State Reform and Vocational Education in the 1990s: alignment of CEFET-RN to neoliberal impositions

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Abstract
In the 1990s, the deepening of the neoliberal ideology in Brazil brought, as an effect, the Reform of the State and of Professional and Technological Education. In this article, we analyze the adherence of the curriculum of the Federal Center for Technological Education of Rio Grande do Norte (CEFET-RN) to the guidelines of the neoliberal project imposed by international organizations. The methodology consisted of documentary research having as sources the legislation produced at the time and the Curriculum Restructuring Project of CEFET-RN, created in 1999. It is concluded that the institution followed the determinations of the guidelines created by the Ministry of Education and the funding bodies of the Reform, such as the Professional Education Reform Program.

Keywords: Vocational Education. Neoliberalism. Curriculum.

1 Introduction
In the 1990s, Brazil, albeit with some delay, was the stage for the construction of an interpretation of the crisis and the Reform of the State that opened the way for the rise of the neoliberal societal model.

In the midst of a pedagogy of hegemony (Neves; Sant'Anna, 2005), especially in the field of Professional and Technological Education (PTE), the normative framework, derived from the liberalizing logic of the time, culminated in Bill No. 1.603/1996, Decree No. 2.208/1997, and Ordinances No. 646/1997 and No. 1005/1997, which, among other actions, dismembered Secondary Education from Technical Education.

In this context, the Fernando Henrique Cardoso administration, especially the second one, put its efforts into systematically pressuring the Federal Technical Schools (ETF) and the Federal Technological Education Centres (CEFET) to adhere to the materialized reforms. This included, among other things, adapting their curricula to the guidelines that came from the international organizations funding these changes.

Specifically at CEFET-RN, a Curriculum Restructuring Project was drawn up in 1999, linked to the PTE Reform and guided by the National Curriculum Guidelines for Professional Education at Technical Level (DCNEPNT) and the National Curriculum Referentials for Professional Education at Technical Level (RCNPEPN).

Our aim in this article is to analyze the impact of the neoliberal ideology on CEFET-RN's curricular structure, examining the institution's adherence to the changes brought about by this new scenario. To this end, we initially examined the documents already mentioned - the DCNEPNT and the RCNPEPN - produced and publicized in the context of the PTE Reform. We then went on to analyze CEFET-RN's Curriculum Restructuring Project in order to find out how the institution tried to adapt to these documents.

Given that the research is based on written sources of a legislative nature, we point out that these documents, like other types of records, are not innocuous. As Le Goff (2003, p. 535-536) points out, "the document is not something that remains in the past, it is the product of the society that made it according to the power relations that held power there". That is why, according to this author, "only the analysis of the document as a monument
allows the collective memory to recover it and the historian to use it scientifically, that is, with full knowledge of the facts" (2003, p. 536).

This article is divided into two sections in addition to this introduction. Firstly, we discuss state reform in the 1990s, with an emphasis on the work of Economy Minister Luiz Carlos Bresser-Pereira, one of the main formulators and executors of the so-called "managerial reform of the Brazilian state". Then, based on the documents drawn up for PTE during this Reform, we discuss the changes that took place at CEFET/RN, with a focus on the Curriculum Restructuring Project.

2 The liberal diagnosis of the "crisis of the state"

The issues of state "crisis" and "reform" became substantial points on the political agenda of Latin American countries in the mid-1980s. Affected by the so-called "external debt" crisis and the exhaustion of the developmentalist economic and industrial development pattern adopted since the 1930s, this discussion took hold in the intellectual and political debate.

