EDUCAÇÃO EM FOCO
PROGRAMA DE PÓS-GRADUAÇÃO EM EDUCAÇÃO | UNIVERSIDADE DO ESTADO DE MINAS GERAIS

# A trajetória da disciplina História Natural/Biologia na Escola Normal Oficial de Pernambuco

*Gilmar Beserra de FARIAS*[1]

**Resumo**
O objetivo deste estudo foi o de investigar a trajetória da disciplina *História Natural/Biologia* na Escola Normal Oficial de Pernambuco, analisando a sua presença, denominação e os seus ramos do conhecimento, de 1864 até 2022. Por meio de pesquisa documental e historiográfica, foram conjuntamente analisados programas de ensino da Escola Normal, leis, atas, relatórios governamentais, revistas e notícias em jornais de grande circulação. A *História Natural* foi introduzida no currículo da Escola Normal em 1875. A *Biologia* iniciou a sua abreviação na década de 1970, quando foram incorporados conteúdos de Física e Química em uma disciplina chamada *Ciências Físicas e Biológicas*. Em 2022, por conta do seu estabelecimento como um componente curricular da Formação Geral Básica, a *Biologia* sofreu uma simplificação nos seus conteúdos a partir da implementação do Novo Ensino Médio em Pernambuco.

**Palavras-chave**: História da Educação. Escola Normal. Formação de professores.

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# The trajectory of the Natural History/Biology subject at the Official Normal School in Pernambuco

*Gilmar Beserra de FARIAS*

**Abstract**
The aim of this study was to investigate the trajectory of the *Natural History/Biology* subject at the Official Normal School of Pernambuco, analysing its presence, denomination and branches of knowledge from 1864 to 2022. Through documentary and historiographical research, the teaching programmes of the Normal School were analysed together with laws, minutes, government reports, magazines and news items in mass-circulation newspapers. *Natural History* was introduced into the Normal School curriculum in 1875. *Biology* began its abbreviation in the Normal School curriculum in the 1970s, when Physics and Chemistry content was incorporated into a subject called *Physical and Biological Sciences*. In 2022, due to its establishment as a curricular component of General Basic Education, *Biology* content has been simplified since the implementation of the New High School in Pernambuco.

**Keywords:** Education History. Normal School. Teacher formation.

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# La trayectoria de la asignatura Historia Natural/Biología en la Escuela Normal Oficial de Pernambuco

*Gilmar Beserra de FARIAS*

**Resumen**
El objetivo de este estudio fue la investigación relativa a la trayectoria de la asignatura *Historia Natural/Biología* en la Escuela Normal Oficial de Pernambuco, bajo un análisis respectivo a su pertinencia, denominación y sus ramas del conocimiento entre 1864 y 2022. Por medio de una búsqueda documental e historiográfica fueron conjuntamente analizados los programas de aprendizaje pertenecientes a la Escuela Normal Oficial de Pernambuco, además de leyes, actas, informes gubernamentales, revistas y noticias en periódicos de difusión amplia. La *Historia Natural* fue introducida en el currículo de la Escuela Normal en 1875. La *Biología* empezó a reducirse en la década de 1970, cuando fueron incorporados los contenidos de Física y de Química en una asignatura llamada *Ciencias Físicas y Biológicas*. En 2022, debido a su establecimiento como componente curricular de la Formación General Básica, la *Biología* tuvo una simplificación en sus contenidos con la implementación de la Nueva Enseñanza Media en Pernambuco.

**Palabras clave**: Historia de la Educatión. Escuela Normal. Formación del professorado.

## Introduction

The Normal School originated in France and was intended to train teachers for primary education (FUSARI; CORTESE, 1989). In Brazil, the first Normal School was established in Niterói, Rio de Janeiro, in 1835, and was directly linked to the standardization of elementary education and the establishment of primary school teachers (STAMATTO, 2020). At that time, in Pernambuco, there was already a growing concern about the training of teachers to meet the demands of public instruction.

