





A historical trajectory of Financial Education: from OEEC to the new ENEF

Abstract: This paper discusses the relevant historical aspects of Financial Education. The aim is to contribute to a broad understanding of how the subject has been built up, changed and become an everyday topic. We start from the creation of the Organisation for European Economic Co-operation (OEEC), through the Organisation for Economic Cooperation and Development (OECD), which developed Financial Education, until we arrive in Brazil, with the Estratégia Nacional de Educação Financeira (ENEF — National Strategy for Financial Education), in 2010, updated in 2020. The historical trajectory of the OECD and ENEF proposals shows a market approach to Financial Education. Over the years, in the context of education and Mathematics Education that questions the neoliberal system and seeks social transformation.

Universidade Estadual Paulista Rio Claro, SP — Brasil © 0000-0001-7212-5994 ⊠ priscila.o.silva@unesp.br Lucas Carato Mazzi

Priscila de Oliveira e Silva

Universidade Estadual Paulista Rio Claro, SP — Brasil D 0000-0003-3395-3724 Iucas.mazzi@unesp.br

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Una trayectoria histórica de la Educación Financiera: de la OECE a la nueva ENEF

Resumen: Este artículo expone aspectos históricos relevantes que constituyeron la Educación Financiera. El objetivo es contribuir a una comprensión amplia de cómo el tema se construyó, modificó y se convirtió en un tema presente en la vida cotidiana. Partimos de la creación de la Organización Europea para la Cooperación Económica (OECE), pasando por la Organización para la Cooperación y el Desarrollo Económico (OCDE), que desarrolló la Educación Financiera, hasta llegar a Brasil, con la Estrategia Nacional de Educación Financiera (ENEF), en 2010, actualizado en 2020. Con la trayectoria histórica, se observa una visión mercadológica de la Educación Financiera en las propuestas de la OCDE y ENEF. A lo largo de los años, en el contexto educativo y de la Educación Matemática, las discusiones han madurado, dando como resultado una Educación Financiera que cuestiona el sistema neoliberal y busca transformaciones sociales.

Palabras clave: Educación Matemática. Educación Financiera. Enfoque Histórico.

Uma trajetória histórica da Educação Financeira: da OECE até a nova ENEF

Resumo: Este artigo expõe aspectos históricos relevantes que constituíram a Educação Financeira. O objetivo é contribuir para uma compreensão ampla de como a temática se construiu, modificou-se e tornou-se um tema presente no cotidiano. Partimos da criação da Organização Europeia de Cooperação Econômica (OECE), passando pela Organização para a Cooperação e Desenvolvimento Econômico (OCDE), que desenvolveu a Educação Financeira, até chegar no Brasil, com a Estratégia Nacional de Educação Financeira (ENEF), em 2010, atualizada em 2020. Com a trajetória histórica, observa-se uma abordagem mercadológica da Educação Financeira nas propostas da OCDE e ENEF. Ao longo dos anos, no contexto educação Financeira que questiona o sistema neoliberal e busca transformações sociais.



Palavras-chave: Educação Matemática. Educação Financeira. Abordagem Histórica.

1 Introduction

Financial Education (EF) has been a much-discussed subject in recent years, both nationally and internationally. The way this topic is understood depends on who is presenting it and what interests they have in developing it. In this sense, EF can be considered undefined (Mazzi and Baroni, 2021), taking on different strands and purposes, and can even be contradictory in nature.

Baroni (2021, p. 79) emphasizes that Financial Education should seek to understand financial life "through a critical analysis of reality", stating that knowing the paths of discussions on Financial Education is important to reflect on its role in society. Thus, in this paper¹, we aim to present some relevant historical aspects that have contributed to Financial Education gaining more prominence in our daily discussions. Figure 1 below summarizes the path we intend to follow. It should be noted that this is a possible trajectory, so that other researchers could highlight different elements that they consider important for presenting this path.



Figure 1: Historical aspects that influenced the development of Financial Education (Own elaboration, 2024)

As highlighted in Figure 1, we will begin our discussion with the post-war period, culminating in the creation of the Organisation for European Economic Co-operation (OEEC) shortly after the end of the Second World War. Next, we will present the Organisation for Economic Cooperation and Development (OECD), its first steps and its main functions, until we reach the creation and development of the *Financial Education Project*, in 2003, which, after its conclusion, impacted several countries with regard to the act of educating citizens

¹ This paper is an excerpt from a master's thesis defended in the Postgraduate Program in Mathematics Education at the Universidade Estadual Paulista (Unesp - Rio Claro), written by the first author (Silva, 2024) and supervised by the second author.



financially.

Subsequently, we will focus on Brazil, in particular the National Strategy for Financial Education (ENEF), established in 2010, which has drawn up proposals to promote EF in different contexts and in multiple ways. Finally, we will direct the discussions to the educational sphere, especially Mathematics Education, presenting some important understandings and contributions to the subject.

2 Historical aspects of the creation and development of the OECD

According to Baumann (2021), in order for the European economy to participate in international trade again after the Second World War, it had to be rebuilt. The Organisation for European Economic Co-operation (OEEC) was founded in 1948 with the aim of strengthening economic relations between European countries. After the continent's reconstruction mission was completed in 1960, the Convention for the transformation of the OEEC into the Organisation for Economic Cooperation and Development (OECD) was signed in Paris.

The constitution of the OECD "has as its fundamental antecedent the multilateral efforts to administer the Marshall Plan² [...]" (Godinho, 2018, p. 23). This plan was established as a response to the difficulties encountered in the initial reconstruction of the continent, on the one hand increasing the scale of US financial aid and, on the other, requiring the commitment of European countries to the creation of a multilateral body for the implementation of reconstruction.

According to the author, in July 1947, the Conference on European Economic Cooperation was held in Paris, which resulted in the formation of the Committee for Economic Cooperation (henceforth CCEE), whose aim was to design the economic recovery program. With US support for the proposals presented, the CCEE began to evaluate the possibility of "establishing a permanent organisation, dedicated to managing the Marshall Plan and focused on the objectives of promoting free trade, production growth, full employment and financial stability" (Godinho, 2018, p. 24).

Thus, in April 1948, the OEEC was established in the Convention, composed of 16 countries³, accompanied by the United States of America (USA) and Canada, initially as observers and later as associate members. The development of the OEEC involved actions such as supporting the establishment of the European Payments Union (UEP) and the Code of Trade Liberalization, contributing to the recovery of European trade and regional growth (Godinho, 2018).