In Brazil in particular, the economist and social scientist Luiz Carlos Bresser-Pereira had already developed his first formulations on the crisis of the state at the end of the 1980s. He was looking for explanations for the slowdown in capitalist accumulation in the central countries, which called into question the welfare state model adopted in these countries since the post-WWII era. Bresser-Pereira, sticking to a conjunctural and economist interpretation of the crisis, developed his theory on the crisis of the state, attributing to it a cyclical character. He claimed, in that context, that: "if the state had been the instrument of collective action that had ensured high growth rates in the post-war

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1 Our choice of economist Luiz Carlos Bresser-Pereira as an example of an interpreter of the neoliberal ideas to be implemented in Brazil in the 1990s is because we understand him to be a leading figure in the formulation and execution of a project to dismantle the Brazilian state completely in line with neoliberal dictates. We have kept the original spelling "reforms", but we understand that critical theory (in which we are situated) qualifies the so-called "managerial reform of the Brazilian state" as a "counter-reform" and that it was not restricted to the bureaucratic administrative dimension, as the leaders of neoliberalism in the 1990s believe. For an in-depth discussion of this debate, see Brito (2016).
period, it was *now its* crisis that was leading to a reduction in these rates" (Bresser-Pereira, 2004, p. 539, emphasis added).

In May 1987, shortly before accepting the invitation to the Ministry of Finance in the José Sarney government (1985-1990), Bresser-Pereira presented the paper "Mudanças no padrão de financiamento do investimento brasileiro" (Changes in the pattern of financing Brazilian investment) at a seminar at Cambridge University in England. In this paper, he argued about what he believed to be the true nature of the crisis plaguing the Brazilian state: a fiscal crisis. A crisis of the state itself and of the import substitution development model adopted for the country's development since the middle of the 20th century.

In 1988, in the publication "O caráter cíclico da intervenção estatal" (The cyclical nature of state intervention), Bresser-Pereira based his argument on the "theory of the cyclical nature of crises", reiterating that the crisis that marked the state, in Brazil and around the world, had this characteristic and was therefore not permanent. In 1991, the collection "Crisis of the State" sought to bring together Bresser-Pereira's reflections on the corollary for Latin America proposed in what was then known as the Washington Consensus².

However, it wasn't until the 1990s that Bresser-Pereira's intellectual output began to take on a more obvious shape, reflecting on the crisis and the role of the state in Brazilian development. In "A reforma econômica em democracias novas" (Economic reform in new democracies) (Bresser-Pereira; Maravall; Przeworski, 1996) and "Uma interpretação da América Latina" (An interpretation of Latin America) (Bresser-Pereira, 1993), interpretations of the crisis of the state are outlined in more detail, both in Latin American developmental experiences and in the Welfare State of the central countries.

In these articles, the argument of supposed state gigantism was supported. It was argued that the state had grown too much and in a distorted way, resulting in growing public deficits, undermining public savings and, gradually, its institutions were losing their

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² The name was created from discussions held in 1989 in Washington at a meeting attended by international financial organizations (IMF, World Bank and IDB). The aim of the meeting was to evaluate the neoliberal economic reforms undertaken in Latin American countries.
functionality. This diagnosis gave rise to the proposal to restructure (i.e. dismantle) the state, which was forced to review its relationship with the private sector on an economic level and with civil society on a political level.

The prescription proposed based on the liberal reading of the Brazilian crisis ranged from macroeconomic reforms to changes in public management and administration. It is in this context that the reflections on a managerial reform of the Brazilian state would have Bresser-Pereira as their intellectual.

The victory of sociologist Fernando Henrique Cardoso, of the Brazilian Social Democracy Party (PSDB), in the October 1994 presidential elections, brought to power segments of civil society and the Brazilian intelligentsia that, in a very general way, interpreted the economic crisis that had been going on in the country since the previous decade as originating in the crisis of the state.

As a response to the crisis, some economists contributed to the development of a conservative consensus around the need to restructure this "Social Bureaucratic" State, in the words of economist and former minister Bresser-Pereira (2004). For him, the state was bankrupt and incapable of responding to the demands of a globalized world. What actually happened in Brazil in the 1990s was the construction of a state model that was absolutely in line with the neoliberal proposals then in vogue for Latin America and other developing countries, associated with the effective dismantling of the state public sector.

The success of the price stability achieved with the Real Plan, the circulation and massification of an orthodox liberal economic corollary in the last few years of the last century contributed to the construction of a conservative social environment. This scenario favored the reformulation of the regulatory role of the state, which ceased to act as a direct agent of development and began to act as a "partner", a catalyst and driving force behind market-oriented capitalist accumulation.