In 1836, Provincial Law No. 14 authorized the hiring of a skilled teacher in the mutual teaching[2] method to establish a Normal School in Recife, where all individuals interested in pursuing a teaching career would be trained [3]. In 1839, the provincial president suggested the possibility of sending two capable and well-behaved young men to England to learn the method and practice of mutual teaching[4].

In 1855, Law No. 369 regulated public education in the province and established certain conditions for entering the teaching profession, such as proving legal adulthood, moral character, and professional competence[5]. For the latter, candidates were required to pass an oral and written examination covering school subjects and teaching methods. Through this process, teachers were selected for public education, albeit without any specific training. A formal teacher preparation course would only be instituted in the state nearly a decade later.

The Official Normal School of Pernambuco was founded in 1864 with the purpose of training teachers for public primary education. Initially, it operated in the Customs House building in the Recife neighborhood[6]. In 1893, it was relocated to the same building as the Ginásio Pernambucano, a secondary school established in 1855. In 1920, a new building was constructed for the school in Adolfo Cirne Square, opposite the Recife Law School. In September 1946, the Official Normal School was renamed the Pernambuco Institute of Education (IEP)[7]. In 1962, the IEP was transformed

[2] The Mutual Teaching Method was created by the English educator Joseph Lancaster at the end of the 18th century. Following a hierarchical structure, the teacher taught lessons to monitors, who were students with more advanced knowledge of the pedagogical content. These monitors were then divided into groups to teach the other students what they had learned (BASTOS, 1997).
[3] FBN: Provincial Laws. 1836. No. 14. *Diário de Pernambuco*, May 13, 1836, p. 1.
[4] CRL: Report presented to the Legislative Assembly of Pernambuco during the ordinary session of 1839 by His Excellency the President of the Province Francisco do Rêgo Barros. Pernambuco: Typographia de Santos & C.ª, 1839.
[5] APEJE: Provincial Law No. 369, May 14, 1855.
[6] CRL: Report with which His Excellency Commander Dr. Domingos de Souza Leão handed over the administration of the province to His Excellency the First Vice President, Judge Anselmo Francisco Peretti. Recife: *Typographia do Jornal do Recife*, 1864, p. 14.
[7] CEPE: Decree-Law No. 1,448, September 3, 1946. *Diário Oficial*, Recife, September 4, 1946, p. 3722.

into an educational complex and moved to a new building, where the Official Normal Course began operating under the Sylvio Rabelo School. This school provided teacher training until 2020, when it officially discontinued this program and was converted into a High School Reference School (EREM)[8]. Over its 156-year history, the Official Normal School served as a reference and operational model for all other normal schools in the state.

Considering its importance in the History of Education, few studies have explored the trajectory of the Official Normal School of Pernambuco. Vasconcelos (1979) presented the history of this institution and analyzed the decline in enrollment during the 1970s. Loureiro (2000) investigated the connection between the modern architecture of the IEP and educational processes. Silva (2005) examined the relationship between church and state, focusing on the secularization of public education and comparing the curriculum of the Normal School of Pernambuco before and after the 1891 Constitution. Peixoto (2006) highlighted the importance of this institution for women's inclusion in the teaching profession. Simões and Figueirôa (2018) discussed its trajectory through pedagogical, political, social, and economic transformations of the time. Figueirôa (2012) investigated physical activity practices in the memories of female students who attended the school between 1946 and 1955.

However, no research has been conducted to investigate the history of specific disciplines at the Official Normal School of Pernambuco. Mendes Sobrinho (1998), though, traced the trajectory of Natural Sciences disciplines in major Brazilian Normal Schools from 1835 to 1997. Broadly, the author found that teacher training was always linked to state policies, with curricula and programs centrally developed. In a more specific study, Santos (2014a) examined the presence of the disciplines Hygiene, Natural History, and Biology in the Normal School of the Federal District from 1904 to 1946, noting that Hygiene appeared in nearly all programs due to its specific role in preparing primary school teachers.

