**Article**

Financing education in thesis and dissertations in Brazilian Northeast: a review study

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Abstract

The article aims to analyse the characteristics and trends of productions about financing education in thesis and dissertations produced in the programs of post-graduation in Education of Brazilian Northeast federal universities from 2002 to 2017. The work is part of the set of review studies that map and analyse the academic production. With a quanti-qualitative approach, the research results from documental and bibliographic studies which corpus were the thesis and dissertations collected, exclusively, in the Institutional Repositories of the post-graduation programs in the nine federal universities education of the Brazilian Northeast, localized in Maranhão (UFMA), Piauí (UFPI), Ceará (UFC), Rio Grande do Norte (UFRN), Paraíba (UFPB), Pernambuco (UFPE), Alagoas (UFAL), Sergipe (UFS) and Bahia (UFBA). The analysis of the works made it possible to verify the prevalence of dissertations, the intensification of production on the theme, especially from 2010 onwards, and a preference for themes that bring Fundef / Fundeb as a background. In the studies set about financing education, stood out three institutions (UFPI, UFRN and UFPE) that together accounted for more than half of the researches analyzed, revealing the consolidation of the theme and of advisors in the graduate programs of these institutions. The study also concluded that there is growing interest in the thematic focus of the article and that there is a need for further studies on the financing of specific stages or modalities of basic and higher education, as well as review studies that contribute to expanding knowledge about policies that materially assure the educational offer in Northeast Brazil.

Keywords: Education financing, Academic production in Brazilian Northeast, Review studies, Graduate programs in Education.

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1. Introduction

The path taken by education financing policies is marked by advances and setbacks, arising from a socio-historical context that implies different conceptions and interests that shape the educational offer. As a social good and as an inalienable human right, access to education "requires goals, purposes, contains principles, objectives, and strategies that depend on a financing system" (CURY, 2018, p. 2) that must be guaranteed by State policies.

In Brazil, according to the 1988 Federal Constitution (CF), it is the duty of the State to guarantee resources that ensure the right to education, the preparation for the exercise of citizenship and the qualification for work to the entire Brazilian population. The Constitution also establishes that the Union must invest at least 18% of the net tax revenue and that the Federal District, states and municipalities must invest no less than 25% of these resources in the maintenance and development of education (BRASIL, 1988).

However, the conditions of educational supply in the country denounce the insufficient resources for adequate care in most Brazilian public schools (ALVES; PINTO, 2011; GATTI, 2009; DAVIES, 2006; 2010; SHIROMA; MORAES; EVANGELISTA, 2004). This situation is aggravated by the advancement of proposals of an increasingly less participatory State, through the reduction of public resources for social policies, contrary to the rights proclaimed by the 1988 Federal Constitution.

This context of discussion around the right to education and its financing, as well as the changes in policies that ensure the material conditions of maintenance of Brazilian schools, has attracted the interest of researchers to the theme in recent decades. Thus, it is observed the expansion of the theme of education financing in research conducted in graduate programs and in publications in scientific journals (CRUZ; JACOMINI, 2017; SANTOS, 2016; DAVIES, 2014).

This article aims to analyze the production on financing of education in theses and dissertations produced in the Postgraduate Programs in Education (PPGEs) of federal universities in the Brazilian Northeast, seeking to understand the distribution of production, the themes addressed, the form of production and the main conclusions. With these characteristics, this work is part of a set of review studies that map and analyze the academic production on education financing, pointing out what was produced on the subject between 2002 and 2017 in the Brazilian Northeast, providing the opportunity to understand the growth and strengthening of this field.

In the last two decades, review studies have grown and pointed out characteristics and trends of academic production on education, contributing to its strengthening and enabling researchers to find, among its results, new research objects. In this group are included researches called State of the Art, State of Knowledge, Bibliographic Survey, Literature Review, Metasearch, among others (ROMANOWSKI, 2002; SOARES; MACIEL, 2000; SANTOS, 2016; DAVIES, 2014; MAINARDES, 2018).

Review studies have the challenge of mapping and discussing the academic production in different fields of knowledge, seeking to "answer which aspects and dimensions have been highlighted and privileged in different times and places" and under which conditions the theses, dissertations and other

publications analyzed are produced. These are studies that seek to respond to the feeling of "not knowing about the totality" of what is produced and disseminated, thus generating the need for research in a given area of knowledge that demonstrates the growth "both quantitative and qualitative" (FERREIRA, 2002, p. 258-259) and that mobilizes new research to overcome the gaps detected.

