ACTA SCIENTIAE

ISSN: 2178-7727
DOI: 10.64856/acta.scientiae.8496

Financial education in the official curriculum of Paraná: Looking at the curriculum documents

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ABSTRACT

Background: Financial education was incorporated into the official Brazilian curriculum by the National Common Curriculum Base (BNCC) as a transversal contemporary theme. In Paraná, financial education has been mandatory since 2021, with a high workload and always linked to mathematics. It has gained prominence in the curriculum documents to the point of being incompatible with the BNCC recommendations. **Objectives**: To understand what the curriculum documents reveal about the official financial education curriculum of Paraná. **Design**: Qualitative, descriptive, and documentational methodological approach based on content analysis. **Setting and participants**: Paraná curriculum documents addressing financial education in basic education. **Data collection and analysis**: The data were collected from the document in force that provides for the inclusion of financial education as a curriculum component in public education in Paraná, which this work analyses through content analysis. **Results**: Financial education in Paraná addresses five themes: management of financial resources, consumption, work and income, rights and duties of the citizen, and money, with the main focus on the individual's financial behaviour. **Conclusions**: The themes and the space given to financial education in Paraná's official curriculum align with recommendations from international organisations that seek to train subjects aligned with neoliberalism, using mathematics to justify its insertion into education. Future studies can elucidate how the official curriculum is implemented and the role of mathematics in consolidating or questioning it.

Keywords: Financial Education; Curriculum; Mathematics Education; Content Analysis.

Educação Financeira no currículo oficial do Paraná: um olhar para os documentos curriculares

RESUMO

Contexto: A Educação Financeira foi incorporada ao currículo oficial brasileiro pela Base Nacional Comum Curricular (BNCC) como um tema contemporâneo transversal. No Paraná, a educação financeira se tornou obrigatória

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desde 2021, com carga horária elevada e sempre vinculada à matemática, alcançando nos documentos curriculares paranaenses uma importância incompatível com as recomendações da BNCC. **Objetivos**: Compreender o que os documentos curriculares revelam sobre o currículo oficial de educação financeira do Paraná. **Design**: Abordagem metodológica qualitativa, descritiva e documental pautando-nos na análise de conteúdo. **Ambiente e participantes**: Documentos curriculares paranaenses que tratam da educação financeira na educação básica. **Coleta e análise de dados**: Os dados foram coletados a partir do documento que se encontra em vigor e que dispõe sobre a oferta de educação financeira como componente curricular na educação pública do Paraná sendo analisado de acordo com a análise de conteúdo. **Resultados**: A educação financeira do Paraná versa sobre cinco temas: gestão de recursos financeiros, consumo, trabalho e renda, direitos e deveres do cidadão e dinheiro de forma que o foco principal não são os conceitos matemáticos, mas sim o comportamento financeiro do indivíduo. **Conclusões**: Os temas e o espaço dado à educação financeira no currículo oficial do Paraná vão ao encontro das recomendações de organismos internacionais que procuram formar sujeitos alinhados ao neoliberalismo e a matemática é utilizada para justificar sua inserção na educação. Estudos futuros podem elucidar de que forma o currículo oficial está sendo efetivado e qual o papel da matemática na consolidação ou no questionamento desse currículo.

Palavras-chave: Educação Financeira; Currículo; Educação Matemática; Análise de Conteúdo.

INTRODUCTION

The school is a dynamic space that undergoes continuous transformations, as does the society it is part of. The changes occur in both the physical aspects, such as the architecture and infrastructure of the buildings, as well as in their curriculum and pedagogical and methodological aspects.

A change observed in Brazilian schools over the last two decades was the growing presence of financial education in basic education, especially in the final years of elementary and high school, often strongly linked to mathematics, which, in turn, brought financial education into the debate within mathematics education.

Financial education gained prominence in Brazilian Basic Education with the institution of the National Strategy for Financial Education (ENEF) in 2010, under the influence of actions of the Organisation for Economic Co-operation and Development (OECD), and with the inclusion of financial education as a transversal contemporary theme in the National Common Curriculum Base (BNCC).

It is important to note that the BNCC did not confer financial education a prominent role among contemporary transversal themes, nor did it institute

its obligation as a curriculum component at any level of education, and the guideline is that contemporary themes be worked on in basic education in a transversal and integrative way, which presupposes the articulation of the themes with the other contents of the different areas of knowledge.

Thus, the great space given to financial education in the curriculum of the state school system of Paraná is noteworthy, since it became mandatory in 2021 in the diversified part of the curriculum of all grades of regular and full-time high school, being later integrated also to the final years of elementary school and reaching the status of a curriculum component belonging to the area of mathematics in 2026.

Aware of the movement of curricularisation of financial education and its overlap with mathematics education, we turn our attention to the documents that regulate the provision of financial education as a curriculum component in the state of Paraná.

We understand that these documents will allow us to examine financial education from the perspective of critical curriculum theories in the context of public education in Paraná, the researchers' professional performance, and their interconnections with mathematics education, also contributing to the debate on the theme in the national scenario.

Thus, the present work, which is part of the first author's doctoral research under the guidance of the second, aims to understand what the curriculum documents reveal about the official financial education curriculum in Paraná. To this end, we adopted a qualitative, descriptive, and documentational methodological approach, based on content analysis.

Next, we present the theoretical framework on critical curriculum theories, the historical trajectory of financial education in the Paraná curriculum documents, the methodological path, the presentation and analysis of the data, and, finally, the final considerations.

THEORETICAL FRAMEWORK

Critical Curriculum Theories

One of the central questions of the school is: *What should we teach?* The answer to this question defines which knowledge is most valued at a given historical moment and which, consequently, will "shape" the individuals of that society. In education, what should be taught is defined by the curriculum (Silva, 2004; Apple, 2006; Young, 2014).

It seems obvious that thinking about what we should teach at school is important. However, we must take into account two factors that led researchers to focus more actively on this issue, transforming it into a field of study: the accumulation of scientific knowledge and the massification of teaching (Moreira & Tadeu, 2013).