From the 19th century to the mid-20th century, the school subject Natural History comprised more descriptive branches such as Zoology, Botany, and Mineralogy, which were then considered the three kingdoms of nature. In the 1960s, Natural History was renamed Biology, incorporating updated components of modern science, such as Ecology, Genetics, and the Theory of Evolution (MARANDINO; SELLES; FERREIRA, 2009). According to these authors, while this new school discipline's configuration aligned more closely with developments in Biological Sciences, it should

[8] CEPE: Decree No. 48,811, May 16, 2020. *Diário Oficial do Estado de Pernambuco*, Recife, March 17, 2020, p. 3.

be interpreted in a way that acknowledges the specificities imposed by the school context. This modernization process, including the selection of certain knowledge for the school curriculum, should not be regarded as neutral, as it reflects power dynamics among social actors who deemed certain content more valuable for society (SANTOS, 2014b). Therefore, it becomes crucial to investigate patterns of stability and change in school disciplines, as they may result from conflicts within disciplinary communities and drive transformations that did not persist over time (GOODSON, 1997).

The study of the transformations of knowledge as it becomes a school subject does not follow a linear logical progression; rather, it results from a series of rules that take on specific characteristics in each social space and time period (SOUZA JÚNIOR; GALVÃO, 2005). Thus, the objective of this study was to investigate the trajectory of the school subject Natural History/Biology at the Official Normal School of Pernambuco, analyzing its presence, naming, and branches of knowledge from 1864 to 2022.

## Theoretical-Methodological Approach

This research is situated within the field of Curriculum Studies and the History of School Subjects, primarily anchored in the discussions established by Goodson (1995; 1997) and Chervel (1990). Adopting the perspective of critical theories, Goodson (1995) understands the curriculum as a cultural and political artifact through which both internal and external groups to the school contest and legitimize ideas and values.

According to Lopes and Macedo (2011), there is a tradition of understanding the curriculum as centered on school subjects, components generally conceived as simplified versions of academic knowledge. However, for Goodson (1997), school subjects are not simplifications of reference sciences but socio-historical constructs resulting from disputes and negotiations in the processes of selecting content, teaching methods, and educational objectives.

Chervel (1990) argues that a school subject combines expository teaching, exercises, practices that encourage and motivate study, and a set of tests, assessments, and exams that legitimize it, enabling us to view the school as a space for the production of knowledge. The formation of a school subject is also influenced by moments of stability and change, whether due to school reorganization, changes in the student body, teaching methods, or educational reforms (CHERVEL, 1990). Regarding

the latter, an important issue concerns their impacts, particularly the implications for changes in student demographics, teaching materials, and curricular organization (PINTO, 2014).

To understand the moments of stability and change in the school subject Natural History/Biology, this study employed a documentary and historiographic research methodology. According to Malheiros (2011), documentary research involves extracting information exclusively from documents that have not undergone scientific treatment or interpretations. Thus, in relation to research sources, the study adopted an expanded notion of a document, acknowledging that any trace from a given time period could be used (LUCHESE, 2014) to connect us to the context of its production (LE GOFF, 2013). Understanding the production and social context of a document directly influences its interpretation (PUNCH, 2021).

As the history of a school subject utilizes various documents, it is possible to reconstruct representations and outline a trajectory that highlights changes over time (PINTO, 2014). To this end, teaching programs from the Official Normal School of Pernambuco, laws, minutes, government reports, magazines, and articles from widely circulated newspapers were collectively analyzed.

These documents were sourced from the *Arquivo Público Estadual Jordão Emerenciano* (APEJE), the Historical Archive of the *Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira* (INEP), the State Public Library (BPE), the Education Center at UFPE (CE), the Pernambuco Publishing Company (CEPE), the State Council of Education (CEE), the State Department of Education (SEE), the Joaquim Nabuco Foundation (FUNDAJ), the National Library Foundation (FBN), and the Center for Research Libraries (CRL).