These studies make it possible to examine the contributions of research regarding the definition and constitution of the area and the field of knowledge and research convergences, "pointing out the needs for improvement of the theoretical and methodological status" (VOSGERAU; ROMANOWSKI, 2014, p. 167). They even enable a critical analysis, indicating recurrences, trends, and gaps left, and may "present a new direction, configuration, and directions" (VOSGERAU; ROMANOWSKI, 2014, p. 167). In the area of education, review studies bring important elements for the understanding of the research carried out with regard to trends, characteristics, weaknesses and epistemological obstacles, favoring the critical analysis on the production of accumulated knowledge.

In the literature review, it was possible to identify that studies that investigate academic production, that is, research on research, may have different nomenclatures or levels of approach. Extensively, review studies are considered "all those that take as research object the scientific/academic production of a given area, subarea or field of knowledge, taking into account the specificity of the thematic and temporal cut-off" (JACOMINI; PENNA; BELLO, 2019, p. 5).

In the present study, the time frame chosen (2002 to 2017) resulted from the survey conducted in online databases of the federal universities focused on the research, identifying the strengthening of the theme in the institutions analyzed, starting in 2002, including the last four years of the Fund for Maintenance and Development of Basic Education and the Appreciation of Teaching (Fundef), implemented from 1996 to 2006, and most of the Fund for Maintenance and Development of Basic Education and Appreciation of Education Professionals (Fundeb), in force from 2007 to 2020. These funds have fostered, in a significant way, research on the financing of education.

The research presented here arises from a documental and bibliographic study whose corpus were the theses and dissertations collected, exclusively, in the Institutional Repositories (IR) of the PPGEs of the nine federal universities in the Brazilian Northeast, located in Maranhão (UFMA), Piauí (UFPI), Ceará (UFC), Rio Grande do Norte (UFRN), Paraíba (UFPB), Pernambuco (UFPE), Alagoas (UFAL), Sergipe (UFS) and Bahia (UFBA).

The approach of this study is quanti-qualitative. When one thinks of quantitative and qualitative studies, it is common to think that one option excludes the other, creating a false dichotomy. However, this supposed dichotomy between quantitative research versus qualitative research does not exist, since it is understood that facts and values are integral parts of the research process and are intrinsically imbricated, offering richness of information, depth and greater interpretative reliability in the study (SANTOS FILHO; GAMBOA, 2007; MINAYO, 2009; JACOMINI; CRUZ; MENDES, 2019), regardless of the theoretical-methodological and epistemological option of the researcher.

The first step of the study consisted in surveying all the abstracts of theses and dissertations produced on the subject of Education Financing, in the period focused on the research, in the PPGEs of the nine institutions mentioned above. The survey was carried out through online search engines by consulting, exclusively, the digital collections of university libraries.³

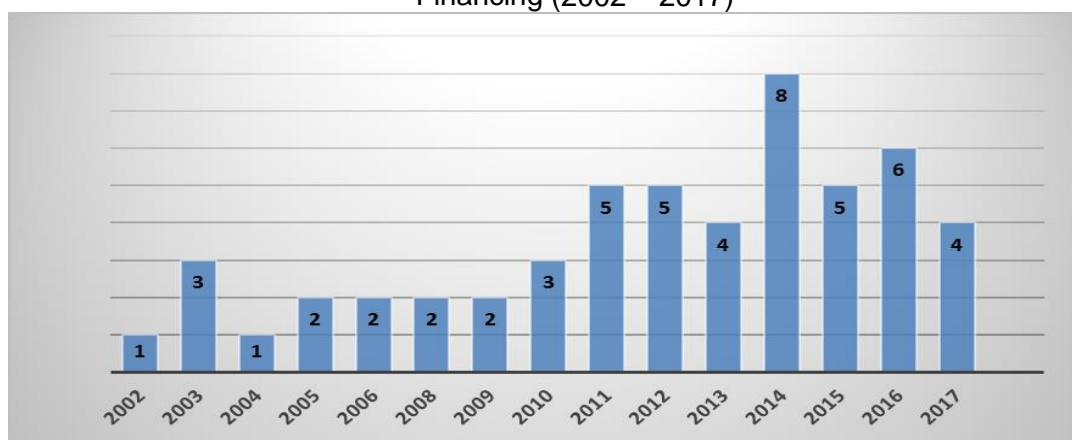
The descriptors used for the search were: "education financing", "social control of education financing", "public spending and education", "Fundef"⁴, "Fundeb"⁵, "public resources", "social control of Fundeb", "Fundef monitoring council", "financing policies for basic and higher education", and "career plans and teacher compensation".