It is in this context, therefore, that the political intervention of Bresser-Pereira, who, in our view, was the main ideologue of the restructuring of the Brazilian state, fits in. He was a hybrid intellectual, ironically seen by Oliveira (1995, p. 68) as a "symbolic (neutral) analyst" of objective reality, a strict defender of the so-called "public interest". Bresser-
Pereira, a mixture of intellectual, CEO and professional politician, was able to give organicity and systematize a corollary that condemned the interventionist-monopolistic state then in vogue in Brazil. In this way, he fulfilled the full role of the intellectual who, in the symbolic field, imprinted and universalized a given vision of objective reality that, in practice, was partial. He undoubtedly represented the conscious political (and ideological) demands and interests of certain social groups in the process of building their own hegemony.

Therefore, faced with what was presented as "inexorable" - the managerial restructuring of the Brazilian state - Bresser-Pereira was among the intellectuals who set out to provide new interpretations (which became hegemonic in Brazil) for the "challenges" of the new world, this neoliberal and globalized one. Not without some rhetorical and ideological contortions, he sought to make the pillars of that new order palatable to large segments of civil society: "democracy" and "the market", seen as "necessary" responses to the crisis of the state.

In that context, to reform and privatize the state was to bring "Brazil into line with the world," said then-president Fernando Henrique Cardoso (1996, p. 23) enthusiastically in 1995, a kind of condottiere of the rentier business fractions of Brazilian society, affiliated to the neoliberal globalism characteristic of that historical period. Interministerial Explanatory Memorandum No. 49 - drawn up in August 1995 by the ministers of Justice, Finance, Social Welfare and Assistance, Education and Sport, Federal Administration and State Reform, and Planning and Budget - opened up a normative legal flank for the:

A break with rigid and uniform legal and institutional formats, allowing the implementation of a new structural design in the Brazilian Public Administration that will include differentiation and innovation in the treatment of structures, legal forms and management and control methods, particularly with regard to the legal regime of civil servants, staff recruitment mechanisms and remuneration policy (Brazil, 1995, emphasis added).

The state management reform proposal developed by the Cardoso government, after building a broad consensus in civil society - which had the enthusiastic support of the
country's major media groups - was approved in June 1998, almost three years after it was proposed in the National Congress.

It was from the discourse of new management methods, the relaxation of "rigid" public administration rules and the possibility of close partnerships with the private sector that the educational reform proposals for PTE in Brazil were inserted at the end of the 1990s. The Professional Education Expansion Program (PROEP) and the "cefetization" of the Technical Schools that had existed in the country up to that point were in line with the corollary that pointed to professional technical training as separate from broader training and inevitably subordinated policies in the field of PTE to the light qualification of manpower for the strict demands of the private sector.

3 The PTE Reform: impacts on CEFET-RN's curriculum proposal

Within this context, a series of actions were launched aimed at education. As far as vocational education institutions are concerned, these measures were aimed at reforming the PTE, adapting it to the production system, the globalized economy and the neoliberal model. To this end, Decree No. 2.208/1997 (Brazil, 1997a), which regulated the Guidelines and Bases Law (Law No. 9.394/1996), and Ordinance No. 646/1997 (Brazil, 1997b) were issued. According to Oliveira (2004, p. 9):

The justification for the reform was based on the discourse of adjusting to the rapid changes of the supposed "knowledge society", where the volume of information is constantly being surpassed, requiring a redefinition of school education: the acquisition of basic knowledge and the development of the ability to use different technologies. There was also a demand for the ability to search for information, analyse and select it, rather than simply memorizing it.

In addition, international organizations (the World Bank, the Inter-American Development Bank and the International Labor Organization) questioned the efficiency, effectiveness and costs of technical education. The following reasons were given:

- a) quality vocational secondary education attracted the children of the better-off classes, to the detriment of the children of the working classes;
- b) students with this profile, instead of staying in the job market, ended up going to universities;
- c) vocational education should not be concerned with the general education of...
students, which is the exclusive responsibility of basic education (Ramos, 2002, p. 403).

