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Industrial education under legal bias: from organic laws (1942) to LDB 4,024/1961

O ensino industrial sob o viés legal: das leis orgânicas (1942) à LDB 4.024/1961

La educación industrial bajo sesgo jurídico: de las leyes orgánicas (1942) a la LDB 4.024/1961

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How to cite: JUNIOR, W. L. O ensino industrial sob o viés legal: das leis orgânicas (1942) à LDB 4.024/1961. *Revista Diálogo Educacional*, Curitiba, PUCPRESS, v. 25, n. 86, p. 1611-1623, 2025.
<https://doi.org/10.7213/1981-416X.25.086.AO09EN>

Abstract

This article's main objective is to analyze educational legislation from the promulgation of the organic law on industrial education and the law creating the National Industrial Learning Service (SENAI), which occurred in January 1942 until 1961, when the Law of Guidelines and Bases (LDB) 4,024/1961. As categories of analysis, we seek to clarify the development of industrial education in the proposed section from two aspects: I – in relation to the articulation between teaching levels, in particular, in the possibilities of verticalization of teaching to graduates of different industrial courses; II – in relation to the issue of public and private institutions responsible for industrial education, with a focus on technical schools in the federal network and SENAI. The article is divided into three parts. The first part seeks to contextualize the organization of industrial education that occurred due to the promulgation of Decree-Law 4,073, of January 30, 1942, the Organic Law of Industrial Education and Decree-Law 4,048, of January 22, 1942, which created SENAI. The second part analyzes the trajectory of industrial education during the 1950s, and finally, the third part analyzes EPT within the scope of LDB 4,024/1961. The period analyzed covers the trajectory of the verticalization of industrial education, starting with the organic law of

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industrial education, which allowed the possibility of entering a higher education course in a related area and consolidating in LDB 4,024/1961, with total articulation between levels.

Keywords: Federal Professional Education Network. Technical education. Professional and Technological Education. History of Education.

Resumo

Este artigo tem como objetivo principal analisar a legislação educacional a partir da promulgação da lei orgânica do ensino industrial e da lei de criação do Serviço Nacional de Aprendizagem Industrial (SENAI), ocorridas em janeiro de 1942 até o ano de 1961, quando foi promulgada a Lei de Diretrizes e Bases (LDB) 4.024/1961. Como categorias de análise, buscou-se esclarecer o desenvolvimento do ensino industrial no recorte proposto sob dois aspectos: I – em relação a articulação entre os níveis de ensino, em especial, nas possibilidades de verticalização de ensino aos egressos dos diferentes cursos industriais; II – em relação a questão das instituições públicas e privadas responsáveis pelo ensino industrial, com foco nas escolas técnicas da rede federal e do SENAI. O artigo está dividido em três partes. A primeira parte, busca contextualizar a organização do ensino industrial ocorrida devido a promulgação do Decreto-Lei 4.073, de 30 de janeiro de 1942, a Lei orgânica do ensino industrial e do Decreto-lei 4.048, de 22 de janeiro de 1942, que criou o SENAI. A segunda parte trata de analisar a trajetória do ensino industrial durante a década de 1950, e por fim, a terceira parte trata de analisar a EPT no âmbito da LDB 4.024/1961. O período analisado aborda a trajetória da verticalização do ensino industrial, iniciando com a lei orgânica do ensino industrial, que permitiu a possibilidade de ingresso em curso superior aos técnicos de área correlata até a promulgação da LDB 4.024/1961, que promoveu a articulação total entre os níveis.

Palavras-chave: Rede Federal de Educação Profissional. Ensino Técnico. Educação Profissional e Tecnológica. História da Educação.