After cataloging all the documentation and organizing it chronologically, the facts were synthesized and interpreted, identifying trends and making inferences (SÁ-SILVA; ALMEIDA; GUINDANI, 2009). Each document was analyzed based on the research question, considering the dimensions of context, authors, reliability, text nature, and key concepts, as suggested by Cellard (2012).

The historiographic strategy allowed the construction of a narrative interspersed with notes and citations from the documents, correctly identified with their sources, ensuring both meaning and legitimacy (LUCHESE, 2014). In the results, the names of school subjects were italicized to distinguish them from the names of the reference sciences.

# The Subject *Natural History/Biology* at the Official Normal School of Pernambuco

## From the Absence of Natural History to Positivism at the End of the 19th Century (1864-1900)

Founded in 1864, the Official Normal School offered a set of courses[9] qto be completed in two years[10], which, to some extent, corresponded to the topics to be addressed in primary education. During its initial years of operation, there were no subjects related to *Natural History*. In the pedagogical field, the curriculum only included "known methods of primary teaching". According to Saviani (2009), at that time, Normal Schools were more concerned with ensuring mastery of the knowledge to be taught in early literacy schools than with providing didactic-pedagogical training.

In 1868, a new regulation extended the duration of the program to three years and, for the first time, introduced subjects in the Natural Sciences field, such as General Notions of Physics and Chemistry, Agriculture, and Surveying. However, no subjects related to Natural History were included[11]. s noted by Gonçalves-Filho (2016), the revised curriculum of this period deepened certain subjects and divided the program into two courses per year.

Starting in 1875, the curriculum became more diverse and included subjects with a scientific foundation. The regulation prescribed a course for the third year consisting of *Natural History*, *General Notions of Physiology and Domestic Medicine*, *Hygiene*, *First Aid*, and *Vaccination*[12]. he creation of a course associated with medical aspects was the most notable innovation in this curriculum structure (GONÇALVES-FILHO, 2016), particularly the inclusion of topics related to *Hygiene*. Although the course did not have a specific name, this marked the first time that knowledge from the field of *Natural History* was incorporated into the curriculum of the Normal School.

In 1879, the course structure was reorganized to include a subject titled Elements of Physical and Natural Sciences, Hygiene, and Agriculture[13]. Knowledge related to the Natural Sciences covered General Notions of Botany and Zoology and Agriculture[14] in the second year, as well as Notions of

[9] During the Imperial period, the term "chair" (*cadeira*) was closely associated with school practices. A *cadeira* referred to either the contractual arrangement of teachers or the set of topics the teacher was responsible for teaching (WERLE, 2008). Often, a teacher was hired for a specific *cadeira* (e.g., "1st chair"), which included a collection of subjects or school disciplines. In this study, the analyzed documents referred to *Natural History/Biology* as a *cadeira*, subject, or discipline.

[10] FBN: Regulamento interno da Escola Normal. *Diário de Pernambuco*, 19 de novembro de 1864, p. 1.

[11] APEJE: Regulations of the Normal School. Pernambuco: Pern. - Typ. de M. F. de F. & Filhos, 1868, p. 1-3.

[12] APEJE: Reorganization of Public Education in Pernambuco. Recife: Typ. de M. Figueirôa de F. & Filhos, 1874.

[13] APEJE: Regulations of the Normal School of Pernambuco, 1879, p. 1-2.

[14] BPE: Public Instruction. Report presented to the President of Pernambuco by João Barbalho Uchôa Cavalcanti. Recife: Typ. de Manoel Figueiroa de Faria & Filhos, 1879, pp. 251–254. According to this report, the Agriculture syllabus for the second year included: "elementary principles, knowledge of the soil, notions of agricultural chemistry, and the country's main crops." For the third year, it stated: "further development and continuation of the topics from the

Geology, Agriculture, and Hygiene in the third year. These topics were presented in a very elementary manner.