According to this author, with the recovery of regional trade, the need for US imports and the accumulation of reserves in US dollars decreased, benefiting the financial position of European countries (Godinho, 2018). However, due to factors such as the intensification of tensions associated with the Cold War⁴, the need to expand transatlantic cooperation beyond the areas reached by the OEEC and the disagreement between France and the United Kingdom,

² The Marshall Plan, known as the European Recovery Program, was the United States' main plan for the reconstruction of Europe's allied countries in the years following the Second World War, and was implemented through technical and financial assistance. The aid was divided among the beneficiary countries on a per capita basis, in which larger amounts of resources were given to the major industrial powers, as the main idea was that their revival would be essential for the overall development of Europe (Godinho, 2018).

³ Austria, Belgium, Denmark, France, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Sweden, Switzerland, Turkey and the United Kingdom.

⁴ The Cold War was a political-ideological conflict between the Soviet Union and the United States and their respective allies, the Eastern Bloc and the Western Bloc, after the Second World War (Munhoz, 2020).



the transition from the OEEC to the OECD took place. The French, supported by the US, opposed the British plan to establish a free trade area within the framework of the OECD, which damaged the effectiveness of the OECD and made its Council meetings impossible from December 1958 onwards.

Following these events, the summit held in December 1959 in Paris, with the participation of the US, the UK, France and West Germany, opened up prospects for a new transatlantic partnership. In May of the following year, the Conference on the Reconstitution of the OEEC took place, in which the participation of the USA and Canada as full members was confirmed and the new model of organisation defined, with a nomenclature directed towards the objective of economic development, initiating the discussion on the Convention model (Godinho, 2018). The new Organisation was established with

broader objectives and based on a universal vocation, aimed at consultation and coordination between member countries and based on the consolidation of the economic model of developed countries in the post-Second World War. In force from September 1961, the OECD Agreement (paper 1) stipulated the general objective of promoting policies to *achieve greater sustainable economic growth and employment* [...] in member countries and contribute to the solid economic expansion of member and non-member countries (Godinho, 2018, p. 27, author's emphasis).

This means that this new Organisation sets a counterpoint to the OEEC (which aimed to solve the internal challenges of European countries) by looking beyond the continent, promoting policies aimed at achieving greater economic growth and sustainable employment in member countries. It also intended to contribute to the sound economic expansion of member and non-member countries.

However, during the 1960s, the development of the OECD showed a continuation and reorganization of the work carried out by the OEEC in the previous decade. The 1970s, on the other hand, were marked by more significant changes in the Organisation⁵, such as the establishment of the Environment Directorate, with environmental instruments in areas such as water pollution and use, recycling and transboundary pollution (Godinho, 2018).

The scenarios of inflation and economic slowdown after the second oil crisis in the 1980s were challenges faced by the Organisation, which sought to renew itself with the International Coordination forum⁶. The discussion of issues such as expanding its membership and establishing external relations with other countries became necessary in the 1990s as a result of the "fall of the socialist regimes in the Soviet Union and Eastern Europe, the emergence of large developing economies and greater attention to certain public policy topics" (Godinho, 2018, p. 33).

2.1 Financial Education in the OECD

In this context of the Organisation's constitution and development, it is important to note that the OECD's activities are established on the basis of differentiated layers and stages, including

⁵ It should be noted that, throughout the text, we also refer to the OCDE as an Organization.

⁶ "In this context, it promoted the implementation of a Medium-Term Macroeconomic Strategy among its members, with a response to 'stagflation' centered on monetary contraction, gradual reduction of fiscal imbalances and structural adjustments, with microeconomic reforms and deregulation" (Godinho, 2018, p. 23).



(i) the collection of statistics and preparation of studies and analyses by the secretariat; (ii) discussion of public policies and exchange of national experiences; (iii) eventual negotiation of instruments; and (iv) evaluation of public policies and national commitments, within the framework of peer reviews (Godinho, 2018, p. 38).

With a view to the Organisation's development, in 2003 the subject of Financial Education was included on the agenda of its discussions, influenced by the interest of its member countries⁷ (OECD, 2005b).

The report *Better policies for better lives*, produced by the OECD in 2019⁸, states that "the long-term implications of low levels of financial literacy among the majority of the population are prompting governments to act" (OECD, 2019, p. 1), i.e. the governments of the countries analyzed in this study were concerned about the economic growth of their nations. They saw the implementation of public policies as a possible solution, i.e. the development of Financial Education strategies that would meet the financial literacy needs of individuals. This culminated in the approval (for the 2003-2004 biennium) of the proposal entitled *Financial Education Project*, developed by the following committees: *Committee on Financial Markets and the Insurance Committee* (OECD, 2005a).

It is important to note that influential organizations in the financial world, such as the World Bank and the International Monetary Fund (FMI), have also drawn up and developed proposals to financially educate the population of various countries. According to Silva and Powell (2014), the participation of these institutions has taken the form of recommendations in their technical reports on strategies to make the world market *healthier*, as well as financial support to study the impact of financial education programs in different countries. However, it was the OECD that made the study more comprehensive, since at the time, the 34 member-countries⁹ were interested in educating their citizens financially and began to be guided by the guidelines drawn up by the Organisation (OECD, 2005a).

Two years after approval by the biennium, in 2005, the research was published in a report called *Improving Financial Literacy: Analysis of Issues and Policies*. This was the first major international study on the subject, implemented in two phases. The first focused on the general population and its aim was to identify and analyze the programs on the subject offered by OECD member countries (OECD, 2005a). According to the Organisation, the aim was to describe and evaluate their effectiveness so that, through the results, it would be possible to provide information and suggestions for action in order to promote awareness and improve citizens' Financial Education (OECD, 2005a). The second phase of the research culminated in the analysis of Financial Education programs in schools and universities, as will be presented in the next section.

Silva and Powell (2013) address the issue and highlight the three important points identified by this study:

⁷ Currently, the member-countries are: Australia, Austria, Belgium, Canada, Chile, Colombia, Korea, Costa Rica, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom. In addition, six countries are candidates to join the group: Argentina, Brazil, Bulgaria, Croatia, Peru and Romania.

⁸ In 2019, the data from this movement towards financial literacy, which began in 2003, was presented.