Resumen

El objetivo principal de este artículo es analizar la legislación educativa desde la promulgación de la ley orgánica de educación industrial y la ley que crea el Servicio Nacional de Aprendizaje Industrial (SENAI), ocurrida en enero de 1942 hasta 1961, cuando se promulga la Ley de Lineamientos y Bases (LDB). 4.024/1961. Como categorías de análisis, buscamos esclarecer el desarrollo de la educación industrial en el apartado propuesto a partir de dos aspectos: I – en relación a la articulación entre niveles de enseñanza, en particular, en las posibilidades de verticalización de la enseñanza a los graduados de diferentes carreras industriales; II – en relación a la cuestión de las instituciones públicas y privadas responsables de la educación industrial, con foco en las escuelas técnicas de la red federal y del SENAI. El artículo se divide en tres partes. La primera parte busca contextualizar la organización de la educación industrial ocurrida con motivo de la promulgación de la Ley Orgánica de Educación Industrial y de la ley que creó el SENAI. La segunda parte analiza la trayectoria de la educación industrial durante la década de 1950, y finalmente, la tercera parte analiza la EPT en el ámbito de la LDB 4.024/1961. El período analizado abarca la trayectoria de verticalización de la educación industrial, comenzando con la ley orgánica de educación industrial, que permitió la posibilidad de ingresar a un curso de educación superior en un área afín y consolidándose en la LDB 4.024/1961, con total articulación entre niveles.

Palabras clave: Red Federal de Educación Profesional. Educación técnica. Educación Profesional y Tecnológica. Historia de la Educación.

Introduction

This article's main objective is to analyze and discuss educational legislation from the enactment of the Organic Law on Industrial Education and the law creating the National Service for Industrial Training (SENAI), which occurred in January 1942 until 1961, covering the period from the end of the dictatorial period of the Estado Novo (1937-1945), presided over by Getúlio Vargas until the enactment of the Law on Brazilian Education Guidelines and Bases (LDB) 4.024/1961.

During this period, we sought to analyze the context of the following educational legislation involving Professional and Technological Education: Decree-Law 4.048, of January 22, 1942, which created the National Industrial Apprenticeship Service (SENAI); Decree-Law 4.073, of January 30, 1942, which approved the Organic Law on Industrial Education; Constitution of the United States of Brazil, of September 18, 1946; Federal Law 1.076, of March 31, 1950; Law 1.821, of March 12, 1953; Law 3.552, of February 16, 1959; Decree 47.038, of October 16, 1959; and Decree-Law 4.024, of December 20, 1961, which approved the first Brazilian LDB.

As categories of analysis, we sought to clarify the development of industrial education in the proposed framework under two aspects: I – the articulation between the levels of education, in particular, the possibilities of verticalization of education for graduates of different industrial courses; II – the issue of public and private institutions responsible for industrial education, with a focus on technical schools in the federal network and courses offered within the scope of SENAI.

Regarding the methodological framework, based on appropriate procedures for analyzing school legislation, historical research will be used because educational legislation is currently used as a starting point in studies on the history of education. However, as with other sources, it requires contextualization by the historian to allow the correct interpretation of the facts researched (Blanck Miguel, 2006). It is in this sense that Oliveira (2005, p. 9, our translation) reports that:

Finally, from a historical perspective, analyzing the Brazilian State and its educational policies means explaining the economic and political context that supported policies, understanding the movement, explaining contradictions, informing the limits and perspectives of the proposed and implemented educational policies, in short, reflecting on the historical moment.

Educational legislation must be seen as essential to understanding the educational political period. Furthermore, due to Brazil's federative nature, it is understood that national educational legislation should be one of the starting points for understanding not only the history of Brazilian national education, but also the local history, since:

Considering that a system is a unity of variety, and not a unity of identity – therefore, a whole that articulates a variety of elements that, when integrated into the entirety, do not lose their own identity, but, on the contrary, participate in the whole, integrate the system in the form of their respective specificities, – the construction of a national education system has nothing incompatible with the federative regime. On the contrary, I would say that it is the proper way to respond appropriately. The educational needs of a country organized under a federal regime are precisely through the organization of a national education system. Indeed, what is a federation if not the unity of several states that, while preserving their respective identities, intentionally come together to ensure common interests and needs? And is not that precisely why the articulating level of the federation, the body that represents and manages what is common among the various federative entities, is called precisely the Union? Therefore, the federation establishes a national system, which, in the field of education, represents the Union of various educational services developed within the territorial scope of the various federative entities that comprise the federation (Saviani, 2013, p. 26, our translation).