In order to implement this reform, Ordinance No. 1.005/1997 was launched, which put PROEP into effect (Brasil, 1997c). According to Moura (2005, p. 62), this program aimed to restructure the Federal Network "from the point of view of its educational offerings, management and business relations with a view to making it competitive in the educational market and thus moving towards increasing its self-financing capacity". The notion of self-financing and partnership between public and private institutions was one of the guiding premises of the State Reform advocated by Bresser-Pereira, at the head of MARE (Bresser-Pereira, 1998).

The PTE Reform imposed changes on the administrative and pedagogical structure of the institutions that made up the Federal System³. In order to restructure the curricula of these schools, the DCNEPNT were published by means of Opinion No. 16/1999 (Brasil, 1999a), which, later, together with the National Curriculum Referentials for Professional Education at Technical Level (RCNEPNT), launched in 2000, organized the parameters to be followed in drawing up the pedagogical proposals of the PTE institutions (Brasil, 2000).

Opinion no. 16/1999 indicated four principles that should guide technical level courses: 1. the link with the world of work and social practice; 2. the independence and articulation between secondary and technical education; 3. the flexibility of technical courses and their curricula; 4. the versatility of professional profiles (Oliveira, 2004, p. 6).

According to this opinion, in addition to these four general principles, PTE institutions should follow five specific ones: 1. competences for work; 2. flexibility, interdisciplinarity and contextualization; 3. identity of professional profiles; 4. permanent updating of courses and curricula; 5. school autonomy (Brasil, 1999a).

³ The Federal System of Professional, Scientific and Technological Education was only officially created in 2008, through Law No. 11.892 (Brasil, 2008). We use the term Federal System here to refer to all these institutions at the time of the PTE Reform.

⁴ After this opinion, which approved the DCNEPNT on October 5, 1999, they were instituted by CEB Resolution No. 4 of December 8, 1999 (Brasil, 1999b).
Therefore, we can see that the DCNEPNT was not a guiding document for the construction of the CEFET curriculum, but a kind of "recipe" to be followed in order to prevent the curricula from deviating from the proposal predetermined in the EFA Reform documents, with an emphasis on the creation of professional areas that would provide the outlines for the creation of technical courses. The basic premises defined by the MEC for drawing up the curricula should be:

[…] make it possible to define methodologies for drawing up curricula based on the general professional competencies of the technician by area; and each institution must be able to build its full curriculum in such a way as to take into account the peculiarities of technological development with flexibility and to meet the demands of the citizen, the labor market and society (Brazil, 1999a, p. 4).

These determinations were intended to generate, through the curricula, new professional skills in harmony with the needs of the market. However, even though the DCNEPNT spoke of "independence and articulation with secondary education" (Brasil, 1999b), in practice they maintained the divorce between propaedeutic and technical training established by Decree No. 2.208/1997, under the argument of giving the PTE back its vocation and mission: to train to meet the demands of the private productive sector.

With the implementation of the DCNEPNT, institutions began to experience the competency-based curriculum, understood as "the ability to articulate, mobilize and put into action the values, knowledge and skills necessary for the efficient and effective performance of activities required by the nature of the work" (Brasil, 1999a, p. 33). Therefore, according to CNE Opinion No. 16/1999,

It can therefore be said that someone has professional competence when they constitute, articulate and mobilize values, knowledge and skills to solve problems that are not only routine, but also unusual in their field of professional activity. In this way, they act effectively in the face of the unexpected and the unusual, overcoming the accumulated experience transformed into habit and freeing the professional for creativity and transformative action.

We can see that the aim was to train a "do-it-all" worker, which is why the document stresses that the technological revolution and the process of reorganizing work require curricula to be revised. This is due to the fact that workers are required, "in increasing
doses, to have a greater capacity for reasoning, intellectual autonomy, critical thinking, self-initiative and entrepreneurial spirit, as well as the ability to visualize and solve problems" (Brazil, 1999a, p. 20, emphasis added).

Ramos (2006, p. 273) understands the pedagogy of competences as:

the way in which education reconstitutes, in contemporary times, its function of integrating subjects into the social relations of production that have been reconfigured on an economic level - by productive restructuring - on a political level - by neoliberalism - and on a cultural level - by post-modernity. In other words, the pedagogy of competences is, in contemporary times, the pedagogy of the Knowledge Society, the Post-Industrial Society or Post-Modern Societies.