From this initial process, 53 productions were found and systematized in a spreadsheet, whose results, presented below, allowed the construction of a picture of the studies on education financing in federal universities in the Brazilian Northeast.

2. What the theses and dissertations say about the theme of educational financing

The nine Graduate Programs in Education of the northeastern federal universities produced 53 theses and dissertations on Education Financing, in the period from 2002 to 2017, whose annual distribution can be seen in Graph 1, below.

Graphic 1 - Number of papers by year in the IFES in the Northeast about Education Financing (2002 – 2017)



Source: Prepared by the authors based on information available in the Institutional Repositories of the PPGEs of UFMA, UFPI, UFC, UFRN, UFPB, UFPE, UFAL, UFS and UFBA.

³ There are other sources of access to the collection produced in PPGEs: Digital Library of Theses and Dissertations of the Brazilian Institute of Information in Science and Technology (IBICT); digital platform Dados.gov.br; Catalog of Theses and Dissertations of the Coordination for the Improvement of Higher Education Personnel (Capes); publications referenced with bibliographic surveys, such as the one done by Davies (2014); other digital search resources (google academic, public domain, digger, lattes, etc.). A more exhaustive survey would require mapping the productions in all the aforementioned sources, which would possibly result in a greater number of theses and dissertations, in addition to those identified in the repositories of the researched institutions.

⁴ Fund for the Maintenance and Development of Elementary Education and Valuing Teaching, education funding policy instituted in 1996.

⁵ Basic Education Development Maintenance Fund and Education Professionals Valuation Fund, education financing policy instituted in 2007.

Graphic 1 reveals the growth of production on education financing over the years. In the period between 2002 and 2009, the number of studies that addressed financing of education was small and with few changes, representing an average of 1.9 studies per year. However, from 2010 on, there was a considerable growth in relation to previous years, with an average of 5 studies per year. The production of the first eight years totaled 13 papers (2002 to 2009) and the following eight years practically quadrupled, reaching 40 productions (2010 to 2017), representing a growth of 308% between the two periods.

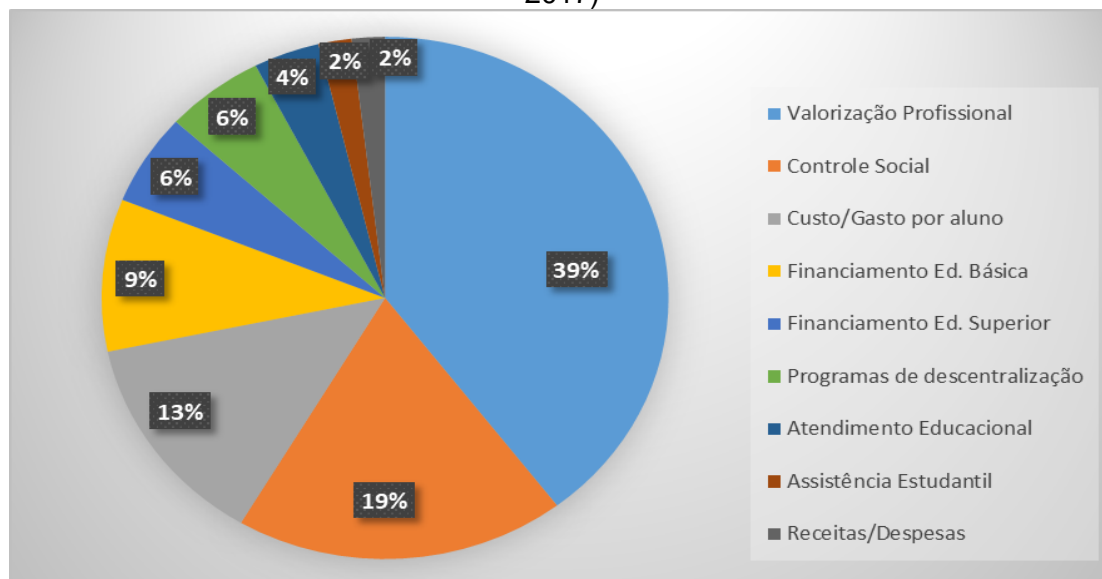
Regarding the types of papers, it was possible to identify the predominance of master's dissertations (35 papers), which concentrated 66% of the academic production in the period. Only 34% corresponded to doctoral theses (18 studies). The distribution of the 53 productions among the PPGEds of federal universities reveals a concentration of research on this theme at UFPI and UFRN, with 14 and nine papers, respectively. Next comes UFPE with eight studies; UFBA, UFC and UFPB, with six studies each; UFMA, with two works; and, finally, UFAL and UFS, with one study each.