The article is divided into three parts. The first part aims to contextualize the organization of industrial education that occurred with the enactment of Decree-Law 4.073, of January 30, 1942, the Organic Law on Industrial Education, and Decree-Law 4.048, of January 22, 1942, which created SENAI. The second

part analyzes the trajectory of industrial education during the 1950s. The third part addresses the fate of Professional and Technological Education in LDB 4.024/1961.

The organic law on industrial education and the creation of SENAI (1942)

The 1930s marked a significant political and economic shift in Brazil, as the group that ousted President Washington Luiz, in favor of supporting the coup d'état led by Getúlio Vargas, opted to replace Brazil's agro-export model with investment in large-scale industrialization. As a result, industrial expansion intensified in the country (Santos, 2011).

[...] In the educational reform implemented by Francisco Campos in 1931, whose normativity was enshrined in the 1934 Constitution, the federal government committed itself to secondary education, giving it its own content and grades. However, the encyclopedic nature of the curricula maintained the elitist characteristic of this teaching, while ignoring the professional branches, creating two independent systems. Although commercial vocational education has been regulated, no direct relationship between the two has been established. At the time when the ideology of development began to occupy space in the country's economic and political life, there was no consistent concern with technical, scientific, and professional education, making official the dualism configured by an encyclopedic and preparatory segment for higher education and another independent and restricted professional segment in terms of productive and occupational configuration (Ramos, 2014, p. 25-26, our translation).

The expansion of industrialization in Brazil has underscored the need for education policies that aim to meet the growing demand for qualified labor in the industry. During the dictatorial period of the Estado Novo (1937-1945), the regulation of education was conducted by Gustavo Capanema, then Minister of Education and Health, who, from 1942 onwards, began to publish the organic laws on education, creating SENAI and structuring industrial, secondary, and commercial education. Eight days before approving the Organic Law on Industrial Education, on January 22, 1942, the Decree-Law that created SENAI was published, in agreement with the industrial sector and represented by the Brazilian National Confederation of Industry (CNI). SENAI

[...] was born from the demands of Brazilian industrial expansion, which required a minimum level of training for workers, which had to be done in a faster and more practical way. This business-based education network, parallel to the official system, was implemented nationwide to organize and manage industrial training schools. Under the direction of the CNI, it offered short courses intended to prepare young apprentices to enter industries and continue education courses for workers not subject to apprenticeship (Santos, 2011, p. 217, our translation).

Industrial establishments should maintain SENAI, which would be required to pay a monthly fee to apprenticeship schools.

On January 30, 1942, Decree-Law 4.073 was approved, referring to the Organic Law on Industrial Education. This law established the foundations and organization of industrial education, covering the training of professionals in “industry and craft activities, as well as workers in transport, communications, and fishing” (Brasil, 1942, our translation).

According to the Organic Law, industrial education would be provided in two cycles. The first cycle covered basic, mastery, artisanal, and industrial apprenticeship education, as follows:

§ 1º Industrial courses are designed to provide comprehensive teaching of a trade that requires extensive professional training.

§ 2º Mastery courses aim to provide graduates of industrial courses with the professional training necessary to perform the role of foreman.

§ 3º Craft courses are designed to teach a trade over a short period.

§ 4º Apprenticeship courses are designed to methodically teach apprentices in industrial establishments their trade, over a variable period and under reduced working hours (Brasil, 1942, our translation).

The second cycle corresponded to technical education, which consisted of courses “aimed at teaching techniques appropriate for the exercise of specific functions in industry”, and pedagogical education, aimed at “training teaching and administrative staff for industrial education” (Brasil, 1942, our translation).

Regarding industrial education establishments, the following were highlighted: technical schools responsible for offering technical courses; industrial schools, intended for offering industrial courses; craft schools, intended for providing craft courses; and apprenticeship schools, intended for offering apprenticeship courses. Technical schools could also offer industrial, mastery, and pedagogical courses, just as industrial schools were authorized to provide mastery and pedagogical courses (Brasil, 1942). In this sense, according to Cunha (2000, p. 96, our translation), the Organic Law on Industrial Education sought to reconcile two types of worker training, the main one being developed in technical industrial schools (former Schools for Apprentice Craftsmen, transformed into Industrial High Schools in 1937) subordinated to the Ministry of Education and Health, which would offer secondary-level professional training, that is, technical courses. “The other modality would be apprenticeship, provided in ‘services’, which would combine school and work, aiming to teach part of each industrial trade” (Cunha, 2000, p. 96). This second modality, which includes a more streamlined training, would be the responsibility of SENAI.