In 1887, the course was extended to four years, and a Natural Sciences chair was established. The knowledge was distributed as follows: General Notions of Geology and Mineralogy with Specimens on Display and Principles of Agriculture (2nd year); General Notions of Botany and Zoology (3rd year); and General Notions of Human Physiology and Hygiene (4th year)[15]. At this point, there was an increase in the Natural History content within the course's trajectory. However, despite this expansion, there was a predominance of theoretical lessons, and the practical component was compromised due to a lack of appropriate materials for demonstrations during the course[16].

In 1893, the Official Normal School began operating in the same building as the Ginásio Pernambucano, located on Rua da Aurora, then named the Instituto Benjamin Constant [17]. In this organization, the curriculum included the following subjects: Plants and Animals: Concrete Study (1st year); Minerals: Concrete Study. Notions of Physics (2nd year); and Introduction to Biology. Review of Plant and Animal Anatomy. Plant and Animal Physiology. Notions of Hygiene (4th year). Clearly, in the most recent reforms, scientific disciplines gained more prominence in the curriculum. This development supports the argument made by Mendes Sobrinho (1998), who asserted that by the late 19th century in Brazil, the Normal School had become a space for intense discussions of scientific ideas.

After the Proclamation of the Republic, Positivism[18] had a strong influence on Brazilian secondary education, with Physics and Chemistry contributing their methods of observation and experimentation to support Biology (LORENZ, 2008). The positivist conception was grounded in ideals of progress, modernization of societies, and the evolution of humanity through science (OLIVEIRA, 2014).

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second year." In the organization of the Normal Course, although associated with the field of Physical and Natural Sciences, *Agriculture* was not a descriptive study of plants but rather an approach focused on cultivation practices. Therefore, *Agriculture* cannot be considered a branch of knowledge within the school subject *Natural History*.

[15] APEJE: Regulation of the Normal School of Pernambuco issued on December 27, 1887, by His Excellency the President of the Province, Manoel Eufrazio Correia. Recife: Typ. de Manoel Figueiroa de Faria & Filhos, 1887, p. 3-4.

[16] BPE: *Public Instruction: Report presented to the President of the Province, Counselor José Fernandes da Costa Pereira Junior, on January 30, 1886, by the General Inspector João Barbalho Uchôa Cavalcanti.* Pernambuco: Typographia de Manoel Figueiroa de Farias & Filhos, 1886, p. 51.

[17] APEJE: *Organic Regulation of the Instituto Benjamin Constant created by His Excellency the Governor of the State, Dr. Alexandre José Barbosa Lima, by Decree of January 16, 1893.* Recife: Typ. de Manoel Figueirôa de Faria & Filhos, 1893, p. 3-4.

[18] The positivist philosophy was proposed in the 19th century by the French thinker Auguste Comte (1798–1857), who rejected the study of speculative topics and advocated for the scientific investigation of natural and social laws, a form of knowledge referred to as *positive* (SAMANIEGO, 1994).

In Pernambuco, among those responsible for public education, there was an optimistic belief that scientific education could establish a civilized standard similar to that of modern nations (PERES, 2006). In Normal Schools, regulatory changes influenced by Positivism led to the inclusion of scientific disciplines in their curricula, helping to dispel the limited notion that teacher training should focus solely on the knowledge taught in primary schools, where scientific content was not studied (MENDES SOBRINHO, 2014).

In Pernambuco, this perspective was reflected in the Organic Regulation of the Instituto Benjamin Constant, which mandated that the government acquire the necessary materials for a Physics Cabinet, a Chemistry Laboratory, and a Museum of Zoology, Botany, and Mineralogy, as well as a location for establishing a Botanical Garden[19]. This development strongly influenced the pedagogical practices in the Natural Sciences at the Normal School.