The largest number of research studies was concentrated in only two institutions, the Federal University of Piauí and the Federal University of Rio Grande do Norte, which together accounted for 23 papers, representing 43% of the total number of studies on the topic in question between 2002 and 2017. The remaining papers are scattered among the seven remaining institutions. The analysis of the determinants of this distribution, considering the profile of the advisors and the projects developed is still to be done in the area.

In the institutions with the highest number of works per supervisor, Professor Luís Carlos Sales (UFPI) stands out, having supervised 10 out of the 14 works of this institution, in the "Education, Social Movements and Public Policies" line; and Professor Magna França (UFRN), with nine orientations, concentrated in the "Education, Politics and Educational Praxis" line of research, meaning the totality of the institution's works. In the sequence, the professors Luiz de Sousa Júnior (UFPB) and Robert Evan Verhine (UFBA) stand out, both with three orientations, followed by the professors Antônio José Gomes (UFPI), Márcia Ângela da Silva Aguiar (UFPE), Janete Maria Lins de Azevedo (UFPE), Maria José Pires Barros Cardozo (UFMA), José Wellington Marinho de Aragão (UFBA), each with two research orientations on education financing, from 2002 to 2017. The remaining professors, 18 in total, guided one paper each. These data show that references of orientation on the theme are still being consolidated in most of the institutions analyzed.

Regarding the themes investigated, Graphic 2 presents the systematization of the subjects addressed by the papers that comprised the research universe. Grouped by specific themes, based on the keywords and on the reading of the abstracts of the 53 papers on education financing, it was possible to form a broader view of the production in the area.

Graphic 2 - Grouping of the main themes addressed in the theses and dissertations on Education Financing (2002 – 2017)



Source: Prepared by the authors based on the abstracts of theses and dissertations produced in the Northeastern IFES from 2002 to 2017 on Education Financing.

Graphic 2 shows that, considering the categorization of the themes, the most present theme is related to professional development policies, with 21 studies, representing 39% of the total studies analyzed. In general, these studies have as a background the valuing of teachers as provided for in Fundef/Fundeb. The studies approach the following aspects: floor of the category, working conditions, training, career, and remuneration of the education professionals. Among these categories, 12 studied specifically the implications of the fund policy on the teachers' salaries, considering its formative dimensions and highlighting the impact and the impasses in the policies of valorization of the teaching staff. The others (nine) discussed more general issues that focused, among other topics, on the law of the National Professional Salary Floor (PSPN), the Teaching Status and the Career Plan, contemplating the union action in the struggle for the implementation of the Floor. Only one paper differs in its approach by focusing on the meritocratic remuneration policy.

In studies on the valorization of teachers, as well as in other aspects of research on education financing, in the corpus of this investigation, the fund policy is the main scenario, since the years from 2002 to 2017 comprise the last four years of Fundef and the effectiveness of Fundeb.

As explained by Pinto (2000), Davies (2006), Cruz and Jacomini (2017), the Fundef originated in the context of the changes approved by the Constitutional Amendment No. 14/96, regulated by Law No. 9.424/96. Basically, this Fund, of an accounting nature and statewide, sub-linked part of the education resources of states and municipalities to Primary Education, adopting, as a redistribution criterion, between the state and its municipalities, the number of enrollments. The Union would complement the resources when the *per capita* in each state was lower than the value per student-year. This value was defined by the federal government itself and should be based on a minimum standard of quality, an aspect that was not respected during the

existence of Fundef, as well as the calculation formula provided by law. Of the total fund, each federative entity should use, at least, 60% for the remuneration of the teaching professionals in effective exercise, aiming their valorization.