Regarding the articulation between industrial education and other levels, the legislation contained the following wording:

Art. 18. The articulation of industrial education courses, and industrial education courses with other courses, will be carried out under the following terms:

I. The professional training courses for industrial education will be interconnected so that students can progress from one to the other according to their vocation and ability.

II. First-cycle vocational training courses will be linked to primary education, and technical courses to first-cycle secondary education, enabling target recruitment.

III. Holders of a diploma awarded as a result of completion of a technical course are guaranteed the possibility of entering a higher education institution, enrolling in a course directly related to the completed technical course, provided that the preparation conditions determined by the competent legislation are met (Brasil, 1942, our translation).

For admission to industrial, mastery, technical, or pedagogical courses, the law determined that it was necessary to present proof of not being a carrier of contagious diseases, as well as being duly vaccinated. Furthermore, the student must be at least 12 years old, have completed primary education, and have the physical capacity and mental aptitude for work, in addition to passing the entrance exam. The mastery course required completion of the industrial course, in addition to the entrance exam (Brasil, 1942).

For technical courses, students should have completed the first cycle of secondary education or an industrial course in a field related to the desired technical course. As in the case of the industrial course, it was necessary to have physical capacity and mental aptitude for the work, as well as to pass the entrance exam. Finally, to enroll in pedagogical courses, the candidate must pass an entrance exam and have completed either a mastery course or any technical course.

Organic Law 4.073/1942 was responsible for the inclusion of industrial education at the secondary level. According to Assis (2023), until the enactment of the legislation, there was a lack of coordination between vocational education and secondary education. In practice, this meant that students who wanted to continue their studies in higher education did not enter vocational education. Therefore, technical courses were intended for “working students, who, for objective reasons, were unlikely to pursue their training for

Higher Education” (Assis, 2023, p. 118, our translation). The Organic Law on Industrial Education sought to adjust some of these distortions. However, according to Romanelli (2012), despite some positive points in the Organic Law on Industrial Education about the organization of this education, the lack of flexibility between the various branches of professional education and between these and secondary education continued to be problematic. If, on the one hand, the Organic Law highlighted the possibility of verticalization, allowing graduates of industrial technical education to reach higher education in an area corresponding to their training; on the other hand, the academic destiny of industrial education students was determined after entering first-cycle industrial courses, since there was no possibility of changing the trajectory they had started, unless they abandoned the course they were attending and started again in another area, without having the chance to take advantage of their studies. “In any case, one alternative or another would always result in a waste of resources applied to education and a waste of the student's time” (Romanelli, 2012, p. 159-160, our translation).

On February 3, 1942, just three days after the publication of the Organic Law on Industrial Education, Decree No. 8.673 was published, approving the Regulation of the Framework of Industrial Education Courses. This Decree determined the subjects that industrial education should teach. For industrial courses, the General Culture subjects were:

[...] Portuguese, mathematics, physical and natural sciences, Brazilian geography, and Brazilian history. For mastery courses, the general culture subjects would be only Portuguese and mathematics. For technical courses, the curriculum would consist of: Portuguese, French or English, mathematics, physics, chemistry, natural history, universal history, and general geography (Silva Neto, 2021, p. 98, our translation).

Industrial education was reconfigured with the publication of the Organic Laws in 1942. According to Braga (2024), Minister Gustavo Capanema sought to establish an integrated industrial education system, in line with the nationalist goal of training working citizens, drawing inspiration from theories of social organization of work. In this sense, Capanema maintained an elitist vision, serving the economic interests of the dominant groups, which can be confirmed by the lack of workers' participation in the process of drafting laws:

From this perspective, professional education acquires a commercial aspect. What should be considered for industrial education is a means of training workers to meet the industry's needs, meeting the most immediate economic demands, with a view to greater economic efficiency. Therefore, industrialists were great advocates of installing professional selection and guidance methods. They believed that using rationality to select those most suited to the job would represent a reduction in losses and an increase in profitability (Braga, 2024, p. 104, our translation).