In Western society, until the 19th century, formal instruction in educational institutions was a privilege reserved for elites. The growing industrialisation and urbanisation in that century began to demand a diversified, specialised workforce, compelling the provision of formal education to an increasingly diverse population. Thus, school became an option for the majority of the population in Western society only in the 20th century (Borges Netto & Lucena, 2018).

In addition, the accumulation of knowledge in different areas that occurred from the 16th century onwards with the Scientific Revolution and the need to qualify different types of professionals who mastered the new techniques and knowledge began to demand a selection of content capable of providing individuals with the conditions to exercise their roles in the consolidating capitalist society (Borges Netto & Lucena, 2018).

Thus, in the late 19th and early 20th centuries, the curriculum emerged as a specialised field of study due to the institutionalisation of mass education. In this period, in the United States, the US society underwent profound transformations, such as industrialisation, urbanisation, and the arrival of large waves of immigrants with different customs and behaviours, during which teaching began to take the form of the curriculum organisation we know today (Silva, 2004; Moreira & Tadeu, 2013).

> The school was then seen as capable of playing an important role in fulfilling such functions — consolidating and promoting a common national project — and in facilitating the adaptation of the new generations to the economic, social, and cultural transformations that occurred. At school, the curriculum was considered the instrument par excellence of social control that was intended to be established. Thus, it was up to the school to inculcate the "appropriate" values, conduct, and habits. [...] In summary, it was considered indispensable to organise the curriculum and imbue it with order, rationality, and efficiency (Moreira & Tadeu, 2013, p. 17, emphasis added).

The first scholars of the curriculum expressed this view in their works. John Franklin Bobbitt, inspired by Taylorism, proposed in his 1918 work *The Curriculum* that the school should function like a company, specifying the results and methods it intended to achieve and the forms of measurement to determine whether those results had been achieved (Silva, 2004, p. 23).

Ralph Tyler consolidated Bobbitt's vision of the curriculum in 1949 with *Basic Principles of Curriculum and Instruction*, in which he focused on issues of organisation and the development of teaching, establishing a technicist conception of the curriculum (Silva, 2004, p. 25).

From the 1970s, a new current of thought about the curriculum emerged that questioned the excessively technical, scientific, and "neutral" view of the first conceptions of the curriculum, which came to be called "traditional curriculum theories".

Influenced by progressive currents of thought such as neo-Marxism and the critical theory of the Frankfurt School, several scholars laid the foundations of what would be called critical curriculum theories, including Basil Bernstein and Michael Young from Great Britain, Samuel Bowles, Herbert Gintis, Michael Apple and Henry Giroux from the United States, and Pierre Bourdieu, Jean-Claude Passeron, Christian Boudelot, and Roger Establet from France.

> From this perspective —critical theories—, the curriculum is considered a social and cultural artefact. [...] The curriculum is implicated in power relations; the curriculum conveys particular and interested social views; the curriculum produces particular individual and social identities. The curriculum is not a transcendent and timeless element; it has a history, linked to specific and contingent forms of organisation of society and education (Moreira & Tadeu, 2013, p. 14).

More than simply describing "what" and "how" one should teach, critical theorists have come to question the "why" certain content is taught rather than other content and how the way it is taught helps shape individuals in capitalist society.

> Unlike traditional and liberal explanations of the school, with its emphasis on continuities and historical development, critical theory places educators before a form of analysis that shows the fractures, discontinuities and tensions in history, which are valuable for highlighting the centrality of human struggle and action, while simultaneously revealing the

> distance between society as it is given and society as it should be (Giroux, 1983, p. 27).

In critical theories, ideology, culture, and power became central themes in curriculum discussions. According to Silva (2004) and Moreira and Tadeu (2013), the work by the French-Algerian philosopher Louis Althusser, "The ideology and ideological state apparatuses" (1970), was essential for bringing the question of ideology into the educational debate.

In his work, Althusser argues that in an advanced capitalist society, the State maintains the economic and social order by force and consensus, guaranteed, respectively, through repressive apparatuses, such as the police, army and prisons, and ideological apparatuses, such as the church and school (Giroux, 1983, p. 37).

Thus, "school acts ideologically through curriculum [...] and contributes to the reproduction of capitalist society by transmitting through school subjects the beliefs that make us see the existing social arrangements as good and desirable" (Silva, 2004, p. 31–32).

Among the various critical theorists of the curriculum, we highlight the US scholars Michael Apple and Henry Giroux. Apple (2006, p. 47) directly addresses the issues of ideology and power in the curriculum field by asking: "How, concretely, does official knowledge represent the ideological configurations of the dominant interests of a society? How do schools legitimise these limited and partial patterns of knowing as untouchable truths?" Giroux (1988, p. 8) understands "school as a public sphere that maintains an indissoluble association with issues of power and democracy".

In addition to bringing social, economic, and political issues into the debate on the curriculum, which until then had been seen only as documents that organised teaching, the representatives of critical theories also began to look at what was actually done "on the school floor".

Thus, the curriculum is studied in three layers: an official curriculum, as determined by the curriculum documents; a real curriculum, as determined by understandings and by how teachers carry out the prescriptions of the curriculum documents in their practice; and a hidden curriculum, present in the relationships forged between teachers and students.

According to Apple (2006, p. 48), the official curriculum concerns the "educational knowledge itself, [...] where knowledge comes from, who the knowledge is from, what social groups it supports, etc." The real curriculum

concerns the "ideological and epistemological commitments that [teachers] tacitly accept and promote by the use of certain models and traditions [...] in their own work". The hidden curriculum, on the other hand, is the "tacit teaching of norms, values, and inclinations to students, a teaching that remains by the simple fact that students live and deal with the institutional expectations and routines of schools every day for several years".

Henry Giroux (1988) also identifies three layers in which the curriculum occurs in educational practice, calling them discourses: the discourse of production, the discourse of text analysis, and the discourse of lived cultures.

The author argues that "the discourse of production has focused on how structural forces, external to school life, build the objective conditions within which the school operates" (Giroux, 1988, p. 88). The discourse of text analysis, on the other hand, "allows educators to distance themselves from the text in order to unveil the meanings, contradictions, and differences inscribed in the form and content of classroom subjects" (p. 90). Finally, the discourse of lived cultures involves "an understanding of how teachers and students give meaning to their lives through complex historical, cultural, and political forms, which they both embody and produce" (p. 95).

From this perspective, curriculum documents (including laws, regulations, curriculum references, reference matrices, etc.) can provide us with an overview of the official curriculum and production discourses, while the real curriculum and the discourse of text analysis are effective in the practices of school agents, especially teachers, who are directly responsible for transforming (or not) the theory of the document into practice, through the action of teaching-learning. On the other hand, the hidden curriculum and the discourse of lived cultures are revealed through the relationships between teachers and students within the school environment.

Thus, the analysis of curriculum documents is, according to critical theories, one of the layers of understanding about what is taught in schools, in this case, the official curriculum and production discourses, which is why this work focuses on the documents that established the teaching of financial education in Paraná, of which we will describe the historical path.

Historical trajectory of financial education in the Paraná curriculum documents

To understand how and why financial education was incorporated into the curriculum of elementary and high schools in Paraná from 2021 onwards,

it is necessary to go back a few decades, more precisely to the 2000s, when the Organisation for Economic Co-operation and Development (OECD) approved the *Financial Education Project* for the 2003–2004 biennium.

As part of this project, the OECD conducted a large international study on financial education, surveying the actions of the organisation's member countries regarding financial education for the general population and for students in schools and universities (Silva & Powell, 2014; Silva & Mazzi, 2024).

From this survey, in 2005 the OECD published the report *Improving Financial Literacy: Analysis of Issues and Policies* in which they describe financial education programs offered by OECD countries, and the document *Recommendation on Principles and Good Practices for Financial Education and Awareness*, which recommends the adoption of measures to develop financial education among the populations of the organisation's member and partner countries, including school children and young people (Silva & Mazzi, 2024; Conrado, 2025).

Silva and Powell (2014), in analysing the 2005 OECD documents and the *Guidelines for Financial Education at School and Guidance on Learning Framework*, published in 2011 by the OECD, point out several factors that help us understand how financial education was implemented in the Brazilian school curriculum, especially in Paraná.

Among the points made by the authors, we highlight: that the objective of the financial education program should be to prepare young people to manage and use their money well throughout life; that the financial education program should compete for space with other emerging themes; that governments should decide whether financial education would be mandatory or elective and whether it would be an autonomous subject or part of existing subjects.

In these documents, in addition to the conjuncture analysis that seeks to justify the importance of financial education for the general public, the OECD provides definitions of financial education and financial literacy that later served as the basis for public policies to implement financial education in several countries, including Brazil.

Following the OECD's recommendations to promote public policies to provide financial education to citizens, Brazil instituted, on December 22, 2010, through Decree No. 7.397/2010, the National Strategy for Financial Education (ENEF).

To define plans, programs, actions, and coordinate the implementation of ENEF, the National Committee for Financial Education (CONEF) was established within the scope of the Ministry of Finance, composed of representatives of the Central Bank, the Securities and Exchange Commission, the National Superintendence of Complementary Pension, the Superintendence of Private Insurance, the Ministry of Finance, the Ministry of Labour and Social Security, the Ministry of Education, the Ministry of Justice, and representatives of civil society.

CONEF projects were executed by the Brazilian Association of Financial Education (AEF-Brasil), founded in 2012 and formed by four institutions in the financial sector: the Brazilian Association of Financial and Capital Market Entities (ANBIMA), B3 (Brasil, Bolsa, Balcão), the National Confederation of General Insurance, Private Pension and Life, Supplementary Health and Capitalization Companies (CNSeg), and the Brazilian Federation of Banks (FEBRABAN) (Forte, 2021, p. 31).

From 2013 to 2015, AEF-Brasil created materials and textbooks for elementary and high school education, and distributed them to almost 3,000 schools across the 26 states of the federation and the Federal District, in compliance with an agreement signed with the Ministry of Education that allowed the materials to be tested.

In 2016, four state poles were signed in partnership with the Departments of Education and Federal Universities in the states of Paraíba, Minas Gerais, Rio Grande do Sul and Tocantins, which began using the textbooks prepared by AEF-Brasil for high school (Forte, 2021, p. 37).

In 2018, AEF-Brasil's actions began to focus on public school teachers with the creation of the Vida e Dinheiro platform "because it is understood that the teacher is the main vector for consolidating the concepts of financial education and for changing the behaviour of new generations" (Forte, 2021, p. 39).

In 2020, Decree No. 7.397/2010 was revoked and replaced by Decree No. 10.393/2020. Nova ENEF replaced CONEF with the Brazilian Forum on Financial Education (FBEF), reducing the participation of civil society representatives in decision-making and increasing the participation of financial sector representatives.

Silva and Mazzi (2024, p. 14) highlight that "about ENEF, the formative courses, courses and programs developed, in general, are in partnership with private organisations, companies and banks that have the

opportunity to strengthen their neoliberal influences in education further" and that the execution of the actions occurred in a non-systematic way since they depended on schools, municipal and state departments to adhere to the proposed projects.

If ENEF's actions were not enough to promote financial education in the school environment in a generalised way, they gave the theme visibility and helped create a first movement towards the curricularisation of financial education.

It was only with the publication of the BNCC in 2018 that financial education gained the legitimacy necessary to gain space in the official curriculum of basic education, since it is a curriculum document of a normative nature, that is, "it makes it mandatory to elaborate or re-elaborate the curricula of education networks by establishing a basis of common learning rights and objectives for the entire country" (Paraná, 2018, p. 2).

Under the influence of international organisations such as the OECD and the United Nations Educational, Scientific and Cultural Organization (UNESCO), the pedagogical focus of the BNCC is on the development of competencies, defined as "the mobilisation of knowledge (concepts and procedures), skills (cognitive and socio-emotional practices), attitudes, and values to solve complex demands of everyday life, the full exercise of citizenship and the world of work" (Brasil, 2018, p. 8).

Although the BNCC promoted changes at all levels of basic education, the most significant changes occurred in high school, among which we highlight the organisation of a 3000-hour workload to be completed over three years on two "fronts": basic general education and formative itineraries.

Basic general education, with a maximum workload of 1800 hours in the three years, was organised into four areas of knowledge: Languages and their Technologies, Mathematics and their Technologies, Natural Sciences and their Technologies, and Applied Human and Social Sciences.

The formative itineraries, with a minimum workload of 1200 hours, constituted the flexible part of the high school curriculum, allowing students to deepen their knowledge in their area of greatest interest. The offer of curriculum units to compose the formative itineraries should be elaborated "focusing on one area of knowledge, on technical and professional education or also on the mobilisation of competencies and skills from different areas, composing integrated itineraries" (Brasil, 2018, p. 477). As we will highlight later, it was

through the flexible part that financial education gained space in the Paraná curriculum.

In the BNCC, financial education appears as a transversal contemporary theme that should be addressed, preferably, in a transversal and integrative way, being developed in a contextualised way, as well as the other transversal themes[1] contemplated in the document, not belonging to a specific subject (Brasil, 2019, pp. 18–19).

In Paraná, financial education first appeared in the curriculum documents in Normative Instruction No. 011/2020, which established the high school curriculum matrix for the state's public school network, implemented from 2021 to adapt the high school curriculum proposal to the BNCC. In the new curriculum design, financial education became mandatory in the diversified part of the curriculum, with a weekly workload of one hour, except in Indigenous and quilombola schools.

Silva, Barbosa, and Körbes (2022) point out that the changes promoted by this Normative Instruction lacked debate with the school community and were determined by the State Department of Education (SEED). The authors also argue that the new curriculum "gives legitimacy to large-scale assessments and removes the autonomy of schools, and the replacement of the humanities by financial education (without a clear object of study) would harm students' education" (p. 403).

The Complementary Curriculum Guidelines for High School and the Curriculum Reference for High School in Paraná were published in July 2021. According to Silva, Barbosa and Körbes (2022), the process lacked participation from the school community, as the SEED made available only 23 days for society's appreciation and contributions to the preparation of the document.

1In addition to financial education, the following are transversal contemporary themes: rights of children and adolescents, traffic education, environmental education, food and nutrition education, the aging process, respect and valorisation of the elderly, human rights education, education of ethnic-racial relations and teaching of Afro-Brazilian, African and Indigenous history and culture, health, family and social life, consumer education, tax education, work, science and technology and cultural diversity (Brasil, 2018, pp. 19–20).

In the Curriculum Reference, financial education emerges as an itinerary of deepening in the area of mathematics and its technologies, under the title "Learning path: Financial education based on mathematics", citing documents published by the OECD and ENEF to justify its inclusion in the Paraná curriculum.

Also in 2021, Joint Normative Instruction No. 008/2021 established the curriculum matrix for the new model of offer for high school in the state public school network of Paraná, as of the school year 2022, to incorporate the changes defined by the new Curriculum Reference.

In this normative instruction, there is an increase in the workload of Portuguese Language and Mathematics and a reduction in the workload of Philosophy, Sociology, Arts, History, Geography, Chemistry, and Physics. Financial education started to compose the mandatory flexible part[2], with an increase in the weekly workload from one to two hours in the three grades of high school, except in Indigenous and quilombola schools, after which it began having a higher workload than all other subjects, except Portuguese and Mathematics (Silva, Barbosa, & Körbes, 2022, p. 404).

In 2023, financial education began to be considered an object of knowledge and a mandatory curriculum unit[3], with the publication of Normative Instruction No. 007/2023, becoming mandatory, in addition to high school, from the 6th to the 9th grade of elementary school in full-time schools and in the 8th and 9th grades of regular schools. Until then, financial education was addressed in the final years of elementary school within the Mathematics curriculum component, through skills specified in the BNCC. The changes began to be implemented as of the 2024 school year.

Since its approval in 2017, the changes promoted by the BNCC in high school have been criticised mainly by teachers, students, and experts, since the reduction in the workload of basic general education led to the emptying of

2 The mandatory flexible part integrates the formative itineraries, although, schematically, it takes a specific form because it is a mandatory complementary curriculum component of the formative itinerary (Paraná, 2021, p. 3).

3 "A curriculum unit is the set of knowledge that mobilises knowledge from more than one area of knowledge, based on contextualisation and interdisciplinarity" (Paraná, 2023, p. 3).

content and the reduction in the workload of historically consolidated and fundamental curriculum components for students education.

In addition, the lack of clarity and physical structure and staff of schools to implement the changes, especially those related to formative itineraries, led the school community to mobilise so that the changes in high school were repealed or at least better structured, which led the Ministry of Education to suspend the implementation of the BNCC in high school in April 2023, opening a public consultation on the subject.

In July 2024, Law 14.945/2024 instituted the High School Reform, which, among other changes, increased the minimum workload for basic general training to 2,400 hours and reduced the workload for formative itineraries to 600 hours. The reform also provided a clearer definition of the formative itineraries, now conceptualised as deepening knowledge in the areas, and made it mandatory to offer at least two formative itineraries from different areas in each school (Todos pela Educação, 2024).

To adapt to the changes promoted by the High School Reform, SEED published Joint Normative Instruction No. 015/2025, which provided for the high school curriculum matrix for the year 2026, and Normative Instruction No. 006/2026, which revoked Normative Instruction No. 007/2023 and provided for the offer of financial education in the school year 2026.

In these documents, financial education became a curriculum component, incorporated into basic general education in mathematics and its technologies, both in high school and in the final years of elementary school. The workload did not change from previous years, with two hours per week in each of the three high school grades.

Normative Instruction No. 006/2026 is the most current Paraná curriculum document on financial education and details its implementation as a curriculum component in Paraná. For this reason, this document was analysed to understand, in light of critical curriculum theories, the characteristics of financial education in Paraná.

METHODOLOGY

This work adopts a qualitative approach, since the main focus is on understanding, describing, and interpreting a phenomenon, with a view to deepening experiences, points of view, opinions, and meanings (Sampieri, Collado, & Baptista Lucio, 2013, p. 376).

It is classified as a descriptive and documentary research, since it seeks to describe the characteristics of a population or phenomenon (Gil, 2002, p. 42) based on primary sources, in order to assist in the "historical, cultural and scientific understanding of a community and/or a phenomenon (social or natural) located in a given period" (Fontana & Pereira, 2023, p. 48), using content analysis as a procedure for data analysis.

Bardin (2016) points out three steps to be taken in content analysis: i) pre-analysis, which consists of the choice of documents to be analysed and the formulation of hypotheses and objectives; ii) exploration of the material, which "consists essentially of coding, decomposition or enumeration operations, according to previously formulated rules" (p. 129); iii) treatment of the results, inference and interpretation, where the data are presented through tables, diagrams, graphs, and models and the researcher makes inferences according to the objectives.

In the pre-analysis stage, we studied the curriculum documents that regulate and standardise financial education in Paraná, as presented in the previous section. Normative Instructions 015/2025 and 006/2026 are in force, and only the latter addresses financial education exclusively, containing essential elements to understand what the curriculum documents reveal about the official financial education curriculum in Paraná. Therefore, Normative Instruction 006/2026 was constituted as our analysis document.

In the exploration stage of the material, the text was decomposed by selecting "excerpts" that reveal the document's perspective on the presence of financial education in the Paraná curriculum. From these excerpts emerged the log and context units.

According to Bardin (2016, p. 134), the log unit "corresponds to the content segment considered as the base unit, aiming at the categorisation and frequency counting" and may be the word, theme, character, object, event, or document. The context unit, in turn, "serves as a unit of understanding to encode the log unit and corresponds to the segment of the message whose dimensions (greater than those of the log unit) are optimal for understanding the exact meaning of the log unit" (p. 137).

Among the various constituent elements of Normative Instruction No. 006/2026 (objectives, justification, organisational framework with skills, learning objectives, objects of knowledge, and possibilities of contents to be developed) we began to observe in detail the learning objectives because, according to the document, "pedagogical planning must start from the learning

objectives, ensuring coherence between the referrals and the selected contents and the full development of the planned skills" (Paraná, 2026, p. 27).

Thus, the learning objectives specify what is expected of the student at the end of the teaching process, serving as the basis for the text that outlines what should be taught in financial education within the official curriculum. For this reason, we used the learning objectives as context units from which we extracted expressions and words that revealed the topics of interest in financial education, which we considered our log units.

For coding the log units, we organised all the learning objectives in an electronic spreadsheet so that we could identify them in the original document by their position on the organising board and by the grade/year to which they refer.

Then, we bolded the words or expressions (log units) that revealed the topics of interest of each learning objective (context units) and transcribed them ahead, identifying them as the first (1) or second (2) log unit extracted from the context unit.

The coding was carried out to identify all these elements of organisation: position on the organising board, school year/grade of the learning objective (context unit), and the log unit number for the respective context unit—for example, code 1.5.LO7 refers to the context unit 1 (1.) extracted from the fifth learning objective (.5) of the 7th grade (LO7), as shown in Table 1 below.

Chart 1

Coding of the units of analysis

Position	Year/ Grade	Learning objectives (context units)	Code	Log units
4	7	To know the **concepts of supply and demand** and their mutual relationship, to analyse how the scarcity or abundance of a good or service influences its price, in order to develop a **critical and strategic consumption posture.**	1.4.LO7	Supply and demand concepts
			2.4.LO7	Critical and strategic consumption posture

5	7	Know facts of **the evolution of money** that culminated in the use of digital currencies and the practice of buying online to develop a vigilant and informed posture that ensures **security in virtual transactions.**	1.5.LO7	Evolution of money
			2.5.LO7	Security in virtual transactions

In our coding, LO6, LO7, LO8, and LO9 identify the learning objectives for the 6th, 7th, 8th, and 9th grades of elementary school, respectively, and LO1, LO2, and LO3 identify the learning objectives for the 1st, 2nd, and 3rd grades of high school, respectively.

From the 79 context units, we extracted 90 log units. After the first movement of organisation, we counted the log units that appeared more than once, reducing the count from 90 to 67. For example, the expression "conscious consumption" was observed in three context units and is therefore considered a single log unit with frequency 3.

Then, we move on to the categorisation process, where the log units were grouped by semantic similarity that gave rise to 13 initial categories that, after another grouping movement, provided us with five final categories, revealing the themes of financial education contemplated in the current official curriculum of public schools in Paraná, namely: *management of financial resources, money, work and income, rights and duties of the citizen* and *consumption*, which will be analysed and discussed in the next section.

RESULTS AND ANALYSIS

To understand what the curriculum documents reveal about the official financial education curriculum in Paraná through the lens of critical curriculum theories, we must unveil its latent ideological content (Apple, 2006, p. 40) through an immanent critique that is "the affirmation of difference, of refusal to confuse appearance and essence" and dialectical thinking that "as a form of criticism, unveils values that are often denied by the social object of analysis" (Giroux, 1983, p. 16).

A first point we must take into account is the rapid rise in the importance of financial education in Paraná's education system. Since 2020, when it first appeared in a Paraná curriculum document as a learning path for the flexible part of high school, until 2026, when it was considered a curriculum

component of basic general education, financial education doubled its workload in high school, where it was first implemented, and expanded to the final years of elementary school.

At first glance, these changes in nomenclature and workload may go unnoticed. However, they are in line with what the OECD documents indicated in relation to the inclusion of financial education in basic education: that governments should decide whether it would be mandatory or elective, whether it would be an autonomous subject or part of existing subjects and that it should compete for space with other emerging themes (Silva & Powell, 2014).

In Paraná, the change in the organisation of high school promoted by the BNCC in 2018 was used so that financial education became an autonomous and mandatory subject, primarily in the workload for training itineraries, without due debate with society and the school community, so that the other transversal contemporary themes did not have the same approach in the curriculum documents.

With the High School Reform in 2024 and the reduction in the workload of formative itineraries, Normative Instruction 006/2026 began to consider financial education a curriculum component directly linked to Mathematics and its Technologies, transferring it to basic general education, where the workload increased.

In practice, it is as if financial education had become a field of study or a sub-area of mathematics, unsupported by the literature or academia. This, in addition to transferring part of the workload from Mathematics to Financial Education, lends legitimacy to the latter by linking it to a consolidated body of knowledge. Thus, Paraná met all of the OECD's requirements to give the theme importance in the school curriculum.

Although considered part of the mathematics area, it is important to emphasise that mathematical content is not the main focus of financial education in Paraná, as revealed by the categories emerging from our analysis, which help us better understand what, according to the official curriculum of Paraná, should be taught in financial education. In addition, the frequency of each category indicates the most and least recurring themes, and it also points to differences in the importance given to each.

Table 1 below depicts the initial and final categories, as well as their absolute ($\boldsymbol{f_a}$) and relative ($\boldsymbol{f_r}$) frequencies.

Table 1

Initial and final categories resulting from the analysis of a financial education curriculum document in Paraná

Initial categories	f_a	f_r	Final categories	f_a	f_r
Concept and use of credit	6	6.98%	Financial resources management	34	39.53%
Indebtedness	2	2.33%			
Financial planning and organisation	19	22.09%			
Investment	7	8.14%			
Consumption and consumerism	5	5.81%	Consumption	17	19.77%
Conscious consumption	12	13.95%			
Entrepreneurship	7	8.14%	Work and income	14	16.28%
Labour market and collective organisations	7	8.14%			
Tax and fiscal education	5	5.81%	Rights and duties of the citizen	11	12.79%
Digital security	2	2.33%			
Social inspection	4	4.65%			
History of money	2	2.33%	Money	10	11.63%
Functions of money	8	9.30%			

The *financial resources management* category has the highest frequency (39.53%) and covers the themes of credit, indebtedness, financial organisation, and investments. The prominence of this theme aligns with the OECD proposal for school financial education, which "aims to focus on personal finance and that this education should influence students in their financial habits and attitudes" (Silva & Powell, 2013, p. 6).

In this category, indebtedness is treated as a consequence of the individual's lack of planning and organisation or the contracting of credit

without due analysis of the ability to pay. There is concern that the individual understands the modalities of credit and the interest charged on loans, thereby associating the contracting of credit with desires or needs of consumption.

Financial planning is portrayed both as a way to avoid indebtedness and to establish and meet long-term goals, with investments seen as a means to increase equity, mainly through fixed- and variable-income investments and even cryptocurrencies. In general, we are convinced that the problems and solutions in personal finance stem solely from the organisation and management of financial resources.

Although the topics addressed in the *financial resources management* category are important, we must emphasise that responsibility for failure or financial success lies solely with the individual, without considering that the organisation of the economic and banking system is part of the problem of indebtedness or of large financial returns.

The second most frequent category is *consumption*, at 19.77%, with a focus on understanding consumption habits and their impact on financial planning. In many instances, consumption is addressed within the same learning objective (context unit) in which themes of financial resource management emerged, because indebtedness is associated with the desire to obtain goods and services for which one lacks the necessary resources. In this theme, it is not explained that the incentive to excessive consumption is characteristic of the capitalist economic system and that the production and obtaining of often superfluous goods are its economic drivers.

Another point in this category is conscious consumption, which examines the consequences of consumption decisions. Most of the time, it is about the financial consequences for the individual himself and, to a lesser extent, the environmental and social consequences are addressed. The context of this theme does not seem to consider other consequences related to conscious consumption, such as the incompatibility between conscious and sustainable consumption and the economic model in which we are embedded.

The *work and income* category, with a frequency of 16.28%, deals with entrepreneurship and the dynamics of the labour market (labour legislation, social security, professional insertion, cooperativism, and associativism). In this category, the highlight is entrepreneurship, which is always associated with positive characteristics such as proactivity, creativity, innovation, and inventiveness, thereby supporting the claim that “financial education promotes entrepreneurship as a life posture” (Paraná, 2026, p. 5).

The great focus given to entrepreneurship in the *work and income* category aligns with a vision that normalises the precariousness of work and, once again, shifts the responsibility for generating income onto the worker. It is even stated that the generation of extra income naturalises the situation of workers who, through their work, whether self-employed or under a formal contract, cannot cover their expenses.

Despite appearing in a very discreet way, the discussion of labour and social security laws stands out positively, which directly impacts the life of the worker. In this theme, one can insert current issues in the world of work, such as outsourcing and the platforming of services.

The *rights and duties of the citizen* category, with 12.79% of occurrences, address knowledge and understanding of fiscal and tax legislation, digital security in financial transactions, and the importance of monitoring the population regarding the use of public money.

The topics covered in this category allow the student to gain a broader view of money in our society and can establish an understanding of the importance of taxes for the maintenance of public services and of individuals' participation in the oversight of public resources.

Finally, the *money* category, with 11.63%, deals with the evolution of money over time, its function as a medium of exchange, value attribution, and wealth accumulation, as well as different currencies and currency conversions.

In general, there is a convergence between the categories *management of financial resources, money, work and income, rights and duties of the citizen* and *consumption,* which reveal the themes of the official curriculum of financial education in Paraná and the topics recommended by the OECD, which are: money and transactions; planning and management of finances; risks and rewards; financial landscape (consumer law and a broader understanding of financial, economic and social systems) (Silva & Powell, 2014, p. 14).

Despite Normative Instruction 006/202 instituting Financial Education as an integral component of the mathematics curriculum matrix, the themes that emerged from the learning objectives do not directly concern mathematics. The document states that:

> Through an approach that uses the practical application of mathematical concepts —such as percentage, interest, statistics, and data analysis— in concrete everyday situations, financial education contributes to the development of financial

> literacy, enabling young people to better manage their resources, achieve personal goals, and have security in the future (Paraná, 2026, p. 3, emphasis added).

From this excerpt, we can infer that the presence of mathematical concepts, such as percentages, interest, statistics, and data analysis, provides a background for addressing selected topics within a specific economic and social context.

In the document, each learning objective from which the themes that will, in fact, be the central point of each class emerge is linked to a mathematics skill provided for in the BNCC, so that mathematical knowledge seems to have the function of legitimising the themes of financial education in the official curriculum of Paraná.

For example, the learning objective "to know the basic rights and duties provided for in the Statute of the Child and the Adolescent (ECA, in the Portuguese acronym) and in the Statute of the Elderly, to analyse the function of legislation in social and financial protection and to develop an empathic posture and respect for generational diversity" is linked to the EF07MA32 skill that concerns the calculation of the area of plane figures (Paraná, 2026, p. 15). Here, the teacher is responsible for the difficult task of proposing activities that meet this learning objective by calculating the area of plane figures.

Most of the time, it is possible to establish relationships between the learning objective and the mathematical skill to which it is linked. For example, the EF07MA36 skill that addresses the planning and carrying out of census or sample research with themes of social reality is associated with the learning objective "to differentiate the valorisation of being (experiences, well-being) from the prioritisation of having (accumulation of goods), to develop a reflective and conscious posture that prioritises quality of life and well-being over excessive consumption" (Paraná, 2026, p. 16). However, we can argue that achieving said learning objective would not be necessary, or that developing only the EF07MA36 skill would not be enough.

Another point of concern is the excessive focus on certain mathematical content. From the 6th to the 9th grade of elementary school, for example, of the 18 mathematical skills mentioned, four relate to the calculation of percentage, four to the reading and construction of graphs and tables, three to sample research and measures of central tendency, three to directly and inversely proportional quantities, one to operations with natural numbers, one to operations with rational numbers, and one to the calculation of areas.

In high school, there are 11 mathematical skills: four about statistics, two about simple and compound interest, one about exponential functions, one about probability, one about area and volume, one about directly or inversely proportional quantities, and one about rates and indices.

Although the aforementioned content is important, it seems overestimated, given the high workload of financial education, which reinforces the argument that mathematics serves to legitimise its inclusion in the official curriculum.

CONCLUSIONS

As discussed in the previous section, there are approximations between the topics addressed in the official financial education curriculum of Paraná, evidenced by the analysis of Normative Instruction 006/2026, which provided for the provision of financial education in the final years of elementary and high school as a curriculum component of the area of mathematics and its technologies, and the recommendations of the OECD.

Anchored in the critical curriculum theories, more than weaving relationships between the financial education proposal of Paraná and the OECD, we must ask ourselves "why" and "for whom" this official curriculum was constituted and what can be done when we understand the macro-structural reasons that led the OECD and, consequently, the government of Paraná to constitute a financial education project in schools.

Economic trends after the global financial crisis (2007–2008), technological changes and globalisation have made the economic and employment prospects for future generations more uncertain, and there are already high rates of unemployment and indebtedness among young people. Among those who work, the proportion of temporary and precarious jobs has increased. We noted that while poverty rates and longevity have increased, income and birth rates have declined across the population. Moreover, public assistance systems have been reduced in several countries (Brasil, 2020).

Faced with this bleak scenario, the option adopted by the OECD and many governments has been to transfer responsibility for their financial security to citizens, without, however, modifying or even questioning the financial and economic system that generates the problems that affect the majority of the population and that normalises situations of precariousness and inequality.

Both the themes and the way they are addressed reveal to us a project that "tries to attribute the nature of poverty and debt to individual financial misbehaviour" (Khatib, 2023, p. 113), in such a way that "the set of knowings of financial education seems to respond to the interests of the production of neoliberal subjects, encouraging autonomy, entrepreneurship of the self, flexibility, and inventiveness, holding the individual responsible for everything that happens to him" (Conrado, 2025, p. 22).

Given the above, we agree with Apple (1989, p. 54), who states that in the face of economic and political crises, education is pressured to take into account the interests and needs of capital and elite groups. We also agree that "the curriculum will be the result of conflicts between economically and culturally powerful groups and the popular classes" (p. 53).

In addition, we must deepen the role that mathematics plays in the financial education curriculum, questioning whether it is used to justify a financial education aligned with the interests of dominant groups or to foster a more critical view of the topic.

Taking into account that the official curriculum is only one of the layers of the school curriculum, we must look at the other elements that constitute it, such as books and teaching materials, the practices that are implemented by teachers and the relationships forged by teachers and students in the classroom to have an amplified vision and to outline alternatives for a financial education that in fact forms critical and emancipated citizens and not just that act according to the interests of dominant groups. After all, "we must ask what constitutes politically and ethically justifiable knowledge before we adventure on teaching it" (Apple, 1989, p. 46).

ACKNOWLEDGMENTS

We thank the members of the Interdisciplinary Group of Studies in Modelling in Mathematics Education (GIEMEM) for their contributions to the preparation of this article. We thank the Federal Institute of Paraná for granting full leave for AAFA qualification.

AUTHORSHIP CONTRIBUTION STATEMENT

AAFA and LAK conceived the idea and the theory presented, and carried out the production, analysis, discussion, and interpretation of the data. Both authors actively participated in the preparation, reading, review, and approval of the final version of the work.

DATA AVAILABILITY STATEMENT

The data that support the results of this study will be made available by the corresponding author, AAFA, upon reasonable request.

REFERENCES

Apple, M. (1989). Currículo e poder. *Educação e realidade.* v. 14, n. 2, jul/dez de 1989, p. 46-56.

Apple, M. (2006). *Ideologia e currículo.* Tradução Vinícius Figueira. 3. ed. Artmed.

Bardin, L. (2016). *Análise de conteúdo.* Tradução Luís Antero Reto & Luiz Pinheiro. Edições 70.

Borges Netto, M & Lucena, C. (2018). As reivindicações dos trabalhadores pela instrução pública no século XIX: uma leitura a partir da obra de Karl Marx e Friedrich Engels. *In*: Nagel, L. H.; Carvalho, E. J. G. & Machado, M. C. G. (orgs.). *Bases teóricas e práticas da Educação brasileira.* Eduem.