Fundeb, according to Davies (2006) and Pinto (2007), was approved by EC nº 53/2006 and regulated by Law 11.494/2007, and succeeded Fundef, being in force until 2020. It brought some important changes: increase of sub-linked resources - taxes and percentages -, inclusion of all stages and modalities of basic education, except distance education; increase of the Union's participation in the fund complementation (10%); definition of a deadline for the implementation of the National Professional Wage Floor for teachers, among other measures.

In the conclusions of the 21 studies on valorization, we highlight the following: the funds were not able to promote the valorization of teachers; the law that ensures the PSPN was not fulfilled; Fundeb presented advances in relation to Fundef. These results corroborate the studies of Davies (2006), Pinto (2007) and Jacomini, Minhoto and Camargo (2012), who report that, although they have ensured a policy of salary improvement for teachers, the funds did not establish effective regulations that would provide the referred appreciation of education professionals, especially in the period of the Fundef.

In addition to the 21 studies that dealt with the valuing of education professionals, 10 studies were grouped under social control, representing 19% of the total analyzed. The Fundef and Fundeb played an important role in the interest for this theme, because they established the Fund's Councils for Monitoring and Social Control (CACS), aiming to contribute to the fulfillment of the purposes of educational financing and to improve the performance of the state bodies that oversee educational resources. In relation to the results, the studies showed that the councils were instituted, which is an advance for society. However, they are dependent on public power for their functioning; vices persist in the election process of their members, which reinforces the state tutelage; it is evident the precariousness of the councilors' training for the exercise of their role, which causes limitations in their function of social control. This reality, verified in theses and dissertations, corroborates Davies' (2010, p. 59) assertion that it is not enough to have "representatives of civil society in councils", because, for them to be effective, they need to be better qualified to propose changes that, significantly, point to the overcoming of social inequalities.

In the cost/output per student theme, seven studies were grouped together, four of which analyzed the cost per student/year in the context of the policy of funds for financing education (Fundef/Fundeb). Among these, one study focused on the analytical matrix of the Initial Cost-Pupil-Quality (CAQi) of early childhood education, with a focus on daycare centers. The other three that make up this theme referred, in general, to the spending per student in basic and higher education, seeking to assess the correspondence between the levels of spending on public education and the quantitative equivalence of enrollment in the federal, state and municipal spheres.

As a result, the studies found that schools located in rural areas have a higher cost-pupil/year than schools in urban areas, due to the number of enrollments in each area. Insufficient resources, especially for early childhood education, was another result pointed out in the studies. It was found that the principle of equal opportunity, as the main function of education and fiscal

federalism, is far from the Brazilian educational reality, causing the progressive decrease in spending per student, which leads public education to pauperization.

In the theme financing of basic education, five works were grouped, two of them focusing on early childhood education, two on elementary school and one on high school. The studies, in general, analyze to what extent the Fundeb is a policy capable of financing, in an adequate way and with quality, the expansion of educational services. The results report an expansion in the supply and number of early childhood education institutions, as well as the consolidation of a more democratic and participatory management. In the results of the study that deals with secondary education, the fact that the state government hires temporary professionals instead of permanent ones was highlighted, a measure that reduces personnel expenses, makes teachers' work more precarious, and weakens union organizations. The conclusions of those who focused on primary education pointed out that the contribution of resources is not a preponderant factor for the quality of education and that the results achieved in large-scale examinations, such as the Basic Education Development Index (IDEB), are much more linked to management practices. These studies corroborate analyses made by international organizations, such as the World Bank, and move away from more critical readings on educational policies, a perspective clearly marked in studies on higher education.

The three studies that contemplated the financing of higher education analyzed the expansion policies of public and private institutions. One of the works dealt with the influence of capital in the mercantilization of higher education in the light of Marxist criticism and under the influences of international organizations, such as the World Bank and UNESCO; another, in addition to the discussion on the guidelines of international organizations for higher education, focused especially on the programs University for All (ProUni), Higher Education Student Financing Fund (Fies) and Program to Support Restructuring and Expansion Plans of Federal Universities (Reuni). The latter, also focusing on expansion and funding policies, aimed to establish a picture of public higher education resulting from these policies, considering the international and national contexts.

The analyses of the respective works pointed to a significant process of expansion and mercantilization of the supply of higher education, which meets the desires of neoliberal policies guided, among others, by international agencies. They also showed that the expansion did not represent a broad democratization of access, since it did not offer conditions for permanence, a fact proven by the low number of graduates in the institutions.