The Organic Law on Secondary Education, Decree-Law 6.141 of December 28, 1942, highlighted the academic and aristocratic roots of secondary education, with a main propaedeutic role focused on preparing students for higher education. The strengthening of private initiatives in the field of education must be considered, with emphasis on the creation of SENAI in 1942 and later SENAC in 1946. The set of organic laws that regulated education was a crucial milestone in the educational policy of the Estado Novo; however, “if there was organicity within each of these segments, the relationship between them did not yet exist, maintaining two parallel and independent educational structures” (Ramos, 2014, p. 26, our translation).

Industrial education during the 1950s

The president of the Supreme Federal Court (STF), Minister José Linhares, assumed the presidency of the country provisionally after the deposition of Getulio Vargas on October 29, 1945. He maintained the elections scheduled for December 2, 1945, which elected President Eurico Gaspar Dutra, with the support of

Getúlio Vargas. During the presidency of José Linhares, on January 2, 1946, the organic laws on primary education (Decree-Law 8529) and the normal course (Decree 8.530) were approved. The National Service for Commercial Apprenticeship (SENAC) was created by Decree-Law 8.621 on January 10, 1946. During the government of President Eurico Gaspar Dutra, the last of the organic laws was approved: the Organic Law on Agricultural Education, on August 20, 1946. Even though they occurred after the Estado Novo period, these laws sought to confirm the organization of Brazilian education as envisioned by Minister Gustavo Capanema.

The country experienced a democratic period known as the Fourth Republic or Populist Republic (1945-1964) after the end of the Estado Novo, which led to a struggle in the educational field for equivalence between the different branches of education. This equivalence was propagated in the 1950s, with periodical changes to the Organic Law on Industrial Education. The period of the Fourth Republic ended on April 1, 1964, with the coup d'état that gave rise to the period of military dictatorship in Brazil.

The democratic regime established required a new constitution for the country, which was promulgated on September 18, 1946, with the Constitution of the United States of Brazil. Published almost a year after the end of the Estado Novo, the 1946 Constitution promoted democracy in Brazil. In the chapter on education and culture, the 1946 Constitution determined that "education is a right of all and shall be provided in the home and at school. It shall be inspired by the principles of freedom and the ideals of human solidarity" (Brasil, 1946). Furthermore, the 1946 Constitution determined that public authorities would provide education, but private initiatives could also provide it.

Art 168 - Education legislation will adopt the following principles:

I - primary education is compulsory and will only be provided in the national language;

II - official primary education is free for all; official education beyond primary will be free for those who prove a lack or insufficiency of resources;

III - industrial, commercial, and agricultural companies employing more than one hundred people are required to provide free primary education for their employees and their children;

IV - industrial and commercial companies are obliged to provide, in cooperation, training to their young workers, in the manner established by law, respecting the rights of teachers;

V - religious education is a subject in the timetables of official schools, enrollment is optional and will be taught following the student's religious confession, expressed by the student, if capable, or by the legal representative or guardian;

VI - for the appointment of professorships in official secondary education and official or free higher education, a competitive examination based on qualifications and exams will be required. Professors admitted through a competitive examination based on qualifications and exams will be guaranteed life tenure;

VII - academic freedom is guaranteed.

Art 169 - Annually, the Union shall apply never less than ten percent, and the States, the Federal District, and the Municipalities never less than twenty percent of the income resulting from taxes to the maintenance and development of education (Brasil, 1946, our translation).

Romanelli (2012, p. 176) reports that the principles of the 1946 Constitution have a liberal-democratic ideological inspiration; however, they were not based on the liberal philosophy inspired by the European economic policy of the 18th and 19th centuries. The 1946 Constitution was inspired by the social doctrines of the 20th century, distancing itself from the "liberal-aristocratic ideology espoused by our elites, in the old regime" (our translation).