Consistent with the picture that was emerging at the end of the 20th century, the RCNEPNT presented the concept of competence as the "new paradigm" of education, presenting it as a central element of the PTE Reform. In addition, they guided the conversion of current paradigms to the competency model (Chart 1).

<table>
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<tr>
<th>Overcoming the paradigm</th>
<th>Paradigm being implemented</th>
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<tbody>
<tr>
<td>Focus on the CONTENTS to be taught.</td>
<td>Focus on SKILLS to be developed in knowledge (knowing, knowing how to be, knowing how to do)</td>
</tr>
<tr>
<td>Curriculum as an end, as a regulated set of subjects.</td>
<td>Curriculum as an integrated and articulated set of situations, pedagogically designed and organized to promote meaningful professional learning.</td>
</tr>
<tr>
<td>Target of official control: compliance with the curriculum.</td>
<td>Target of official control: generations of General Professional Competences.</td>
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Source: Brasil (2000, p. 11, emphasis added).

Ramos (2002, p. 420) highlights the ideological nature of the DCNEPNT text in terms of redirecting PTE towards a post-industrial and post-Fordist perspective. In this sense,

[...] following the guidelines of official curricular documents, vocational education will remain associated with compensatory alternatives for the working class, deprived of an authentic technological education in tune with modern production standards and the most advanced scientific-technological and social knowledge (Ramos, 2002, p. 419-420).
The DCNEPNT organized the qualifications by professional area and adopted modules, seen as the "didactic-pedagogical set systematically organized for the development of significant professional competences" (Brasil, 1999a, p. 36). According to Opinion No. 16/1997, modularization was provided for in Article 8 of Decree No. 2.208/1997 (Brasil, 1997); this would not only contribute to flexibility in the curricula of EPT institutions, but would also meet the needs of workers, companies and society more quickly.

As far as CEFET-RN is concerned, according to Lima and Souza (2021), this institution had already had a Curriculum Proposal in place since 1995 which, while taking market interests into account, had principles and objectives aimed at integrating general and professional training, and explicitly emphasized the commitment to training the technician-citizen, as Souza and Queiroz (2020) note.

However, in order to comply with Decree 2.208/1997 and to obtain funds from a project submitted to PROEP, the institution began to reformulate the 1995 Curriculum Proposal and review the technical courses on offer. The justification was the same as that used by the government: to obtain the conditions to compete in a labor market that was undergoing constant change. However, it is important to emphasize that, in view of PROEP, it was necessary to guarantee increasingly scarce financial resources in the government budget, hence the need for partnerships with the private sector to make the proposed agreements viable.

Moura (2005, p. 64), when referring to the budget reductions already in place at CEFET-RN, understands the institution’s adherence to this funding program from international resources as follows:

5 This is exemplified by agreement 131/98, which instituted the Professional Education Reform Program at the Federal Technical School of Rio Grande do Norte.
should be based on expanding its social function, while for the federal administration the focus should be on increasing the institutional capacity for self-financing.

According to the Curriculum Restructuring Project, completed in 1999, educational systems should base their curricula on the skills and competencies required by the productive sector. "They show, above all, that a better-educated workforce is able to respond more quickly and flexibly to the new demands of the productive world and society" (Centro Federal de Educação Tecnológica do Rio Grande do Norte, 1999, p. 18).

It's important to remember that CEFET/RN's Curriculum Restructuring Project was based on the principles established by the DCNEPNT, already listed here. Thus, the social function adopted by the institution, as presented in the 1999 document, was to train the professional-citizen through "a process of appropriation and production of scientific and technological knowledge, aimed at a competent performance in the productive world, in order to contribute to the construction of a more just and egalitarian society" (Centro Federal de Educação Tecnológica do Rio Grande do Norte, 1999, p. 119).

Despite the importance given to citizen education and the creation of a "fairer and more egalitarian society", it is possible to see the document's emphasis on serving the productive sector, following the instructions of the School Strategic Planning Manual (Brasil, 1997d), drawn up by PROEP and sent to PTE institutions with the aim of implementing the PTE Reform.