Brasil (2010). Estratégia Nacional de Educação Financeira. https://www.planalto.gov.br/ccivil_03/_ato2007-2010/2010/decreto/d7397.htm

Brasil (2018). *Base Nacional Comum Curricular*. Ministério da Educação. https://basenacionalcomum.mec.gov.br/abase/

Brasil (2019). *Temas Contemporâneos Transversais na BNCC:* Contexto Histórico e Pressupostos Pedagógicos. Ministério da Educação. https://basenacionalcomum.mec.gov.br/images/implementacao/contextualizacao_temas_contemporaneos.pdf

Brasil (2020). *PISA 2021*: matriz de referência de análise e de avaliação de letramento financeiro. Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. https://download.inep.gov.br/publicacoes/institucionais/avaliacoes_e_exames_da_educacao_superior/matriz_de_referencia_de_analise_e_de_avaliacao_de_letramento_financeiro_pisa_2021.pdf

Conrado, G. D. R. (2025). *Políticas Curriculares para a Educação Financeira:* ressonâncias em dizeres de professores que ensinam matemática. Tese (Doutorado em Educação em Ciências e Matemática) - Programa de Pós-Graduação em Educação em Ciências e Matemática, Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre.

Fontana, F. & Pereira, A. C. T. (2023). Pesquisa Documental. *In:* Magalhães Júnior, C. A. O. & Batista, M. C. (orgs). *Metodologia da Pesquisa em Educação e Ensino de Ciências.* 2. ed. Atena, p. 42-58.

Forte, C. M. J. (org.) (2021). *Estratégia Nacional de Educação Financeira (ENEF):* em busca de um Brasil melhor. 2. ed. Riemma.

Gil, A. C. (2002). *Como elaborar projetos de pesquisa.* 4.ed. Atlas.

Giroux, H. (1983). *Pedagogia radical:* subsídios. Tradução Dagmar M. L. Zibas. Cortez: Autores Associados.

Giroux, H. (1988). *Escola crítica e política cultural.* Tradução Dagmar M. L. Zibas. Cortez: Autores Associados.

Moraes, R. (1999). Análise de conteúdo. *Revista Educação.* v. 22, n. 37, p. 7-32.

Moreira, A. F. B. & Tadeu, T. (orgs) (2013). *Currículo, cultura e sociedade.* 12. ed. Cortez.

Paraná (2018). *Referencial curricular do Paraná:* princípios, direitos e orientações. 2018.

Paraná (2020). Instrução Normativa Conjunta nº 011/2020 - DEDUC/DPGE/SEED. Dispõe sobre Matriz Curricular do Ensino Médio na rede pública estadual de ensino do Paraná. https://www.educacao.pr.gov.br/sites/default/arquivos_restritos/files/documento/2021-01/instrucaonormativa_112020_curriculoem.pdf

Paraná (2021). Instrução Normativa Conjunta nº 008/2021 - DEDUC/DPGE/SEED. Dispõe sobre a Matriz Curricular do novo

modelo de oferta para o Ensino Médio na rede pública estadual de ensino do Paraná a partir do ano letivo de 2022. https://www.educacao.pr.gov.br/sites/default/arquivos_restritos/files/documento/2021-12/008_InstrucaoNormativaConjunta_MatrizCurricular_NEM_redepublicaestadualdeensinodoPr.pdf

Paraná (2023). Instrução Normativa nº 007/2023 - DEDUC/SEED. Instrui as instituições de ensino da rede pública estadual quanto à oferta e prática docente para a Educação Financeira. https://www.documentador.pr.gov.br/documentador/pub.do?action=d&uuid=@gtf-escriba-seed@c53a912c-5687-42f8-9969-664db07b6d61&emPg=true

Paraná (2025). Instrução Normativa Conjunta n.º 015/2025 - DEDUC/DPGE/SEED. Dispõe sobre a Matriz Curricular do Ensino Médio da rede estadual de ensino do Paraná. https://www.documentador.pr.gov.br/documentador/pub.do?action=d&uuid=@gtf-escriba-seed@30ae07c4-159d-46f9-ac0e-48752b5a47fa&emPg=true

Paraná (2026). Instrução Normativa n.º 006/2026 – DEDUC/SEED. Dispõe sobre a oferta de Educação Financeira como componente curricular nas instituições de ensino da rede pública estadual do Paraná. https://www.documentador.pr.gov.br/documentador/pub.do?action=d&uuid=@gtf-escriba-seed@be6ae0ad-8bd1-4b4d-8ec9-257352f3f166&emPg=true

Sampieri, R. H., Collado, C. F. & Baptista Lucio, M. P. (2013). *Metodologia de Pesquisa.* 5. ed. Penso.

Silva, A. M. & Powell, A. B (2014). Educação Financeira na Escola: a perspectiva da Organização para Cooperação e Desenvolvimento Econômico. *Boletim GEPEM*, n. 66, p. 3-19, jan./jun. 2014. https://doi.org/10.69906/GEPEM.2176-2988.2015.44.

Silva, M. R., Barbosa, R. P. & Körbes, C. (2022). A reforma do ensino médio no Paraná: dos enunciados da Lei 13.415/17 à regulamentação

estadual. *Revista Retratos da Escola*, Brasília, v. 16, n. 35, p. 399-417, mai./ago. https://doi.org/10.22420/rde.v16i35.1473

Silva, P. O. & Mazzi, L. C (2024). Uma trajetória histórica da Educação Financeira: da OCDE até a nova ENEF. *Educação Matemática Debate*, v. 8, n. 15, p.1-19, ago. https://doi.org/10.46551/emd.v8n15a10

Silva, T. T. (2004). *Documentos de Identidade:* uma introdução às teorias do currículo. 2. ed. Autêntica.

Todos pela Educação (2024). *Novo Ensino Médio:* Análise do Projeto de Lei aprovado no Congresso Nacional. https://todospelaeducacao.org.br/wordpress/wp-content/uploads/2024/07/novo-ensino-medio-analise-do-todos-pela-educacao.pdf

Young, M. (2014). Teoria do currículo: o que é e por que é importante. Tradução Leda Beck. *Cadernos de Pesquisa.* v. 44, n.151, p.190-202, jan./mar. https://doi.org/10.1590/198053142851