⁹ It is worth noting that some non-member-countries were invited to take part in the project. For example, Brazil, which was later influenced by the Organization's proposal when it constituted the country's current Financial Education strategy.



- The first was an increase in the number of workers who would have to use their pensions and personal savings to finance their retirements;
- The second was the finding of a high level of indebtedness, mainly among younger consumers, due, for example, to the way they used credit cards and mobile phones;
- The third and final point showed that a large proportion of consumers did not participate in the financial system, which points to a contradictory situation, since, on the one hand, there was an increase in the number of financial transactions carried out electronically, suggesting the need for people to have a bank account, and, on the other hand, this lack of consumer participation was observed.

In general, the report (OECD, 2005a) highlighted problems that the governments of OECD member countries needed to tackle, as well as factors that increased the importance of Financial Education for citizens. These factors, in short, include

the complexity and variety of financial products available to consumers and a range of options relating to, for example, interest rates, terms and fees; people's increasing life expectancy and consumers' low levels of financial knowledge (Silva and Powell, 2013, p. 2).

In addition to these factors, it was pointed out that the Financial Education programs offered by the Organisation's member countries had a variety of topics aimed at the general public. However, some were aimed more specifically at investors, consumers, people who were not part of the financial system and those in debt (Silva and Powell, 2013).

According to Silva and Powell (2014), these programs offered basic tools for young adults to keep their budgets and savings under control when starting out in professional life, proposed a discipline for families to save, as well as skills to make good investments, for example, the indication of study. All these aspects were highlighted as possible benefits that Financial Education could bring to society.

The authors also point out that these benefits of financially educating the people suggested in the study were not only aimed at ordinary citizens, but also at the economies of the countries that would receive a significant impact from this education, although this information is not explicit in the report (Silva and Powell, 2014). Given this, we understand that the points identified by the research promote a specific vision of Financial Education: standardized, with actions aimed only at balancing the financial system, disregarding social and cultural issues that cut across individuals.

As a consequence of the report, in the same year, the Organisation published the document *Recommendation on Principles and Good Practices for Financial Education and Awareness*, presenting a set of recommendations to the governments of member countries, with the aim of promoting the development of actions pertinent to Financial Education (OECD, 2005b).

In this document, a definition of Financial Education was also given, which later provided the basis for the construction of national strategies in various countries, such as Brazil and Spain. The Organisation understands Financial Education as

the process by which financial consumers/investors improve their understanding of financial concepts and products and, through objective information, instruction and/or advice, develop the skills and confidence to become aware of financial risks and



opportunities, to make informed choices, to know where to seek help and to take other effective steps to improve their financial protection and well-being (OECD, 2005b, p. 26).

The OECD is therefore concerned about consumers' understanding of financial concepts and products. This is because, through this knowledge, they can develop the skills and confidence to make informed choices and, consequently, take care of their own financial wellbeing.

Continuing the aspects presented in the document, in addition to the global factors and the importance of Financial Education being addressed and discussed by all sectors of society, it is recommended that the subject be developed from Primary Education onwards and suggestions are made for training for educators. From this perspective of promoting Financial Education, the Organisation stresses the importance of developing a national strategy, which will help to establish concrete guidelines and develop the subject effectively (OECD, 2005b).

To monitor these financial education initiatives in different countries, the *International Network of Financial Education* (INFE¹⁰) was created by the OECD in 2008. It is considered the main vehicle for discussions and is a platform for sharing knowledge and experiences of financial education worldwide. As well as assessing the reality in each country, this makes it possible to support the design of public policies in the field of Financial Education (Vieira and Pessoa, 2020).

A significant aspect of the INFE network was the adoption of two definitions of Financial Literacy in its programs and evaluation methodologies, one aimed at adults and the other at young people. The definitions adopted are, respectively: "Financial literacy is a combination of awareness, knowledge, skill, attitude and behavior necessary to make consistent financial decisions and achieve desired individual financial well-being" (EIOPA *apud* Silva and Powell, 2014, p. 9).

Financial literacy is the knowledge and understanding of financial concepts and risks, and the ability, motivation and confidence to apply such knowledge and understanding by making effective decisions in various financial contexts in order to improve the financial well-being of the individual and society, and enabling participation in economic life (OECD apud Silva and Powell, 2014, p. 9).

Based on the first definition, the OECD/INEF developed a pilot test with the adult population, using a questionnaire to measure their financial literacy. The focus of this verification was on three components: levels of financial knowledge; financial behavior; and attitudes related to the various aspects of Financial Literacy. This is because, according to the assessment proposal, a financially literate person should have basic knowledge of fundamental financial concepts, in addition to the fact that their behaviors, attitudes and choices have a significant impact on their own financial well-being (Silva and Powell, 2014).

With regard to the second definition, the target audience for this Literacy assessment was students, whose focus was on verifying their ability to use their knowledge and skills to face real-life challenges, going beyond mastering specific curricular content. The authors explain that this definition was drawn up by a group of experts who developed the assessment

¹⁰ The page can be accessed at: https://www.oecd.org/financial/education/oecd-international-network-on-financial-education.htm.



for the Program for International Student Assessment [PISA¹¹] 2012 (Silva and Powell, 2014).

It should be clarified that, for the OECD (2012, p. 14), "Financial Literacy is concerned with how an individual understands, manages and plans personal and family financial matters". In other words, for the Organisation, Financial Literacy is directly linked to the population's personal financial issues. This highlights the importance of using these definitions to understand the organisations' perspectives on the development of Financial Education. These are the concepts that guide the projects developed by the participating countries, in particular Brazil, seeking to build a Financial Education that goes beyond economic aspects, with notes that provide a reflective and critical approach to issues that go beyond the individual.

3 The National Strategy for Financial Education: a focus on the Brazilian context

Vieira and Pessoa (2020) state that discussions on Financial Education in Brazil are not recent and that some periods have contributed to the formalization of the subject. The authors point out that, until the mid-1990s, the country was marked by the destabilization of the national currency, with high inflation rates and little access to information, which restricted financial knowledge to people who had some kind of capital.

The concern at that time was based on investment tips to preserve or multiply resources, provided by specialists in financial market products. As a result, there was no intention of teaching people how to plan, and the high inflation rates, coupled with low levels of banking, created a scenario in which planning was practically impossible (Vieira and Pessoa, 2020).