Thus, the objectives of the Curriculum Restructuring Project do not emphasize the full training of students, but rather concern for the market:

To promote the training of young people and adults through the acquisition of knowledge and the development of general and specific skills for the performance of professional activities and effective participation in society;
To enable the training of professionals at technical, technological and postgraduate levels, with a view to the competent exercise of productive activities and commitment to improving the lives of the population;
To offer specialization, improvement and updating courses to professionals already working in the job market, with a view to continuously improving their work skills and fully exercising their citizenship;
To provide qualification, reprofessionalization and updating for young people and adult workers, regardless of their level of education, with a view to their inclusion in the world of work and conscious participation in social life;
Promote courses at higher education level, with a view to training teachers and specialists in the technological field;
To train professionals through special pedagogical training programs, with a view to their working as teachers of specific subjects at the various levels of professional education;
To encourage technological research, with the aim of extending its benefits to the productive world and society in general (Centro Federal de Educação Tecnológica do Rio Grande do Norte, 1999, p. 119-120).

This excerpt from the CEFET-RN document gives us an idea of the ideological influence of the EFA Reform. The objectives show the tone of the debate on technical education in the 1990s, now with the incorporation of the Ohnisti model into the PTE curriculum a few decades too late. As Carvalho and Cavalcanti (2022, p. 3, emphasis added) state:

The debate on secondary education and its implications for vocational training was saturated with concepts such as skills, knowledge and curricular flexibility. The thesis was that new ways of organizing work and production demanded new models of education and vocational training and was disseminated by the discourse in defence of entrepreneurship, employability and an education based on the skills, competences and technical knowledge needed to train the new worker.

According to Lima and Souza (2022), even though the Project declares its opposition to traditional pedagogy in its text, this document does not show a break with this approach, but rather a union of this pedagogy with a new one. By claiming to be based on a historical-critical conception, the document contradicts itself by repeatedly mentioning the pedagogy of competences.

One detail that makes this contradiction explicit is the fact that the document states that historical-critical training would be implemented through the "[...] development of skills that go beyond the limits of mere instrumental action, to be characterized as a set of broader skills required by work and social life" (Centro Federal de Educação Tecnológica do Rio Grande do Norte, 1999, p. 125). Therefore, the institution made it clear that the competency-based curriculum, as well as meeting the requirements of the PTE Reform

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6 A reference to Taiichi Ohno, an engineer and executive who created the industrial production model known internationally as Toyotism.
legislation, was aligned with the new relationship between education and work, which was market-based.

For further clarification, we highlight the incoherence between the pedagogy of competences and historical-critical pedagogy. For Saviani (2011, p. 8-9), the task of school education based on the latter implies:

a) Identifying the most developed forms in which historically produced objective knowledge is expressed, recognizing the conditions of its production and understanding its main manifestations, as well as current trends of transformation.

b) Converting objective knowledge into school knowledge, so that it can be assimilated by students in school space and time.

c) Providing the necessary means for students not only to assimilate objective knowledge as a result, but also to understand the process of its production, as well as the trends of its transformation.

On the distinction between historical-critical pedagogy and the pedagogy of competencies, the latter being the antithesis of the former, we quote Ramos (2016, p. 67):

We understand historical-critical pedagogy as a necessary counterpoint to contemporary trends […], which have one of their roots in pragmatism and one of their expressions in scholasticism. *The pedagogy of competences, in our understanding, is the current form of these trends.* In these conceptions, knowledge is only an input for the development of mental schemes that adapt to the environment. In the historical-critical perspective, on the other hand, human apprehension of the world includes knowledge of the properties of the real world - physical and social - and of the historical processes of representing, valuing and conceptualizing that world (emphasis added).