In 1895, students of the Normal School studied under the professors of the Instituto Benjamin Constant, attending classes at the Botanical Garden and the Natural History Museum. They also underwent practical examinations, conducted orally, on the classification of Zoology, Botany, and Mineralogy, using specimens as aids[20]. The relocation of the Normal School to the building of the *Instituto Benjamin Constant* established a higher and more organized standard for engaging with scientific content in the training of future teachers, especially when compared to the school structure and disciplines of 1879, for instance.

Thus, by the end of the 19th century, teaching at the Official Normal School of Pernambuco was grounded in a solid scientific foundation for future teachers. It included both theoretical and practical classes in *Natural History*, reflecting the positivist ideology of the period.

## The Peak of Natural History and the Rise of Hygiene (1900-1950)

At the beginning of the 20th century, although the contents of *Natural History* were fully integrated into the curriculum of the Normal School, they were consolidated into a single course in the third year, titled *Natural Sciences*:

> Elementary study of Plant and Animal Anatomy and Physiology. Plant and Animal Taxonomy using specimens. Geology: Knowledge of geological terrains, significant

[19] APEJE: Organic Regulation of the Instituto Benjamin Constant created by His Excellency the Governor of the State, Dr. Alexandre José Barbosa Lima, by Decree of January 16, 1893. Recife: Typ. de Manoel Figueirôa de Faria & Filhos, 1893, p. 4-5.
[20] APEJE: *Regulation of the Normal School issued by the Decree of August 30, 1895*. Typ. de Manoel Figueiroa de Faria & Filhos, 1895, p. 7.

> fossils, and rocks. Mineralogy: Notions of the most common minerals using specimens. Hygiene: General notions of hygiene related to housing, clothing, and particularly schools[21].

All this content had to be covered in one year within an institution that was now struggling with a lack of equipment such as maps, globes, and museum resources[22]. In 1917, the state governor authorized the repair and expansion of the materials in the Physics Cabinet, Chemistry Laboratory, and Natural History Museum at the *Ginásio Pernambucano*. At that time, most of these items were nearly unusable, having been in service for over 20 years[23], still relying on didactic objects acquired in the late 19th century. To address this issue, the government ordered new equipment from the store *Les Fils D'Émile Deyrolle* [24], in Paris, including geographic globes, zoological and botanical charts, small Physics cabinets, and Chemistry laboratory tools[25].

In the same year, the curriculum of the Normal School was revised, and the content of the Natural Sciences chair was reorganized into two years. It included knowledge of Zoology, Botany, Geology, and Hygiene, with a suggestion to use objects for demonstrative lessons[26]. The 1919 Natural Sciences syllabus maintained a structure similar to that of 1917 but organized the branches of knowledge into distinct school subjects: Botany, Zoology, and Geology (3rd grade)[27]; *Botany, Zoology, and Hygiene (4th grade*)[28]. By the end of this decade, there was more instructional time to engage with these subjects compared to the beginning of the 20th century.

In 1920, with the inauguration of the new building for the Normal School, a new structure for the program was introduced: General and Special Education (three years) and the Application Course (one year), with the branches of knowledge presented as distinct subjects. The curriculum was streamlined, and the subjects Botany, Zoology, and Geology were allocated exclusively to the second

[21] APEJE: Regulation for the Normal School, 1901, p. 5.
[22] CRL: Message from His Excellency Dr. Manoel Antônio Pereira Borba delivered at the opening of the 1st session of the 9th Legislature of the State Legislative Congress. Recife: Imprensa Official, 1916, p. 39.
[23] **CRL**: *Message from His Excellency Dr. Manoel Antônio Pereira Borba delivered at the opening of the 2nd session of the 9th Legislature of the State Legislative Congress on March 6, 1917.* Pernambuco: Typ. da Imprensa Official, 1917, p. 43.
[24] *Les Fils D'Émile Deyrolle:* A commercial house in Paris, France, established in 1831, specializing in taxidermy and the sale of collections for teaching Natural History. