High School curriculum references with a focus on Mathematics. The documentary analysis, guided by the categories of content and form, seeks to identify the conceptions of knowledge and education expressed in the documents, highlighting their ideological foundations and their implications for student education.

Thus, this article aims to analyze the curricular reformulations of the New High School Mathematics curriculum in the state of Paraná, in light of Historical-Cultural Theory and the categories of content and form. To this end, it adopts a qualitative approach, based on documentary research, in order to reveal the underlying meanings of normative texts and examine how the mediations established between educational policy, state curricula, and teaching-learning processes are structured. Ultimately, the aim is to contribute

to the debate on the social function of schools and on possible paths for building a truly formative, critical, and emancipatory education.

### **THE CATEGORIES OF CONTENT AND FORM IN HISTORICAL-CULTURAL THEORY**

Historical-Cultural Theory is based on Historical-Dialectical Materialism, developed by Karl Marx (1818-1883) and Friedrich Engels (1820-1895) in the 19<sup>th</sup> century. From this perspective, “categories and laws are degrees of development of scientific knowledge and social practices, conclusions drawn from the history of the development of science and practical activity (Cheptulin, 1982, p.3). The categories of content and form exemplify this principle, constituting an inseparable dialectical pair, as Krapívine (1986, p. 190) explains:

Every phenomenon, every thing has its content and its form. Content is the set of elements, aspects, processes, and their relationships that constitute the basis of the object’s existence and determine the development and succession of its forms. Form is the mode of organization and existence of content, the internal and peculiar connection of the elements, aspects, and processes of this content that gives integrity in its relations with external conditions.

Based on Historical-Cultural Theory, it is understood that schools have the essential role of socializing the knowledge historically produced by humanity. In this context, the unity between the categories of content and form is essential to pedagogical practice. As Claudino-Kamazaki, Asbahr, and Mesquita (2018, p. 170) emphasize, “the way of teaching and the content to be taught must form a unity. You cannot teach just any content, and content cannot be taught in just any way”.

According to Duarte (2006), school content is human objectification, and by teaching it, teachers convey worldviews that encompass values about life, society, nature, and people. This knowledge reflects the inseparable relationship between the individual and the collective, since even innovative views express the historical insertion of individuals and their contradictions. Based on this understanding, teaching is therefore educating; it is enabling the mastery of a worldview that allows individuals to understand reality, which implies the appropriation of culture.

By applying the categories of content and form to curriculum analysis, it is possible to understand that the emptying of school content compromises

not only the theoretical dimension of education, but also the possibility for students to develop higher forms of thinking. This means that it is not enough to offer a formally structured curriculum if the content transmitted does not express the scientific knowledge accumulated historically. The dissociation between content and form, in this sense, results in an impoverished pedagogical practice that privileges the appearance of innovation at the expense of the essence of critical and emancipatory learning.

In this regard, Leontiev (1978, p. 274) emphasizes that

[...] inequality among men does not stem from their natural biological differences. It is the product of economic inequality, class inequality, and the resulting diversity of their relationships with the acquisitions that embody all the aptitudes and faculties of human nature, formed in the course of a socio-historical process.

The worldview presented here differs from that advocated by educational assumptions centered on the motto “learning to learn”. According to Duarte (2006, p. 29), this motto is understood “as an emblem of the pedagogical ideals of the Escola Nova movement”<sup>1</sup>, which remained present in Brazilian pedagogical thinking. Furthermore, the dissemination of Jean Piaget’s epistemology and genetic psychology as a reference for education in the 1980s and 1990s was an important factor in the revitalization of the “learning to learn” pedagogy.

Piaget himself referred to the importance of the motto “learning to learn” in school education when, in his book *The Child and Reality: Problems of Genetic Psychology*, he analyzed the determining factors of intellectual development and pointed out the existence of four factors: heredity, which produces internal maturation; the individual physical experience of the child who engages with objects; social transmission, considered by Piaget as the educational factor; and, as the fourth and main factor of intellectual development, Piaget (Duarte, 2006, p. 33).

Based on the values underlying this motto, emphasis is placed on processes and methods, in line with competency-based psychology – which is

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<sup>1</sup> For further study, see: Saviani, D. (2008). *História das ideias pedagógicas no Brasil* (2<sup>nd</sup> ed.). Autores Associados.

one of the strands of “learning to learn” pedagogy – promoting the separation between “the process of the product, the form of the content” and reducing “the relationship between thought and action to everyday utilitarianism” (Duarte, 2016, p. 119).

This tension manifests itself daily in teaching work, as teachers are constantly challenged to reconcile the demand to develop instrumental skills with the responsibility of ensuring the appropriation of scientific concepts. The official discourse of valuing flexibility and personalization in teaching tends to transfer to teachers the task of adapting to curricular changes that, for the most part, were not democratically constructed.

Thus, the unity between content and form is not only a theoretical issue, but also a principle that guides concrete pedagogical choices, with direct implications for how schools fulfill, or fail to fulfill, their social function. As outlined in Figure 1, this dynamic contributes to the maintenance of the capitalist system, since the social function of schools is to prepare students for a constantly changing society. Therefore, teachers are called upon to adapt and actively participate in these processes of change.

**Figure 1**

*Valuative positions contained in the motto “learning to learn”. Prepared by authors based on Duarte (2006)*



The values underlying the motto “learning to learn” contrast with the assumptions of Historical-Cultural Theory, which emphasizes the dialectic

between content and form. In this vein, Martins (2016) states that educational activity is characterized by the teaching of scientific concepts, which differ from spontaneous concepts. Although habits and skills promote the ability to establish relationships, they are not equivalent to or a substitute for the systematic teaching of theoretical concepts. Human beings develop their abilities by achieving objectives, which always involves analysis, synthesis, and generalization (Martins, 2016, p. 19).

The social function of schools, from a Historical-Cultural Theory perspective, consists of teaching scientific concepts, as these enable the development of theoretical thinking – the foundation of human education. In line with this concept, Claudino-Kamazaki, Asbahr, and Mesquita (2018) affirm that the school curriculum advocates the inseparability of content and form, with the aim of developing students' higher psychological functions. This implies that the organization of the curriculum needs to consider the essential content of each area of knowledge, providing new generations with the opportunity to appropriate the fundamental human objectives for their intellectual development.

However, under the assumptions of competency-based psychology – one of the strands of “learning to learn” pedagogy – the curriculum tends to become “[...] emptied of content, as it would not be an organized teaching program, but a space for experiences and the expression of narratives” (Ramos & Paranhos, 2022, p. 8). From this perspective, learning is considered valid to the extent of its applicability and relevance to individual experiences.

In this sense, according to Moura (2017), the curriculum can be conceived as a means of implementing a political project, which highlights the need to understand the consequences of curriculum design. An essential step in this process is to analyze the relationship between content and form in curriculum documents, an aspect that will be explored in greater depth in the following sections.

## **THE CURRICULUM ORGANIZATION OF THE NEW HIGH SCHOOL**

The proposal to reform high school in the context of Brazilian educational policy began with Provisional Measure No. 747/2016. Becker and Andrade (2024) point out that its presentation was authoritarian, generating intense controversy in the educational community and culminating in the movement *Ocupa Escolas*, which triggered the occupation of public institutions in several states in the country. Although student mobilization represented

significant resistance, the movement did not prevent the measure from becoming Law No. 13,415/2017, which amended Article 36 of Law No. 9,394/1996 and determined that the High School curriculum now consists of the BNCC and training itineraries.

According to Frigotto (2016, p. 331), students from the movement Ocupa Escolas demanded “decent conditions for studying and feeling comfortable in the school environment”. For the author, the reform represented a frontal attack on the 1988 constitution and the National Education Guidelines Law (LDB), which guarantee the universality of high school as the final stage of basic education. Frigotto (2016, p. 329) points out that the proposal defended by the group that “took power from the Brazilian state through a coup, legal, parliamentary, and media process” resulted in the loss of “the hard-won achievement of High School as universal basic education”, significantly affecting young people and adults who attend public schools.

The movement Ocupa Escolas, mobilizing thousands of students in different states, was a milestone in the resistance to top-down educational reforms. This mobilization showed that young people understood the immediate effects of the reform on their right to education, denouncing not only the deterioration of public schools, but also the exclusion of voices from the school community in the policy-making process. The unprecedented and massive nature of the school occupations made it clear that young people not only demand material conditions for remaining in school but also demand active participation in decisions that affect their education and their future.

In this sense, the High School reform consolidates educational segmentation: on the one hand, a more comprehensive school, aimed at those with greater availability of time and resources; on the other, a faster and more instrumental school, geared toward training individuals for early entry into the labor market. Far from promoting universal benefits or ensuring equal conditions for all students, this model tends to intensify educational and social disparities, since it does not guarantee equitable opportunities for access, retention, and learning in an equitable and quality-oriented manner. In practice, the reform directs student training in such a way as to conceal the fact that, for most of the working class, opportunities remain restricted to occupations with less social recognition and reduced economic value.

Among the key changes, the implementation of the BNCC stands out, which, in the new configuration of High School, establishes the development of competencies and skills as a mandatory structural axis, guiding pedagogical practices and teaching-learning processes (Navarro & Rolkouski, 2024).



Among its objectives, the BNCC establishes the construction of a school that recognizes and values the multiple expressions of contemporary youth (Brasil, 2018a). To this end, it proposes intentional and continuous pedagogical action based on respect for human dignity and fundamental rights, while seeking to strengthen student leadership, understanding students as legitimate subjects in the construction of the curriculum and in the teaching-learning process.

However, although it calls for the acceptance of young people and the strengthening of their role in school processes, the BNCCEM is anchored in a broader regulatory framework, structured by Law No. 13,415/2017 and the National Curriculum Guidelines for High School. By fully aligning itself with these regulations, the BNCCEM reveals a dualistic perspective on youth education, which prioritizes subjective dimensions over the objective and formative dimension of schooling.

This orientation, embodied in the ten general competencies of Basic Education, tends to subordinate pedagogical practice to the individual interests of students, thus undermining the formative role of the school. The centrality given to youth leadership, collaborative learning, innovative attitudes, and the development of life projects diverts the focus of school education away from an essentially critical and systematic education.

The contradiction between the discourse of valuing youth diversity and the practice of curricular centralization proves even more problematic when observed in everyday school life. Teachers are pressured to reorganize their pedagogical practice around measurable skills, often disconnected from the social reality of students. Young people, presented as protagonists, experienced limited protagonism, since their choices are conditioned by predefined itineraries and a curriculum that privileges training for the labor market at the expense of comprehensive education. Thus, the apparent student empowerment becomes individual responsibility for school results, masking the structural conditions that limit the realization of the right to education.

According to Cury, Reis and Zanardi (2018, p. 119),

[...] The BNCC is based on capitalist logic and brings a technical, individualistic, and meritocratic approach to the curriculum that holds public school students responsible for the quality of education. [...] The BNCC is normative, centralizing, and prescriptive in terms of skills, knowledge, and supposed learning rights, and will have consequences for teachers working in public basic education networks.

In Paraná, the restructuring of High School followed the guidelines of the national curriculum reform policy, based on Resolution CNE/CP No. 4/2018, which established the BNCC for this stage at the national level. Thus, at the state level, this process was implemented through CEE/PR Resolution No. 4/2021, which established the Complementary Curriculum Guidelines for High School (DCCCEM) and the Curriculum Reference for High School in Paraná (RCEM).

In this context, it is essential to understand how these guidelines are reflected in state curriculum documents, especially with regard to Mathematics. To this end, the methodological approach adopted in this study is presented below, with a view to supporting the critical analysis developed.

## **METHODOLOGY**

This article presents a qualitative research approach that values description and documentary analysis as paths to a deeper understanding of reality. This type of research “[...] requires that the world be examined with the idea that nothing is trivial, that everything has potential to constitute a clue that allows us to establish a more enlightening understanding of our object of study” (Bogdan & Biklen, 1994, p. 49).

This study proposes a critical, reflective, and argumentative analysis of guiding documents for the New High School in the state of Paraná, seeking to highlight the relationships between the curricula of these federal units. To this end, a documentary research was developed, covering the period between 2018 and 2025, taking the approval of the BNCCCEM as a milestone.

The choice of documentary research is justified by the nature of the object under investigation, since curricular reformulations are materialized in official documents that guide pedagogical practice in schools. Unlike interviews or field observations, this type of approach allows us to capture the theoretical, political, and ideological foundations that underpin educational policy even before its practical implementation. Although it does not offer direct access to the concrete experiences of school subjects, documentary analysis reveals the normative discourses that guide such practices, allowing the identification of contradictions, omissions, and intentions present in legal texts and curriculum references.

Documentary research, as a methodological approach, is based on the analysis of documents as primary sources of information, used to understand social, historical, educational, political, or cultural phenomena from existing records. The objective of this type of research is to interpret reality based on

materials produced in empirical contexts, even if they were not created for research purposes.

In the specific case of this research, the analysis of Paraná's 2021 curriculum benchmarks required researchers to employ rigorous selection, categorization, reading, and critical analysis procedures, considering the content, authorship, production context, and purpose of the documents. This interpretation was conducted in light of the categories of content and form, whose foundations are based on the principle of Historical-Dialectical Materialism.

According to Cheptulin (1982, p. 268),

Every form is organically linked to content; it is a way of connecting the processes that constitute it. Form and content, being organically correlated, depend on each other, and this dependency is not equivalent. The determining role in content-form relations is played by content. It determines form, and changes in content bring about corresponding changes in form. In turn, form reacts on content, contributing to its development or restraining it.

Thus, the theoretical categories employed express, in historical materiality, the way in which phenomena are constituted and acquire meaning, since they result from concrete historical conditions. These foundations provide the appropriate theoretical tools for interpreting documents in their historical concreteness, considering the social determinations that permeate them and the position they occupy in the educational process.

To perform the analysis, the documents were initially organized into a corpus, in which excerpts related to the curriculum, learning objectives, and expected competencies for the area of mathematics were highlighted. Next, a categorization process was carried out, relating these excerpts to the categories of content and form, in order to identify the underlying conception of knowledge. This reading was guided by the analysis and synthesis movements characteristic of Historical-Dialectical Materialism, which made it possible to move between the description of the documents and the critical interpretation of their meanings. This procedure ensured not only methodological rigor but also consistency between the object of study, the underlying theory, and the research objectives.

The methodology adopted, therefore, allowed for the analysis of curricular references not only as normative texts, but as expressions of a

historically situated educational project. When examined in light of the dialectical categories of content and form, the documents from the state of Paraná could be interpreted in their theoretical, political, and ideological dimensions, revealing the tension between the social role of schools and the demands imposed by neoliberal educational reforms. The perspective of historical-dialectical materialism guided the critical reading, allowing us to identify how the form assumed by the curricula responds to content that often reproduces the demands of the market to the detriment of a humanizing education.

As a result, the documentary analysis, supported by rigorous theoretical and methodological foundations, made it possible to reveal the meanings attributed to mathematics teaching in the new High School system. More than just describing the curricular changes, the research sought to understand their effects and contradictions in the field of education. Next, we will present the results and analyses that clearly show how the principles and guidelines expressed in state curriculum documents reflect – or conflict with – the assumptions of competency-based pedagogy, in contrast to the Historical-Cultural perspective of education.

## **ANALYSIS AND RESULTS**

The analysis focused on the curricular reformulation of the New High School in the Mathematics component in the state of Paraná. Taking as reference the dialectical categories of content and form, the document was examined with the aim of highlighting the assumptions underlying the conception of knowledge present in the proposals. The investigation sought to identify whether the curriculum reflects the conception of “learning as a human need, as a collective need” (Asbahr, 2016, p. 105) or aligns with the logic of the pedagogy of “learning to learn”, whose essence is “the emptying of school educational work, transforming it into a process without content” (Duarte, 2006, p. 9), thus contributing to the adaptation of individuals to the demands of capitalism.

In Paraná, the implementation of the new Curriculum Framework for High School began with the definition of a new Curriculum Core for the state public school system (Paraná, 2021). The implementation process was organized gradually: in the 2022 school year, it covered first-year classes; in 2023, it was extended to second-year classes; and in 2024, it completed the cycle with third-year classes. This transition marks the state’s formal adherence to the New High School proposal, as outlined by national guidelines and the BNCC.

The curriculum structure presented in the document is organized around the articulation between the 1,800 hours of Basic General Education (FGB) – guided by competencies and skills set out in the BNCCEM – and the Educational Pathways (IF), subdivided into a Compulsory Flexible Part (PFO) and an elective part. In the first grade, students take FGB together with PFO, totaling 1,000 hours per year. This organization reveals, from its conception, the centrality attributed to the logic of flexibility and individual choice, reinforcing the principles of competency-based pedagogy discussed above.

In school practice, this curricular reorganization has direct implications for teachers' work and students' experience. For teachers, the fragmentation into competencies and skills translates into pressure for measurable results, often linked to external assessments, which limits pedagogical autonomy and weakens the space for collective planning. For students, the logic of individual choice, embodied in educational pathways, tends to reproduce inequalities, since the options offered vary according to the structural conditions of each school. Thus, the supposed expansion of freedom of choice does not, in fact, guarantee equal opportunities.

The new Curriculum Framework for High School in Paraná emphasizes that, among “the main changes, the following stand out: an increase in the number of hours of study, the primacy of comprehensive student education, the structuring of the curriculum by areas of knowledge, and the offering of the curriculum based on innovative curricular organization” (Paraná, 2021, p. 15). The discourse of innovation and centrality in comprehensive education, however, reflects the principles already discussed in the BNCCEM, whose structure is strongly anchored in competency-based pedagogy. This orientation reinforces the logic of curricular flexibility and emphasis on skill, to the detriment of systematized content with a formative function.

Garcia *et al.* (2021, p. 15) note that the New High School documents use terms from the critical framework, including “comprehensive education, integration between work, science, technology, and culture; work as an educational principle, research as a pedagogical principle, world of work”, as well as terms from neoliberal thinking, such as “skills and abilities, laborability, entrepreneurship, protagonism, socio-emotional skills, employability, labor market, life project”. This movement, according to the authors, establishes a dialogue between different schools of thought, with the aim of “concealing the intentions to dismantle education”.

Despite the discourse of innovation and the availability of the document for public consultation, Garcia *et al.* (2021) point out that there are

indications that the community in general did not effectively participate in the development of the Paraná reference framework. The document was drafted by groups linked to the State Department of Education (SEED), while social participation was limited to filling out a form, an instrument considered insufficient to promote the debate that aims at democratic management of public education.

At the very beginning of the document, explicit alignment with the BNCCEM text is identified, as stated in the excerpt: “This proposal is in accordance with the BNCC, which highlights, in its introduction, the relevance of this understanding for all stages of Basic Education in the development of the 10 general competencies”, adding that “competencies and skills are understood as a starting point for the organization and mediation of knowledge” (Paraná, 2021, p. 67).

This direct commitment to the national model reinforces the adoption of a functionalist, competency-based curriculum and marks a departure from the critical and formative role expected of public schools. The appropriation of the concept of competencies by official national documents as a benchmark for education to be aspired to is not a neutral process, nor is it free of ideological implications. On the contrary, it reflects a specific way of understanding society, in which technological advances and market demands become the guiding principles for the role of schools.

This emphasis on incorporating technology is in line with the discourse on educational innovation, but it faces significant limitations when confronted with the concrete conditions of the public school system. Inequality in access to equipment, the internet, and teacher training means that the promise of modernization coexists with the reality of material precariousness. Thus, technology takes on an ambiguous character: on the one hand, it is presented as a solution to educational challenges; on the other, it reinforces existing disparities between schools and students, showing that the simple introduction of technological resources does not, in itself, guarantee a critical and comprehensive education.

In this context, there is evidence of “an almost apologetic confidence in the current stage of technological advancement and in the ability of schools to prepare citizens and workers who are intellectually and psychologically suited to this reality” (Ramos, 2001, p. 129). This orientation is explicitly revealed in the Paraná Curriculum Framework, which structures pedagogical practice based on learning objectives, conceiving content as mere means to

achieve the competencies and skills expected throughout the three grades of High School (Paraná, 2021).

By aligning itself with competency-based teaching methods – and, consequently, with the logic of “learning to learn” – the document reaffirms a concept of education focused on training individuals to solve practical problems and apply knowledge in everyday situations. From this perspective, school content is relegated to a secondary role, subordinate to functionality and immediate usefulness. As Claudino-Kamazaki, Asbahr, and Mesquita (2018, p. 170) state, this model corroborates the idea that “the most important thing would be to prepare individuals to solve practical problems, to mobilize knowledge in everyday experience”, highlighting the emptying of the formative function of school content.

In contrast to this logic, Saviani (2016, p. 57) warns that “it would be pointless to democratize schools, that is, to expand them in order to make them accessible to the entire population, if, at the same time, this were done by emptying the school of its specific content, that is, literate culture and systematized knowledge”, emphasizing the centrality of knowledge in human formation and in the realization of the right to education.

In this regard, Claudino-Kamazaki, Asbahr and Mesquita (2018, p. 170) reinforce

[...] substantial differences between forming theoretical thinking (our defense) and forming skills. It is not just a matter of mobilizing everyday knowledge and linking it to some school content. On the contrary, theoretical content is a starting point and a tool for understanding and acting in the world.

As provided for in the national document (Brasil, 2018a), the Paraná Curriculum Framework organizes the area of Mathematics and its technologies into five thematic units: numbers and algebra; geometries; quantities and measurements; and information processing (Paraná, 2021). The official text states that the

[...] mathematical knowledge presented here, aligned with learning rights, aims to consolidate Mathematics as a historically constructed field of knowledge and as a means of promoting the comprehensive education of students, providing them with a broader view of the world so that they can build their life projects and exercise citizenship.

Despite this discourse, the document itself repeatedly emphasizes the need to adapt education to technology. This direction is presented as a way to address social inequalities, although the document itself recognizes the limits of this approach. In the specific case of Mathematics, it affirms the need to adapt to technological demands, which reinforces the subordination of teaching to the imperatives of technical innovation, often disconnected from reflection on the educational goals of the school:

[...] regarding the use of technology in schools and Mathematics classrooms, the current situation has shown that without it, dialogue between students and schools would not be possible in all areas of knowledge and stages of education. (Paraná, 2021, p. 506)

Furthermore, the framework establishes five specific competencies for Mathematics, each subdivided into skills to be developed throughout High School. These skills are identified by alphanumeric codes, organizing the teaching process according to the logic of competencies. In this sense, Freitas (2018) warns of the risks of this approach, which tends to reduce knowledge to operational fragments and devalue the theoretical and formative nature of school Mathematics. For the author,

These mechanisms are part of a dynamic process: national curriculum frameworks (both in terms of what should be taught to students in schools and in terms of the training of education professionals) provide the competencies and skills to “standardize” teaching and learning, tests (usually census-based) assess the learning specified by the framework and, in turn, provide elements to place schools in a meritocratic system of accountability for their work, fueling competition between schools and teachers. In this process, schools that “fail” to meet their goals are vulnerable to privatization. (Freitas, 2018, p. 79)

By adopting the assumptions of competency-based pedagogy, the Paraná Curriculum Framework also aligns itself with the logic of results-based pedagogy, reinforcing a vision of learning based on the fulfillment of goals and indicators. As stated in the document itself, the framework “is based on the guidelines of the BNCC” and affirms that “essential learning, which must be worked on throughout basic education, needs to ensure that students develop competencies that are embodied in the rights to learning and development” (Paraná, 2021, p. 511).



Cury, Reis and Zanardi (2018, p. 129) contribute to the reflection by stating that “unveiling the BNCC is an obligation of educators to understand the projects that are at stake in society and within the school”, since the logic of the BNCC reflects the logic of capital and, consequently, that of meritocracy. In this sense, this conception reduces the formative role of education to a set of measurable performances, emptying school content of its critical and reflective dimension, advocating a functionalist school for the majority and reserving a robust theoretical education for a minority with greater resources and opportunities. This observation reinforces the importance of considering, in pedagogical mediation, the unity between content and form.

Claudino-Kamazaki, Asbahr and Mesquita (2018, p. 170) state that “the way of teaching and the content to be taught must form a unity”. Thus, questions about “what” and “how” to teach concern the selection of content and the forms that structure the educational process, whose goal is to intentionally produce humanity in each individual. It is not only a matter of ensuring that students know how to verbalize a concept, but also of ensuring their appropriation of the logical and historical process that led to the formation of that concept.

This is a central dimension for understanding the theoretical and practical connections that must be present in the curriculum. Going beyond a simple list of content, often treated in an inert manner, requires organizing teaching in such a way as to promote qualitative transformations in the development of students’ thinking, directing them toward the formation of theoretical thinking (Claudino-Kamazaki, Asbahr, and Mesquita, 2018, p. 170).

In light of the above, the stated intentions establish that pedagogical actions must be based on three pillars: training for life, academic excellence, and the development of social-emotional skills. This structure highlights the teacher’s direct responsibility for the quality of the student’s education, transferring possible educational failures to teaching practice. Any failure related to these pillars tends to be interpreted as an individual pedagogical failure, obscuring the role of the curriculum structure and its intrinsic limitations in the educational process.

This consolidates a formative logic centered on flexibility and individualization of school trajectories, in accordance with the principles of the BNCC and the precepts of competency-based pedagogy. This reorganization highlights the prevalence of a functionalist curriculum design, focused on preparing students for the world of work, to the detriment of the critical and scientific education historically guaranteed by schools as a social right.

An analysis of the Paraná state curriculum document reveals that, although it mobilizes discourses on innovation, protagonism, and comprehensiveness, the proposal is strongly aligned with competency-based pedagogy and the “learning to learn” model, guided by market demands and a performative rationality. The emphasis on operational skills, direct teacher accountability, and the centrality of individual experience shifts the focus away from the social function of schools and access to historically produced knowledge.

Next, the conclusion summarizes the main findings and discusses their implications for a critical understanding of the curriculum reforms in the New High School.

## CONCLUSIONS

This study sought to analyze the curricular reformulation of the New High School in the Mathematics curricular component in the state of Paraná, based on Historical-Cultural Theory and the dialectical categories of content and form. As evidenced, these reforms are not limited to structural or pedagogical reorganization: they constitute an ideological realignment that inserts school education into a functionalist logic, focused on the development of skills and abilities with an emphasis on employability and adaptation to the labor market, to the detriment of critical and humanizing education.

By prioritizing youth leadership, curricular flexibility, and educational pathways, the documents analyzed reinforce the perspective of “learning to learn”, emptying school content of its educational function. This concept reduces the social function of schools, disconnecting teaching from systematized knowledge and the conditions necessary for the development of higher human capacities, as advocated by Historical-Cultural Theory.

Particularly in the case of Mathematics, it was observed that the Paraná state curriculum framework remains strongly aligned with the BNCCEM guidelines, organizing teaching by competencies and emphasizing the resolution of everyday problems. The document analysis showed that the Paraná curriculum not only incorporates the principles of the BNCCEM but also expands them by structuring pedagogical proposals that subordinate content to previously defined learning objectives. This inversion between content and form compromises the role of content as the basis for human development, making form an end in itself and consolidating a conception of curriculum aligned with competency-based pedagogy and the idea of “learning to learn”.

It can therefore be observed that the state of Paraná is implementing curricular reforms aligned with the principles established by the BNCCEM. By prioritizing flexibility and a focus on the individual in training, these reforms strip school content of its educational function, subordinating it to practical and utilitarian objectives. Although this approach values the practical applicability of knowledge, it compromises the appropriation of fundamental theoretical concepts, limiting the potential of Mathematics teaching as an instrument for critical reading and transforming reality.

The implications of these reforms for everyday school life are significant. For teachers, individual accountability for results is intensified, while the objective conditions necessary for the development of pedagogical practices based on scientific content are reduced. For students, the flexible curriculum translates into unequal educational paths, dependent on the structural conditions of schools and previously accumulated cultural capital. In this context, public schools run the risk of consolidating a merely adaptive function, preparing most young people for low-complexity occupations, while restricting access to scientific and critical knowledge to a minority.

In this sense, the curricular reformulations analyzed show an alignment with the BNCCEM prescriptions that do not promote the democratization of knowledge, nor do they contribute to a socially referenced quality education. On the contrary, they contribute to the intensification of educational inequalities, as Frigotto (2016, p. 331) warns: “A reform that legalizes social apartheid in education in Brazil”.

This reaffirms the need to resist curricular reforms that disregard the social function of schools and the central role of school content in human development. It is necessary to return to a conception of curriculum that values the unity between content and form, recognizing teaching as a means of mediating scientific knowledge and as a condition for the development of theoretical thinking, committed to the emancipation of individuals and social transformation.

Furthermore, the results of this research point to the need for further investigation into how the curriculum framework is implemented in teaching practice and in student learning processes. Future studies could analyze, for example, how Mathematics teachers interpret and apply the guidelines of the new curriculum, as well as the resistance strategies they develop in their working contexts.

Similarly, it is important to investigate students' reception of these changes, their perceptions of the role of school, and the ways in which they engage with – or distance themselves from – the educational process. By combining documentary analysis with empirical research, it is possible to enrich the debate and strengthen pedagogical projects committed to critical, socially referenced, and emancipated education.

### **AUTHOR'S CONTRIBUTION STATEMENTS**

ERN and SVRA conceived the idea presented. ERN and SVRA drafted the manuscript. All authors actively participated in the discussion of the results, reviewed, and approved the final version of this paper,

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