In 1950, Federal Law 1.076 was approved on March 31, which dealt with improving the articulation between regular and professional education, ensuring that graduates of first-cycle courses, at an elementary level related to professional and technological education (commercial, industrial, and agricultural) have the right to enroll in any secondary-level course (classical or scientific), as long as they took equivalence exams for subjects not taken in the first cycle (Brasil, 1950).

However, the equivalence between secondary education courses in Brazil was recognized after the enactment of Law 1.821 of March 12, 1953. The law highlighted the permission for entry into classical or scientific courses at secondary level for graduates of secondary school, basic commercial, industrial, or agricultural education, normal, or officer training courses by the military police (Brasil, 1953).

Law 1.821/1953 also provided details on the articulation between secondary and higher education levels. According to the legislation, candidates who took the entrance exam and graduated from any secondary level course, including technical courses in commercial, industrial, or agricultural education, would be entitled to enroll in any higher education course. Law 1.821/1953 required candidates to take exams in subjects not taken in middle school or high school to complete secondary education (Brasil, 1953). Finally, it is worth highlighting that it was up to the public authorities to:

[...] conduct the necessary studies to establish a general system of equivalence between the several secondary level courses in order to allow ampler freedom of movement from one branch of this education to another and to facilitate the continuation of studies at a higher level (Brasil, 1953, our translation).

Law 1.821/1953 detailed the permission for graduates of professional courses to continue their studies at higher levels through exams relating to subjects not covered in their courses. Furthermore, the law provided for the improvement of equivalence between levels of education, which influenced the LDB project that was circulating in parliament. Law 1.821/1953 included a democratic initiative to allow graduates of any course the opportunity to pursue higher education.

The increased demand for higher qualifications in the workforce, resulting from rapid industrialization, led to the establishment of a new school and administrative structure for industrial education institutions following the enactment of Law 3.552, dated February 16, 1959, which included apprenticeship, basic, and technical courses.

The apprenticeship courses were intensive, but lasted less than 20 months, and aimed at young people aged at least 14 years old. Graduates of these apprenticeship courses could enter the basic course, subject to prior verification of their knowledge. The basic course lasted 4 years and was intended for primary school graduates. The goal of these courses was to “expand students' cultural knowledge, assess their skills, and help develop their abilities. They guided students, along with their families, in choosing opportunities for work or further education” (Brasil, 1959a, our translation).

Regarding technical courses, these should have four or more grades and “ensure the training of technicians to perform functions of immediate assistance to engineers or administrators, or to exercise professions requiring a professional with a technical degree in technological applications” (Brasil, 1959, our translation). Finally, the courses should be related to the economy and the job market, “articulating with industry and meeting the demands of the job market in the region served by the school” (Brasil, 1959a, our translation).

According to Ianni (1991), Brazilian history had periods of nationalist development strategy, such as the governments of Getúlio Vargas (1930-1945 and 1951-1954) and João Goulart (1961-1964). During these

periods, there was a growing nationalization of decisions regarding economic agendas. However, this trend was overcome by the project of associated capitalism, which occurred between the periods 1946-1950, 1955-60, and from 1964 onwards. This project implied “recognition of the conveniences and demands of the interdependence of capitalist nations under the hegemony of the United States” (Ramos, 2014, p. 18-19, our translation).

Decree 47.038, approved on October 16, 1959, regulated industrial education and created a new organization for this education at a national level. The courses continued to have two cycles. The first cycle covered industrial apprenticeship courses (lasting at least 20 months) and basic industrial courses (lasting 4 years). The second cycle consisted of technical industrial education (with four or more grades), comprising different courses. The extraordinary courses were short courses consisting of qualification, improvement, specialization, and dissemination courses (Brasil, 1959b).

Regarding articulation in Industrial Education, Law 47.038/1959, supported by Law 1.821/1953, allowed articulation between the different levels of education and contemplated the possibility of graduates of industrial courses to enroll in courses at higher levels (Brasil, 1959). The legislation also introduced important aspects regarding the federal network of industrial education institutions:

Art. 55. Federal schools are guaranteed the right to operate in their current buildings, which will continue to belong to the Union when they are federally owned.