Another period highlighted by the authors as a milestone in the trajectory of Financial Education was the implementation of the Real Plan in 1994, which made it possible to stabilize the economy and reduce inflation. In that context, with the equilibrium of prices, there was an improvement in economic conditions, in the job market and in the expansion of credit (Lameira, 2004).

The control of inflation, the increase in the number of people with access to the banking system in the 2000s and the availability of credit promoted by social and economic policies made it easier for Brazilians to buy new products and services. Under these circumstances, a favorable environment was created for the growth of consumption by the average citizen (Teixeira and Kistemann Jr., 2017).

With this growth, there was a *concern* to educate the population about the "harms of excessive consumption and the importance of domestic and family planning to avoid debt and waste, preparing for a healthy and balanced financial future" (Vieira and Pessoa, 2020, p. 663). The conditions of this period were beginning to make financial planning an achievable goal for the Brazilian middle class. Literary works¹² began to appear to meet this demand, but they were still intended to provide information on how to achieve prosperity and enrichment.

The availability of these works in the early 2000s was not enough "to re-educate financial behavior and avoid the economic crisis that hit our country, causing a series of defaults in the credit market" (Vieira and Pessoa, 2020, p. 663-664). A result that comes as no surprise,

¹¹ "PISA is a knowledge-based and knowledge-generating device that combines social and technical components, it (PISA) participates in the establishment of rules for the coordination and control of public action in education" (Vilanni and Oliveira, 2018, p. 1348). This is an international assessment of learning and performance carried out every three years with students aged between 15 and 16, coordinated by the OCDE.

¹² Some of these works were presented by Vieira and Pessoa (2020): *Pai rico pai pobre*, by Robert T. Kiyosaki (1997); *Independência Financeira*, by Robert T. Kiyosaki and Sharon L. Lechter (2001); *Investimentos — Como Administrar Melhor seu Dinheiro* (2001); *Seu futuro financeiro*, by Louis Frankenberg (2000).



since the focus was not really on helping the population.

For the authors, in the midst of this scenario and with the influences acquired through participation in committees created by the OECD, in which there were discussions regarding the importance of Financial Education, Brazil developed a state policy: the National Financial Education Strategy (ENEF).

Corroborating these authors, Baroni (2021) points out that, since 2007, there has been an intensification of actions focused on the issue, influenced by the movements of the OECD, highlighting actions that preceded the constitution of this public policy, for example, the creation of the Committee for the Regulation and Supervision of Financial Markets, Capital Markets, Insurance, Pensions and Capitalization (COREMEC¹³), by the federal government, and the founding of the Working Group (GT), made up of representatives from the government, the private sector and civil society, whose aim was precisely to develop the National Financial Education Project.

Martins (2013) highlights the participation of the GT in the 3rd INFE Meeting in Paris, promoted at the initiative of the OECD in December 2009, where it was decided that the venue for the International Conference on Financial Education would be Rio de Janeiro in order to broaden the dialog on the subject in Latin America.

In mid-2009, "this GT presented a working proposal which later became the Master Plan for the Brazilian government's National Financial Education Strategy (ENEF)" (Baroni, 2021, p. 68). This plan aimed to consolidate ENEF and the actions set out in Decree No. 7.397/2010 (Brasil, 2010), approved by Deliberation n. 2/2011 of the National Committee for Financial Education (CONEF), officially published on December 23, 2010 by the government.

In general terms, ENEF is a permanent state policy that aims to promote an ecosystem of financial and social security education, with a view to "contributing to the strengthening of citizenship, the efficiency and soundness of the national financial system and more autonomous and conscious decision-making by Brazilian society" (Brasil, 2018, p. 3). With regard to CONEF, it was established by ENEF as its governance committee, made up of government bodies and entities, as well as four civil society¹⁴ organisations, and is responsible for drawing up guidelines for actions and projects to disseminate Financial Education in the country, taking into account the institution's objectives and goals.

On May 16, 2007, Brazil was designated as a key-partner¹⁵ of the Organisation, which aims, with this commitment, to,

increase the involvement of major emerging economies in the daily work of the Organization, promote the sharing of perspectives and policy approaches through their partnerships with OECD bodies, adherence to OECD legal instruments and

¹³ In general, the Committee's aim is to promote the coordination and improvement of the work of the federal public administration entities that regulate and supervise the financial, capital, insurance, pension and capitalization markets, with the aim of guaranteeing the stability of the national financial system (Brasil, 2020). In 2008, the Committee carried out a nationwide survey to measure the level of financial education of the Brazilian population.

¹⁴ For example: the Central Bank of Brazil (BCB); the Securities and Exchange Commission (CVM); the National Supplementary Pension Superintendence (Previc); the Private Insurance Superintendence (Susep); the Ministry of Finance; the Ministry of Social Security; the Ministry of Justice; the Brazilian Association of Financial and Capital Market Entities (Anbima); the Stock Exchange; the Commodities and Futures Exchange (BM&FBovespa).

¹⁵ To strengthen cooperation with Brazil, China, India, Indonesia and South Africa, the Organization developed a program of greater engagement, which defined them as key partners (OCDE, 2023).



integration into the Organization's statistical databases and policy indicators (OECD, 2023).

In this partnership perspective, a cooperation agreement between Brazil and the OECD was signed in July 2015, institutionalizing national participation in various forums developed by the Organisation. This agreement has deepened, systematized and strengthened ties between them. The most recent move in this partnership was made on January 25, 2022, when the OECD Council decided to open access discussions with Brazil (OECD, 2023).

In the paths traced by ENEF, the influence of OECD ideals on its practices is increasingly evident. This is because, with each new decree, the role of education representatives on CONEF has been reduced. In 2019, for example, the institution of the Grupo de Apoio Pedagógico (GAP — Pedagogical Support Group) was revoked and, in 2020, the 2010 Decree was revoked in its entirety and replaced, on July 9 of that year, by Decree n. $10.393/2020^{16}$, which brings some changes.

One of these was the replacement of CONEF by the Brazilian Financial Education Forum (FBEF), which, despite being a similar body, made changes, such as replacing representatives of civil society (positions previously occupied by the Ministries of Finance and Social Security) with representatives of the secretariats that make up the Ministry of Economy. Furthermore, the free nature of Financial Education actions, guaranteed by the 2010 Decree, was removed from this new version and the Ministry of Education was downgraded to the last body responsible for directing, supervising and promoting the subject in the country (Brasil, 2020).