It is important to point out a detail in the two volumes of CEFET-RN’s Curriculum Restructuring Project: the absence of any mention of terms such as omnilateralism, polytechnics and unitary schools, which are dear to the hearts of those who advocate an PTE proposal aimed at training workers beyond the demands of the labor market. In addition, we would point out that Opinion no. 16/1999, when outlining the profile of the professionals to be trained, stresses the importance of polyvalence, i.e. "the attribute of a professional possessing skills that allow him/her to overcome the limits of an occupation or circumscribed field of work, in order to move on to other fields or occupations in the same or related professional areas" (Brasil, 1999a).
The distinction made by Machado (1994, p. 19) between polyvalence and polytechnics\(^7\) also seems to us to be extremely important when it comes to reflecting on the document drawn up by CEFET-RN in 1999:

Polyvalence simply means more varied work with a certain openness in terms of the worker's ability to manage their time and does not necessarily mean a qualitative change in tasks [...] In order to be a polyvalent worker, it is sufficient to use the empirical knowledge available, with science remaining something external and foreign to them. [...] Polytechnics represents the mastery of technique at an intellectual level and the possibility of flexible work with the creative recomposition of tasks. It means going beyond merely empirical knowledge by requiring recourse to more abstract forms of thought. It goes beyond simply technical training in that it presupposes a broad profile of worker who is aware and capable of acting critically in creative activities and autonomously seeking the knowledge necessary for their progressive improvement.

Therefore, the polytechnic and full-time school requires "a close link between studies and socially productive work of great social and educational significance. Thus, the Polytechnic School would be a great lever for building a more just, equitable and emancipated society" (Azevedo; Lopes; Silva Filho, 2023, p. 10).

Following higher education guidelines, CEFET-RN's Curriculum Restructuring Proposal mentions the concept of competence used in Opinion No. 16/1999: the "ability to mobilize knowledge, skills and attitudes in an articulated manner for the performance of productive activities" (Centro Federal de Educação Tecnológica do Rio Grande do Norte, 1999, p. 127).

Considering the nature of the mental operations required, the humanistic and technical professional dimension of curriculum restructuring and the characteristics of the activity to be carried out, the aforementioned document presents six types of competences, namely: technical-cognitive, organizational, communicative, social, behavioural and political. It goes on to say that it does not intend to exhaust the discussions on this subject, but rather to show the inseparability between competences, as they are multidimensional in nature, "involving facets that are not restricted to know-how in its operative connotation.

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\(^7\) It is worth noting that the term Polytechnics is generally attributed to the studies of Karl Marx. However, before him, several libertarian thinkers already defended the assumptions of what would become this polytechnic education, as Brito (2020) points out.
Associated with this idea, its fundamental characteristic is that it is in a permanent process of construction and reconstruction" (Centro Federal de Educação Tecnológica do Rio Grande do Norte, 1999, p. 129).

Once the concept of competence had been defined, MEC/SEMTEC gathered together all the activities that generated products and services in the job market. It came to the conclusion that similar or similar productive activities could be grouped according to different criteria, namely: purposes, objects or characteristics of their productive processes. In this way, "The existence of a core of common competences therefore characterizes the concept of professional area adopted by the National Curriculum Guidelines for Technical Professional Education and by the Curriculum Referentials" (Brasil, 2000, p. 23).

Based on this MEC/SEMTEC study, twenty professional areas were identified: Agriculture, Arts, Commerce, Communication, Construction, Design, Geomatics, Management, Personal Image, Industry, Information Technology, Leisure and Social Development, Environment, Mining, Chemistry, Fishing Resources, Health, Telecommunications, Transportation, Tourism and Hospitality. In the annex to CNE Opinion No. 16, we find the general professional competencies for each of these areas, whose minimum workloads varied between 800 and 1,200 hours (Brasil, 1999a).

From then on, the CEFETs, armed with a diagnosis of the region in which they operate, began to select the areas to be offered. As far as CEFET-RN is concerned, the curriculum matrix is now made up of six professional areas: Civil Construction, Industry, Environment, Mining, Tourism and Hospitality, and IT. The selection of these and the corresponding courses took into account "meeting the demands of students, the local productive sectors and society. The possibilities of reconciling these demands with

8 The following professional areas were also consulted in the selection process: The Regional Council of Engineering and Architecture of Rio Grande do Norte (CREA-RN), the Organization of the Civil Construction Industry, Empresa Brasileira de Turismo (EMBRATUR), the Secretariat of Tourism of Rio Grande do Norte (SECTUR/RN), the National Confederation of Industry (CNI), the National Industrial Learning Service and the Euvaldo Lodi Institute (IEL), the Brazilian Micro and Small Business Support Service of Rio Grande do Norte (SEBRAE/RN) (Federal Center for Technological Education of Rio Grande do Norte, 1999).
CEFET/RN's vocation, capacity and potential were also taken into account” (Centro Federal de Educação Tecnológica do Rio Grande do Norte, 1999, p. 120-121).

The emphasis given to the market in CEFET-RN's curriculum reform is in line with the comment made by Oliveira (2004, p. 7, emphasis added) in relation to the PTE Reform:

The professional education emerging from the reform is not an attempt to get closer to the market in order to adapt to it. Vocational education here is the market itself, circumscribed by the law of demand and supply: the course will only exist if demand is confirmed and in the condition that suits it.

Finally, CEFET-RN's Curriculum Restructuring Project completed its adaptation to the PTE Reform by drawing up the curricular matrices for the technical level courses. The professional areas were selected on the basis of studies carried out in groups and with consultants who defined the specific competences for each qualification and course. The team then carried out a study of the production process in each of these areas, identifying their functions and sub-functions.

According to the RCNEPNT, in the production process of each professional area, the "major attributions" of these should be identified, i.e. the significant stages or functions that make up or characterize it. Each of the functions related to mental operations or basic actions allows for the generation of "more specific activities", while the sub-functions allow for the creation of products or partial results defined within these production processes (Brasil, 2000, p. 25).

Once the competences had been defined, defined as "knowledge articulated and mobilized through mental schemes" for each sub-function, and the skills "that allow these competences to be put into action, in efficient and effective achievements", the next step was to situate the technological bases "or systematized sets of concepts, principles and processes (methods, techniques, terms, norms and standards) resulting, in general, from the application of scientific knowledge to this productive area" (Brasil, 2000, p. 26).

According to Lima and Souza (2022), from then on, the competences, skills and technological bases identified for each sub-function of the production process became part of the curriculum matrix, which would then guide the organization of modules or blocks that...
would make up each CEFET's curriculum proposal. As far as CEFET-RN is concerned, the authors state that this institution began to organize its curricular structure in the form of terminal modules, which are articulated, although not dependent. On completing a module, the student would receive a qualification certificate; and on completing all the modules of a course, having fulfilled the minimum workload, the student would receive a diploma as a high school technician.

Therefore, corroborating Lima and Souza (2022), we can see that CEFET-RN's curricular matrices, consistent with the RCNEPNT guidelines and other legislation created at the time, showed that professional training was adapted to the needs and flexibility demanded by the private production sector. Gradually, the institution aligned itself with the new *pedagogy of hegemony*: "an education for consensus on the meanings of democracy, citizenship, ethics and participation suited to the private interests of big national and international capital" (Neves, 2005, p. 15).

4 Conclusions

In this article, based on the sources produced by the MEC and CEFET-RN, based on the guidelines (i.e. determinations) of international organizations, we seek to understand how this institution adapted to this larger context in terms of restructuring its curriculum.

As demonstrated throughout the article and inherent in the state's market-oriented model of action and aligned with the neoliberal societal model, CEFET-RN fully adhered to the PTE Reform in the 1990s. In our view, this (counter)reform was a step backwards in Brazilian education, since it reinforced and made explicit the historical educational duality: a propaedeutic education for the elite and technical education for the children of workers, as well as the crystallization of the separation between secondary education and PTE.

In obedience to the superior determinations contained in the DCNEPNT and the RCNPEPN, CEFET-RN organized its curricular structure into matrices that brought together professional areas to be offered by the institution. The high school technical courses, in concurrent and subsequent forms, now modular, are now based on the notions...
of competencies and skills, with the aim of meeting the demands of local productive arrangements.

Therefore, the curriculum reform recommended for the implementation of PROEP consolidated the alignment of that institution and other PTE institutions with the neoliberal logic prevailing at the time. We therefore have an PTE reform aligned with the dictates of the neoliberal reform of the state. A reform of an ethical, political and ideological nature, far from being merely administrative, managerial and inevitable, as the supporters of that societal model claimed.

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