Paragraph. The school's other assets, which constitute its facilities, remain under the control of the Union, as well as any that may be acquired.

Art. 56. The schools referred to in this Chapter will have their own legal personality and didactic, administrative, technical, and financial autonomy, subject to the limits established by current legislation (Brasil, 1959, our translation).

The industrial education schools of the federal network began to be administered “by a Council of Representatives, composed of six representatives of the community, chosen by the President of the Republic, based on proposals prepared by the Ministry of Education and Culture, after consulting the Directorate of Industrial Education” (Brasil, 1959, our translation). The technical schools that composed the federal network were transformed into autonomous institutions and named Federal Technical Schools (Ramos, 2014).

According to Nascimento (2007), Federal Technical Schools prioritized higher quality education. The importance of schools was so significant that, at times, companies themselves set up parallel courses at schools, outside of regular class hours, to train students who had not yet completed their courses. Teaching at Federal Technical Schools was full-time, and half of it was devoted to practical activities. The quality of education offered has led to industrial technical courses experiencing economic and social advancement, due to the professional prestige for graduates:

Full-time school meant that activities began with physical education classes at 7 a.m. and theoretical classes and workshops at 8 a.m. From 9 to 10 a.m., the school offered an energetic and succulent breakfast, after which theoretical classes, laboratory activities, or workshops continued until noon. Between noon and 2 p.m., a lavish and appetizing lunch was served, the menu of which would be the envy of any good restaurant, at least those frequented by the middle class (Nascimento, 2007, p. 242, our translation).

The SENAI network has grown immensely since its creation, changing according to the demands of the productive sector. In the 1940s, it began its activities focused on industrial training. From the 1950s

onwards, “it was the turn of the training modality, related to industrialization along the lines of large-scale industry” (Cunha, 2000, p. 102, our translation).

The concept of equivalence between levels of education culminated in the various legislations of the 1950s that influenced the discussion that had been circulating since the beginning of the decade about the construction of the LDB for the country. As a result, LDB 4.024 was enacted on December 20, 1961, which brought total equivalence between basic and secondary level courses, both of a propaedeutic and technical nature.

Professional and Technological Education in LDB 4.024/1961

LDB 4.024, enacted in 1961, addressed the interests of two privileged groups in the development of this educational legislation: the supporters of the New School, who aimed to strengthen public and accessible education for everyone, and the Catholic group, representing the private education network. The Brazilian government, meeting the demands of both groups, reconciled the antagonistic interests in the production of LDB 4.024/1961, primarily meeting the demands of educators linked to the New School movement, while maintaining the coexistence of the private system, represented by the Catholic group. Saviani (2010, p. 307, our translation) clarifies that:

In Anísio Teixeira's view, although the LDB fell short of Brazil's needs when it was approved, he saw the prevailing liberal, decentralizing approach in the document as a win. Thus, the aspiration of the renovators, who had been defending the autonomy of states and advocating for the diversification and decentralization of education since the 1920s, was enshrined in the LDB. This is the fundamental meaning of his statement that the approval of the guidelines and bases of national education meant half a win, but a win (TEIXEIRA, 1962). The victory was not complete due to the concessions made to the private sector, thus failing to endorse the other aspect defended by the Pioneers of New Education: educational reconstruction through the construction of a solid public education system.

Regarding the program, LDB 4.024/1961 proposed flexibility; thus, each educational institution could choose to include up to two optional subjects in its curriculum; that is, the curriculum ceased to be rigidly standardized, as was in the organic laws. However, for Romanelli (2012, p. 188, our translation), LDB 4.024/1961 did not change the *status quo* of education in force until then, despite having some advantages in relation to the previous legislation, which was extremely centralizing:

In essence, therefore, the law has not changed at all. Its only advantage, perhaps, lies in the fact that it does not prescribe a fixed and rigid curriculum for the entire national territory, at each level and branch. This, in our view, is the only progress of the law: the breaking of rigidity and a certain degree of decentralization. It was an opening that was necessary, but which, in truth, was only timidly rehearsed. The possibility for States and institutions to add optional subjects to the minimum curriculum established by the Federal Education Council was, without a doubt, a progress in terms of legislation. We said this in terms of legislation, and we said it well, because, in practice, schools composed their curriculum according to the material and human resources they already had; that is, they continued to maintain the same curriculum as before, when they were unable to improvise teachers and programs.