In addition, the removal of topics such as citizenship, conscious consumption and decision-making from the discussion shows a Financial Education that is focused on insurance, social security and taxation (Melo *et al.*, 2021), influenced by the OECD. In this way, we highlight the setback caused by the new ENEF (Brasil, 2020) by allowing people and companies to commodify Financial Education.

During the 13 years since it was set up, ENEF has been developing actions to expand Financial Education in Brazil, according to its own ideals (which are questionable). The main strategies are aimed at both Financial Education in schools and the program aimed at adults, which covers retirees with a maximum income of two minimum wages and women who benefit from Bolsa Família (Brazil, 2018).

These plans are divided into sectoral (actions and programs developed by FBEF members), aligned with the guidelines proposed by ENEF and transversal programs (ENEF actions), which aim to address topics such as protection, financial planning, savings, investment, credit and consumer protection, and are not the exclusive responsibility of a particular body or entity (Brasil, 2018). The National Financial Education Week, which aims to disseminate it throughout the country; the Financial Education in Schools Program, which proposes taking it into the school environment; the ENEF Seal, which aims to recognize initiatives related to it; the Itinerant Financial Education Project; the National Mapping of Initiatives; and the Financial Education Network are examples of these actions (Brasil, 2018).

For Vieira and Pessoa (2020), the activities developed by ENEF are important for disseminating the issue in Brazil. However, they are not enough to promote it in the country, as they need to be constantly problematized. In line with these authors, Silva, Kistemann Jr. and

¹⁶ Before this replacement, the text of Decrees n. 8.584/2015 and n. 10.087/2019.



Vital (2014) state that the proposal to introduce Financial Education needs to be expanded.

Corroborating these authors, especially with regard to Financial Education in the context of Education, we understand that the implementation of Financial Education centers in only four Brazilian states — considering that the country has 26 states, in addition to the Federal District, which has approximately 5,568 municipalities (IBGE, 2023) — exposes a great lack in the dissemination and effective implementation of the theme. This lack is also evident in the research data (which generated this paper), both in the lack of teacher training and teaching materials and in the problematization of the constitution of a market-based Financial Education, proposed by the aforementioned bodies.

3.1 Financial Education in Brazilian Basic Education

Returning to the discussion about the paths taken by Financial Education from an educational perspective, based on a chronological order of events starting with the OECD initiative (justified above), we will look at the second part of the study carried out by the Organisation in 2005. The aim was to describe and analyze Financial Education programs available in schools and universities in member countries.

In the aforementioned report (OECD, 2005b), one of the recommendations was that financial education should start at school, considering that people should be educated as early as possible. From the perspective of the project aimed at schools, in 2008 the report *Financial Education Programmes in Schools: Analysis of selected Current Programmes and Literature Draft Recommendations for Best Practices* was published. This document showed the analysis of the Financial Education programs developed by the member countries in the educational sphere, as well as the study carried out with the available research regarding the effectiveness of these initiatives with students (Mundy, 2008). The consensus was that the purpose of introducing the subject in schools was to help students manage their money throughout their lives (Mundy *apud* Silva and Powell, 2014).

One of the issues raised was whether or not Financial Education should be compulsory in the school curriculum. The Organisation did not take a position on this, but reported on the measures adopted in the countries surveyed, highlighting it in some of them.

In this context of compulsory education — and given the Organisation's influence on ENEF — we would point out that, with its establishment in 2010, actions were taken to implement the subject in the Basic Education curriculum. For example, the Pedagogical Support Group (GAP) was set up to advise CONEF on the pedagogical elements for Financial and Social Security Education, whose president at the time was a representative of the Ministry of Education (Souza, 2015). However, there were changes and consequently setbacks with the repeal of the 2010 Decree in 2020, as discussed above.

The invitation made to Brazil to participate in the project proposed by the OECD in 2005, the very constitution of the ENEF Master Plan in 2010, developed by the GT after its participation in the 3rd INFE Meeting, and the cooperation agreement signed between Brazil and the OECD in 2015 are aspects that show the influence of the Organisation's perspectives on the constitution of the National Strategy. Emphasizing this position, Baroni (2021) states that the definition of Financial Education proposed by the National Strategy corroborates the concept published in 2005 by the OECD. According to CONEF, Financial Education is

the process by which individuals and societies improve their understanding of financial concepts and products, so that, with clear information, training and guidance,



they acquire the values and skills necessary to become aware of the opportunities and risks involved and then make well-informed choices, know where to seek help, take other actions that improve their well-being, thus contributing consistently to the formation of responsible individuals and societies, committed to the future (Brasil, 2011, p. 20).

When we look at Financial Education from this perspective, we once again see a proposal centered on the individual who is solely responsible for their financial growth, disregarding the obligations of the State, the context in which they are inserted, the problems, in other words, it doesn't really take the human being into account. Corroborating this perspective, Moraes and Freitas (2021) indicate that the issue, in this sense, is intrinsically linked to the accumulation and maintenance of resources.

Mazzi and Baroni (2021) point out that considering Financial Education as a means of educating about money presupposes a marketing view of it, suggesting a passive role for the citizen, whose only responsibility is to consume in the best possible way. In the same direction, authors such as Silva and Powell (2013), Saraiva (2017), Pessoa, Júnior and Kistemann Jr. (2018), Melo and Pessoa (2019), Silva, Pessoa and Carvalho (2019) and Baroni (2021) share the view that the ideas developed by the OECD and ENEF expose a reductionist perspective of Financial Education by focusing on economic aspects, without much emphasis on a reflective and critical approach to issues such as social inequality, unemployment, educational deficiencies, among many other aspects that go beyond the individual (Saraiva, 2017).

That said, we believe that Financial Education should be approached in such a way that it can be reflected on and debated, expanding its field of financial knowledge, in other words, "it needs to be discussed from the perspective of emancipatory, critical and reflective teaching" (Silva, Pessoa and Carvalho, 2019). From this perspective, we consider the concept of School Financial Education (EFE) proposed by Silva and Powell (2013, p. 12), who see EFE as

a set of information through which students are introduced to the world of money and stimulated to produce an understanding of finance and economics through a teaching process that enables them to analyze, make informed judgments, decisions and critical positions on financial issues involving their personal lives, families and the society in which they live.