In the work on decentralization programs, three studies on different federal actions were grouped together: the National School Transportation Support Program (PNATE), the National School Meals Program (PNAE) and the National Rural Education Program (Pronacampo). The findings of the research showed an incipient participation of the Union in the PNATE and the restriction of the supply of rural school transportation; the split in the relationship between family farmers, municipalities and agents linked to the PNAE; and limits in relation to the needs of actions for the training of field workers in the scope of Pronacampo.

Of the 53 studies analyzed in this article, two focused on educational services in elementary education. One of them focused on the supply in the

state education network, with emphasis on the ruptures and permanence caused by the fund, concluding that there were positive results for the educational reality, but not as expected by the community served. The other work analyzed the performance of municipal management after its implementation, concluding that there is structural fragility of the systems due to administrative discontinuities that compromise education, affect educational management and the effectiveness of the Fundef policy in the municipalities.

Student Aid was addressed in only one of the papers, focusing on the so-called School Fund, aiming to clarify this mechanism of financing education for the impoverished classes. The study concluded that the School Fund had an "appreciable importance when delivering its task of helping poor children" in public educational establishments, having an impact on all branches of society (VASCONCELOS, 2013).

Revenue/Expenditure was a theme addressed only once, focusing on the financing of education in the public state network in the context of Fundef/Fundeb, with reference to federalism and the collaboration regime, demonstrating the limiting elements to reach equity in the distribution of resources and, therefore, the supply of quality in the public network. The results inform that the policy of accounting funds has not been an instrument of equalization of spending by educational stage, being necessary to increase the financial participation of the Union in municipalities with less capacity to collect its own revenue. This conclusion corroborates studies that show the need for a fairer tax system and a greater participation of the Union in financing basic education in order to ensure a standard of quality in public education for the entire Brazilian population (EDINIR; BASSI, 2009; PINTO, 2012).

The 53 studies as a whole revealed an effort to produce knowledge on various aspects of educational financing, with a convergent understanding of the need for greater contributions of resources. Considering that the diversity of research contributes to the strengthening of the field under study, we tried to understand how these studies were developed.

The analysis of the methodological procedures had as a source the information expressed in the abstracts, because this type of text should include information essential to the understanding of the reader, and is probably the first part of the monographs that interested readers devote themselves to reading (JACOMINI; CRUZ; MENDES, 2019). The Brazilian Association of Technical Standards (ABNT) expresses, in NBR6028 (2003), the rules for summaries, which must present, concisely, the relevant points of a document. In the case of theses and dissertations, the abstract has an informative character and must inform "the reader of the purposes, methodology, results and conclusions" (NBR6028, 2003, p. 1), even making it unnecessary to read the original in full. Jacomini, Cruz and Mendes (2019) add the need to cite the research problem and the theoretical framework, guiding the reader about the reason for the research and the perspective adopted in the study.

Regarding the theoretical framework adopted, among the 53 abstracts analyzed, 37 did not indicate the theoretical basis of the study. By theoretical basis is understood "the set of principles, definitions, concepts and categories that articulated among themselves form a coherent explanatory system" and scientific work "is its basis of support and rigor, guiding the forms of analysis of the object" (MINAYO, 2009, p. 44).

Mainardes and Tello (2016, p. 7, our emphasis) note "that there are different levels of analysis (more developed, less developed, etc.) and that the "theoretical framework" is an essential element for the construction of the analytical process" more consistent. However, it is pondered that the fact that the theoretical base of the text is not specified in the abstract does not mean that the author has not made explicit in the thesis or dissertation the referential adopted. Thus, although the theoretical reference is one of the fundamental information for the qualification of the abstracts, its omission informs the need to better elaborate them. Moreover, "the lack of theoretical consistency, positioning and epistemological perspective [...] can weaken the argumentative construction and data analysis" (SILVA; JACOMINI, 2016, p. 135).

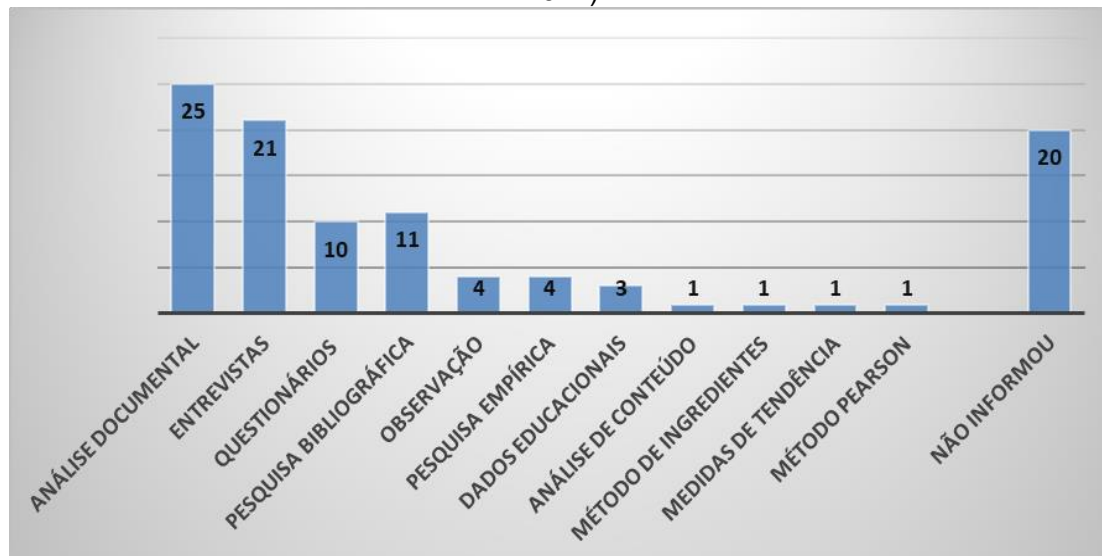
According to Mainardes and Tello (2016), the epistemological approach to educational policies has three analytical elements: the epistemological perspective, which is the theoretical perspective that the researcher uses in his research process (Marxism, structuralism, pluralism); the epistemological positioning, which is the movement made by the researcher from one end to another within a given theoretical perspective as a political position (critical, reproductive, liberal, among others); and the epistemological approach, which is the way in which the research is methodologically constructed from the point of view and epistemological positioning of the researcher. It follows, then, that the levels of approach and abstraction are related to the way research is constructed, which involves the epistemological position and methodological approach taken by the researcher, which influence all stages of the study.

Starting, therefore, from the understanding that the choice of the theoretical framework necessarily involves the definition of a methodological path integrated to the epistemological assumptions of the research, the data collection procedures of the works that make up the analyzed universe were listed. For Silva and Jacomini (2016, p. 141), it is "important to know the main data collection procedures, since they inform how the researchers conducted the research". In the universe investigated (53), 62% indicated the data collection procedure in the abstracts, information standardized by ABNT for this type of text, in order to allow the reader a notion of the scientific path developed in the investigation.

In the grouping of methodological procedures (Graphic 3), the terms used by the authors of the papers under analysis were considered, and the number of times each procedure appears in a column of the graph is a result of the times that denomination appears. The same study may include different procedures, data collection techniques or methodological tools, that is why, although there are 53 papers analyzed, with only 33 having indicated the procedures, a significantly higher number was cited.

Graphic 3 explains that in the set of abstracts analyzed, methodological procedures were cited 82 times, and 20 abstracts (38% of the total) did not inform any procedure, and were therefore in disagreement with ABNT norms. Documentary analysis" (cited 25 times) was the most used technique, representing 24.5% of the total procedures, considering its use combined with other resources within the studies in question. Other techniques named by the authors as "documental analysis", "documental study", "statute analysis" and "archives" were included as "documental analysis", because they fit the profile of the respective methodological procedure.

Graphic 3 – Number of times each methodological procedure was cited in the Northeast HEI's abstracts on Education Financing (2000-2017)



Source: Prepared by the authors based on the abstracts of theses and dissertations produced in the Northeastern IFES from 2002 to 2017 on Education Financing.

The second most cited data collection technique was the interview (21 times), which corresponds to 20.5% of the total, in whose framework were also included the denominations: semi-structured interview, structured interview, open interview and testimonials. It is interesting to note that a significant part of the abstracts under analysis shows some confusion when restricting "the research method to techniques or procedures of data collection", as verified in the research of Silva and Jacomini (2016, p. 150).

In the analysis, besides the diversity in the naming of methodological procedures, data collection techniques and instruments indicated in the abstracts, the significant presence of questionnaires and bibliographical research drew attention, and the fact that many ignored that "methodology includes theoretical conceptions, research techniques and the creativity of the researcher", as Gonsalves (2011, p. 64) warns. This fact demonstrates the need for greater consolidation of research in the field of education financing and better presentation of the abstracts of theses and dissertations.

3. Final considerations

Financing policies are fundamental to ensure the human right to education. Despite the existence of constitutional guarantees and the linking of resources, the conditions of educational supply in Brazil denounce its insufficiency. This problem has attracted the interest of researchers, especially after the institution of funding policies, resulting in the expansion of the theme of educational financing in research carried out in graduate programs.

The present article, which is characterized as a review study, aimed to analyze the productions on education financing in theses and dissertations produced in the Postgraduate Programs in Education (PPGEs) of federal universities in the Northeast, from 2002 to 2017, seeking to understand the distribution of production, the themes addressed, the way the studies were

constructed, and the main conclusions.

The analysis of the works allowed us to verify the prevalence of dissertations (66%) and the intensification of production on the subject, especially from 2010. In the set of theses and dissertations on Education Funding, three institutions (UFPI, UFRN and UFPE) stood out, together accounting for 58% of the total analyzed (53), revealing the consolidation of the theme and of advisors in the PPGEs of these Federal Institutions of Higher Education.

Regarding the most addressed themes in the 16 years analyzed, it was found that most of them brought the Fundef/Fundeb as the most significant background. This occurred due to the impact of these policies on the organization of basic education financing and the fact that the studies were developed in the context of both funds, from 2002 to 2017. The three themes most addressed in the studies were valuing education professionals; social control over education resources; cost/performance per student and financing of basic education.

The valuing of basic education professionals (39%) was the most investigated theme in the set of 53 works analyzed, addressing issues such as remuneration, training and working conditions. In general, the studies recognize that Fundeb represented advances in relation to Fundef, but point out that the funds, despite having contributed to improving the salary conditions, were not able to promote the appreciation of teachers and ensure compliance with the Law of the National Professional Salary Floor.

In the wake of the fund policies, Social Control, which concentrated 19% of the total number of studies, was the second most studied theme. The results point to the need for better training of councilors to understand and analyze the rendering of accounts, aiming at the full fulfillment of their duties, the most effective way to ensure a qualified participation in the social control of education resources.

The studies on cost/ expenditure per student, the third most investigated theme, with four studies on student cost/year and three on expenditure, representing 13% of the total, are important, especially in the context of the approval of the new Fundeb, now of a permanent nature, by Constitutional Amendment 108/2020, which assumed the Pupil Quality Cost as a reference for achieving the quality standard provided for in the Federal Constitution. These studies indicate the need to increase the investment per student (BRASIL, 2020).

The financing of basic education was the theme that most permeated the studies, precisely because of the decisive role of Fundef/Fundeb in the increase of productions in the area. However, in order to better express the research themes, it was regrouped, thus presenting five works in this classification, two on early childhood education, two on elementary school and one on high school. This effort was important, because it explained the need for more studies on the financing of early childhood education and high school, as well as on professional education and youth and adult education (EJA), absent in the studies of the PPGEs of federal universities in the Northeast of Brazil in the focus period of this research. A similar situation occurred with the topic of higher education financing, restricted to only three in the total of productions on the analyzed programs, over the course of 16 years.

In all the works, although with less expressiveness, the following themes were still present: decentralization programs; educational assistance and revenues/expenses, student assistance. In general, considering the universe of 53 theses and dissertations analyzed, the results converge toward conclusions that education needs more resources for its financing, in coherence with studies that emphasize the need to increase the federal government's responsibility for financing public education, especially basic education, by increasing the contributions, which, in some way, has been consolidated with the new Fundeb, whose federal participation in the Union's complementation will be 23%, after its full implementation.

With regard to methodological procedures, the investigation reported that the main data collection techniques were interviews, questionnaires and observation which, together, account for a third of the total, followed by documental analysis and other methodological procedures (empirical research, bibliographic, content analysis, educational data, etc.) that contributed to the production of knowledge about education financing in the analyzed period.

The study led to the conclusion that there is a growing interest in education financing and that there is a need for more studies on the maintenance of specific stages or modalities of basic and higher education, as well as review studies that contribute to expanding knowledge about the policies that materially ensure the educational offer in the Northeast of Brazil.

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Authors' Contribution

Author 1: Conception of the theoretical and methodological design of the research, data analysis and article writing.

Author 2: Substantial contribution to data analysis, article writing and review.

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