LDB 4.024/1961 organized secondary education into two cycles: junior high, lasting 4 years, and high school, lasting 3 years, both of which included technical education (industrial, agricultural, commercial, and teacher training). With this new teaching configuration, any graduate of a technical college course could apply for any higher education course, completing the process of equivalence in industrial education. However, it should be noted that:

The equivalence established by Law 4.024/1961, however, was unable to overcome duality, given the persistence of two education networks in the Brazilian educational system, with secondary education maintaining the privilege of being socially recognized. This is proven when we take as a basis the number

of enrollments raised by the statistics of the time, when we note that: of the 1.129.421 students enrolled in the second cycle, the largest concentration was in the capitals of the states of São Paulo, Minas Gerais and Rio Grande do Sul, 50% of enrollments corresponded to secondary education: 45% to the normal and commercial branches and only 5% to the industrial and agricultural branches (Santos, 2011, p. 219, our translation).

Technical education, proposed by LDB 4.024/1961, confirmed the three areas of secondary vocational education already covered by Gustavo Capanema's organic laws in the 1940s: industrial, agricultural and commercial: "Industrial, agricultural, and commercial courses will be taught in two cycles: middle school, lasting four years, and high school, lasting at least three years" (Brasil, 1961, our translation).

According to Santos (2011), in relation to SENAI, it is possible to state that Law 4.024/1961 brought a significant innovation, as it extended to SENAI the possibility of offering both the secondary course in four years and the technical-industrial course, offered in three years, which is equivalent to the secondary course. The provision of these levels of education was restricted to public institutions before the publication of LDB 4.024/1961. As a result, SENAI graduates were given the opportunity to enroll in any higher education course, just as was the case at federal technical schools.

Final considerations

From the end of the Estado Novo, Brazil entered a period of democracy, known as the Fourth Republic (1945-1964). This period resulted in a significant breadth of equivalence between the different regulated industrial education courses in the educational field. During the 1950s, several laws expanded the equivalence between courses, particularly affecting graduates of technical courses who were able to enter higher education courses after the enactment of Decree 1.821/1953 and, consequently, LDB 4.024/1961, which provided full equivalence between levels of education. It was an attempt to overcome the historical duality rooted in industrial education since the colonial period, in which slave society made a distinction between manual labor, assigned to slaves, and intellectual labor, assigned to the elites.

Following the enactment of the Organic Law on Industrial Education in 1942, the former Schools for Apprentice Craftsmen, created in 1909 and transformed into Industrial High Schools in 1937, were renamed Industrial and Technical Schools. This new teaching configuration brought significant prestige to these institutions. In 1959, Industrial and Technical Schools were renamed Federal Technical Schools, becoming autonomous institutions with administrative autonomy.

By Decree 4.048/1942, SENAI was created to train qualified workers for work in industries. The Organic Law on Industrial Education, published just eight days after the decree creating SENAI, allowed the institution to offer short-term industrial courses, while the Industrial and Technical Schools, maintained by the government, would offer long-term industrial courses. However, after the enactment of Law 4.024/1961, SENAI was authorized to offer secondary-level technical courses, taking on a demand previously reserved for public educational institutions. The increase in opportunities for private sector participation in educational legislation during the period under study stands out, as can be seen in some laws such as those that created SENAI and SENAC; the 1946 Constitution, which included private sector participation in the chapter on education; and LDB 4.024/1961, which enabled private institutions to offer secondary-level technical courses.

Even after the movement towards equivalence between the different levels of education, the legacy of the structural duality of Brazilian education, originating from the slave society of the colonial and imperial periods in Brazil, remains. This legacy continued into the following centuries through the provision of industrial education of a welfare nature, where students would not have the opportunity to access further levels of education.

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RECEBIDO: 19/06/2024

RECEIVED: 06/19/2024

APROVADO: 21/07/2025

APPROVED: 07/21/2025

Editor responsável: Alboni Marisa Dudeque Pianovski Vieira