The aforementioned authors criticize the fact that there is a tendency to limit discussions on Financial Education to issues related to personal finances. For this reason, they propose that students get to know the world of money, analyzing and making informed judgments about the financial world, especially by developing critical positions about their personal and family financial lives and those of the society in which they live. In order to make this broader vision clear and connected to discussions beyond finance, Silva and Powell (2013) present a curriculum proposal — which is neither fixed nor plastered — but which exemplifies possible topics that can permeate Financial Education in Basic Education.

Table 1: Financial Education curriculum proposal

I — Basics of finance and economics	II — Personal and family finance
In this area, the topics for discussion would be, for	This strand would cover topics such as: financial
example, money and its function in society; the	planning; managing personal and family finances;
relationship between money and time; the notions	money management strategies; saving and
of interest, savings, inflation, profitability and	investing finances; household budgeting; and
liquidity of an investment; financial institutions;	taxes.
the notion of assets and liabilities and financial	



investments.	
III — The opportunities, risks and pitfalls of managing money in a consumer society This axis would explore topics such as: investment	psychological dimensions surrounding EF This axis would cover topics such as:
opportunities; the risks of investing money; the pitfalls of consumption behind marketing strategies and how the media encourages people to consume.	consumerism and consumption; the relationship between consumerism, waste production and environmental impact; wages, social classes and social inequality; need vs. desire; ethics and money.

Fonte: Baseado em Silva e Powell (2013, p. 14)

This structure is based on "three dimensions — personal, family and social — and has four guiding axes" (Mazzi and Domingues, 2020, p. 4). Corroborating these authors, we understand that it is possible to dialog with the four axes, going through each of these blocks, which constitutes the teaching of Financial Education not plastered and highlights the breadth of the subject.

In this way, we seek Financial Education that can invite students to think critically about the economic and social situations that surround them, with a view to improving their quality of life in the personal, family and social spheres. Taking into account the school context, we must emphasize that Financial Education became a compulsory subject in the Basic Education curricula in 2017, with the institution of the National Common Curriculum Base — BNCC (Brasil, 2017).

Despite being included as a cross-cutting theme, Mazzi, Oliveira and Lima (in press) point out that the expression *Financial Education* appears almost exclusively in the Mathematics curriculum component, mentioned only once in the Applied Human and Social Sciences, without, however, being proposed in the specific competences or skills of this area, which makes it exclusive to the specific competences of Mathematics. This diverges from what is proposed with transversality. This move by the BNCC, while highlighting the leading role of Mathematics, has the consequence that the action of educating financially in Basic Education is attributed especially to the Mathematics teacher.

Furthermore, considering the problem highlighted by Vieira and Pessoa (2020, p. 667) that "there are teachers who don't know how to approach the subject in the classroom, schools that haven't yet organized their curriculum to work in a cross-curricular and interdisciplinary way and training processes that guide teachers", we will discuss the role of the Mathematics teacher in relation to the subject in the next section.

4 Training in Financial Education: what the OECD and ENEF say?

The recommendation that Financial Education should start at school, taking into account the fact that people should be financially educated as early as possible, is mentioned in the *Good Practices* section of the second document published by the Organisation (OECD, 2005b). As for programs that favor the use of classrooms, it is suggested in the document that "educators should be provided with appropriate education and skills. In this sense, the development of 'train the trainer' programs and the provision of specific information material and tools for trainers should be encouraged" (OECD, 2005b, p. 7).

In view of the OECD's directives on the need to promote the development of programs with the aim of financially training educators, as well as indicating that public policies should encourage the provision of information material and tools to these professionals, Baroni (2021) questions what the proper education and competence of educators would be, as explained in the



document. The author points out that, between the lines of the definition, "the organisation assumes that there is a financial market and that Financial Education should ensure that people are aware of this market, using its products in the best possible way, thinking about the protection and financial well-being of the subject" (Baroni, 2021, p. 67).

This is a view that seems to limit the scope of Financial Education to working with personal finances and consumer behavior, disregarding reflections on elements in the social, political and economic context. Baroni (2021) points out that, when it is suggested that trainers be trained, there seems to be a supremacy of techniques to be applied, to the detriment of these broader reflections. She also mentions that it is necessary to pay attention to the role of the teacher, especially the math teacher, so that "it is not reduced to teaching how to consume and teaching the calculations involved in financial negotiations, as if calculating and planning were sufficient actions to make a decision" (Baroni, 2021, p. 177). In this direction, Barbosa, Araújo and Paes (2020) affirm the need for Financial Education that is not restricted to teaching types of bank investments and Financial Mathematics, from the Early Years of Primary School.

With regard to ENEF, the training, courses and programs developed, in general, are in partnership with private organisations, companies and banks that have the opportunity to further strengthen their neoliberal influences in education, seeking to guide their customers and users about financial products, in a way that transforms Financial Education into a commodity to be sold (Mundy, 2008; Savoia, Saito and Santana, 2007). Teacher training programs, for example, have been intensified and expanded by the Association for Financial Education in Brazil (AEF¹⁷), in partnership with Serasa Consumidor and Serasa Experian (Brasil, 2018), private bodies.

Although, in 2018, ENEF designed these training programmes and created extension, improvement and specialization courses in Financial Education for educators, the study by Vieira and Pessoa (2020), when exploring how different countries organize their national Financial Education programmes and strategies, points out that Brazil's Financial Education policy does not yet carry out this preparation in a systematic way.

These courses were set up through Technical Cooperation Agreements (ACTS) between the AEF, education departments and federal universities after the implementation of the four Financial Education hubs (in Tocantins, Minas Gerais, Rio Grande do Sul and Paraíba) in the 2017-2018 biennium, as mentioned above. The development of these programs by ENEF, in partnership with private bodies, their non-systematization, as well as the emphasis on individual income management, promotion and market consolidation in their objectives (Brasil, 2017), exalt the relevance of financial resources to the detriment of other factors, reinforcing the view brought by the OECD.

Although the BNCC presents it as a contemporary, cross-cutting theme that is pertinent to various areas of study, it does not clearly show what it considers Financial Education and summarizes it as aspects linked to Mathematics, highlighting only interest rates, inflation, investments and taxes when working, which limits the view of it.

Given the above, we can understand that the ideas present in these documents that guide Financial Education are related to educating for the market (Brasil, 2018). In this way, it is up to the educational systems, networks and schools, in their respective spheres, to have the autonomy and competence to incorporate them into their curricula (Brasil, 2018). However,

¹⁷ A Civil Society Organization of Public Interest (OSCIP), created in 2011 to guarantee exemption, transparency and ensure the transversality of actions for Financial Education in the country, coordinating and executing ENEF actions and programs for the dissemination of the theme (Brasil, 2018).



this approach leaves aside the limitations and difficulties of each educational institution, allowing gaps to open up in relation to how to educate financially.

In this perspective of how to educate financially, the study by Souza (2015) presents a survey of training initiatives in Financial Education by institutions in Brazil, highlighting that there is little research aimed at training teachers to teach in Basic Education. Most focus on personal finance education, prioritizing "learning focused on personal finance planning and capital markets concepts. They show that knowledge is the basis for creating a culture of savings and wealth building in the country" (Souza, 2015, p. 32).

This means that, apart from the OECD, the ENEF, the BNCC and their supporters in general, initiatives in Brazil are moving towards a focus on money and the commodification of Financial Education. We stress that we are not denying the possibility of individuals overcoming poverty and achieving financial independence. However, we emphasize that this is not the focus of Financial Education, especially for the OECD, ENEF and BNCC, "since they support an apathetic view of the citizen, who must get rich at any cost [...]" (Menecucci, 2022, p. 26).

With this, we understand that, in addition to the problematization surrounding the principles and constitutions of the programs developed by ENEF (and their still precarious dissemination), other initiatives that could help educators, especially those in Mathematics, tend to have the same objectives as the aforementioned organisations. This makes it difficult to teach Financial Education in a critical and reflective way, going beyond individualism. This makes it even more necessary to develop research in this educational context, seeking to build Financial Education in a collaborative way, led by us teachers, for application in the classroom.

5 Final considerations

Discussions about Financial Education have developed over the years, bringing different proposals and approaches. The historical trajectory presented in this text is intended to contribute to a broader understanding of how the subject has developed over time. It begins with the creation of the OECD, an organisation that promoted international coverage of the subject, precisely because of the studies carried out and, consequently, the creation of the *Financial Education Project*, in 2003, until the institution of the New ENEF, in 2020, in Brazil.

From the measures and actions promoted by the OECD and ENEF, we can see a marketbased view of Financial Education, which aims to enable individuals, in general, to have access to the tools they need to become responsible for all the financial situations that affect them: health care, pensions, security, etc. This is because they focus on economic aspects, proposing a look at the subject in order to educate for money, without much reflection or criticism of issues such as social inequality, unemployment, educational deficiencies, among many other aspects that go beyond the individual.

Over the years and with the maturing of discussions in the educational sphere and, in particular, in the context of Mathematics Education, our area of interest, researchers have fought for and defended a Financial Education that questions the neoliberal system and reflects on possible social transformations. From this perspective, Financial Education can be understood as a set of knowledge that contributes to a broad understanding of society, for example, the reason for keeping people in extreme poverty; the environmental impacts of excessive waste production; the issue of hunger and lack of water for various groups; as well as the fact that there are still people in situations analogous to slavery today; among many other necessary issues.



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References

BARBOSA, Gabriela Santos; ARAÚJO, Jerlan Manaia; PAES, Ana Marlice Manhães. Modelagem Matemática e Educação Financeira: uma integração possível no desenvolvimento da criticidade dos estudantes. *Educação Matemática Debate*, v. 4, n. 10, p. 1-25, 2020.

BARONI, Ana Karina Cancian. *Educação Financeira no contexto da Educação Matemática:* possibilidades para a formação inicial do professor. 2021. 254f. Tese (Doutorado em Educação Matemática). Universidade Estadual Paulista. Rio Claro.

BAUMANN, Renato. O que esperar da membresia na OCDE? *Revista Tempo do Mundo*, n. 25, p. 29-50, 2021.

BRASIL. Decreto n. 10.939, de 9 de junho de 2020. Institui a nova Estratégia Nacional de Educação Financeira — ENEF e o Fórum Brasileiro de Educação Financeira — FBEF. Brasília: Diário Oficial da União, 9 jun. 2020.

BRASIL. Decreto n. 7.397, de 22 de dezembro de 2010. Institui a Estratégia Nacional de Educação Financeira — ENEF, dispõe sobre a sua gestão e dá outras providências. Brasília: Diário Oficial da União, 22 dez. 2010.

BRASIL. Ministério da Educação. Associação de Educação Financeira do Brasil. *Relatório Anual AEF Brasil*. Brasília: MEC/CAEF, 2018.

BRASIL. Ministério da Educação. Estratégia Nacional de Educação Financeira. *Plano Diretor da ENEF:* Anexos. Brasília: MEC/ENEF, 2011.

BRASIL. Ministério da Educação. Secretaria de Educação Básica. *Base Nacional Comum Curricular:* Educação Infantil e Ensino Fundamental. Brasília: MEC/SEB, 2017.

BRASIL. Ministério da Educação. Secretaria de Educação Básica. *Temas contemporâneos transversais na BNCC:* contexto histórico e pressupostos pedagógicos. Brasília: MEC/SEB, 2019.

GODINHO, Rodrigo de Oliveira. *A OCDE em rota de adaptação ao cenário internacional:* Perspectivas para o relacionamento do Brasil com a Organização. Brasília: FUNAG, 2018.

IBGE — Instituto Brasileiro de Geografia e Estatística. *Censo Brasileiro de 2023*. Rio de Janeiro: IBGE, 2023.

LAMEIRA, Valdir de Jesus. Uma revisão sobre a Economia Brasileira e o Mercado Financeiro



após o Plano Real: as mudanças e a evolução do mercado de capitais entre 1995 e 2002. *Revista Contabilidade & Finanças*, n. 35, p. 96-110, maio/ago. 2004.

MARTINS, Ana Quitéria Nunes. A *formação da Estratégia Nacional de Educação Financeira do governo brasileiro*. 2013. 98f. Dissertação (Mestrado em Saúde Pública). Escola Nacional de Saúde Pública Sergio Arouca. Rio de Janeiro.

MAZZI, Lucas Carato; BARONI, Ana Karina Cancian. Diálogos possíveis entre Educação Financeira e Educação Matemática Crítica. In: BARONI, Ana Karina Cancian; HARTMANN, Andrei Luís Berres; CARVALHO, Cláudia Cristina Soares. *Uma abordagem crítica da Educação Financeira na formação do professor de Matemática*. Curitiba: Appris, 2021, p. 37-53.

MAZZI, Lucas Carato; DOMINGUES, Nilton Silveira. Educação Financeira na Educação Básica: um foco nas percepções dos estudantes. *Em Teia*, v. 12, n. 2, p. 2-24, 2021.

MAZZI, Lucas Carato; OLIVEIRA, Vanessa; LIMA, Adriana de Souza. O que pode Educação Financeira na escola? In: MAZZI, Lucas Carato; LIMA, Adriana de Souza; OLIVEIRA, Vanessa. *Educação Financeira na Escola:* teorias e práticas para a Educação Básica. No prelo.

MELO, Danilo Pontual; PESSOA, Cristiane Azevêdo dos Santos. Educação Financeira no Ensino Médio: possibilidades. *ReBECEM*, v. 3, n. 2, p. 488-513, ago. 2019.

MELO, Danilo Pontual; VIEIRA, Glauciane da Silva; AZEVEDO, Suedy Santos; PESSOA, Cristiane Azevêdo dos Santos. Diálogos entre a Educação Financeira Escolar e as diferentes áreas do conhecimento na BNCC do Ensino Fundamental. *Em Teia*, v. 12, n. 2, p. 1-27, 2021.

MENECUCCI, Fabio Alves. *Neoliberalismo, Consumismo e Educação Financeira:* reflexões de cidadãos-professores-estudantes de Pós-Graduação em Educação Matemática. 2022. 175f. Dissertação (Mestrado em Educação Matemática). Universidade Estadual Paulista. Rio Claro.

MORAES, Flávia Aparecida; FREITAS, Carlos Cesar Garcia. Curso de Educação Financeira Escolar: produto educacional para a formação de professores. *Em Teia*, v. 12, n. 2, p. 2-28, 2021.

MUNDY, Shaun. Financial Education Programmes in school: Analysis of selected current programmes and literaure draft. Recommendations for best practices. *OCDE journal: General papers*, v. 3, p. 3-66, 2008.

MUNHOZ, Sidney. Guerra Fria: História e historiografia. Curitiba: Appris, 2020.

OCDE — Organização Para a Cooperação e Desenvolvimento Econômico. *Advancing National Strategies for Financial Education*. Paris: OECD Publishing, 2019.

OCDE — Organização Para a Cooperação e Desenvolvimento Econômico. *Better policies for better lives*. Paris: OECD Publishing, 2023

OCDE — Organização Para a Cooperação e Desenvolvimento Econômico. *Improving Financial Literacy:* analysis of issues and policies. Paris: OECD Publishing, 2005a.

OCDE — Organização Para a Cooperação e Desenvolvimento Econômico. Recommendation



on Principles and Good Practices for Financial Education and Awareness. *Directorate for Financial and Enterprise Affairs*. Paris: OECD Publishing, 2005b.

OECD — Organization for Economic Cooperation and Development. PISA 2012. *Financial Literacy Assessment Framework*. Paris: OECD Publishing, 2012.

PESSOA, Cristiane Azevêdo dos Santos; JÚNIOR, Ivail Muniz; KISTEMANN JR., Marco Aurélio. Cenários sobre Educação Financeira Escolar: entrelaçamentos entre a pesquisa, o currículo e a sala de aula de Matemática. *Em Teia*, v. 9, n. 1, p. 1-28, 2018.

SARAIVA, Karla Schuck. Os sujeitos endividados e a Educação Financeira. *Educar em Revista*, v. 33, n. 66, p. 157-173, out./dez. 2017.

SAVOIA, José Roberto Ferreira; SAITO, André Taue; SANTANA, Flávia de Angelis. Paradigmas da Educação Financeira no Brasil. *Revista de Administração Pública*, v. 41, n. 6, p. 1121-1141, 2007.

SILVA, Amarildo Melchiades; KISTEMANN JR., Marco Aurélio; VITAL, Márcio Carlos. Um estudo sobre a inserção da Educação Financeira como tema curricular nas escolas públicas brasileiras. In: *Anais do Seminário de Investigação em Educação Matemática*. Braga: 2014, p. 35-46.

SILVA, Amarildo Melchiades; POWELL, Arthur Belford. Educação Financeira na Escola: A perspectiva da Organização para Cooperação e Desenvolvimento Econômico. *Boletim GEPEM*, n. 66, p. 3-19, 2014.

SILVA, Amarildo Melchiades; POWELL, Arthur Belford. Um programa de Educação Financeira para a Matemática Escolar da Educação Básica. In: *Anais do XI Encontro Nacional de Educação Matemática*. Curitiba, 2013, p. 1-17.

SILVA, Arlam Dielcio Pontes; PESSOA, Cristiane Azevêdo dos Santos; CARVALHO, Liliane Maria Teixeira Lima. Educação Financeira em aulas de Matemática: o que eu vejo é o sistema monetário!? In: *Anais do XIII Encontro Nacional de Educação Matemática*. Cuiabá, 2019, p. 1-14.

SOUZA, Andréa Stambassi. *Design e desenvolvimento de um curso de formação continuada para professores em Educação Financeira*. 2015. 196f. Dissertação (Mestrado em Educação Matemática). Universidade Federal de Juiz de Fora. Juiz de Fora.

TEIXEIRA, Wesley Carminati; KISTEMANN JR., Marco Aurélio. Uma investigação sobre a inserção da Educação Financeira em um curso de serviço de Matemática Financeira para graduandos de um curso de Administração. *Educação Matemática Pesquisa*, v. 19, n. 1, p. 223-249, jan./abr. 2017.

VIEIRA, Glauciane Silva; PESSOA, Cristiane Azevêdo dos Santos. Educação Financeira pelo mundo: como se organizam as estratégias nacionais? *Educação Matemática Pesquisa*, v. 22, n. 2, p. 658-688, maio/ago. 2020.

VILLANI, Marialuisa; OLIVEIRA, Dalila Andrade. Avaliação Nacional e Internacional no Brasil: os vínculos entre o PISA e o IDEB. *Educação & Realidade*, v. 43, n. 4, p. 1343-1362, out./dez. 2018.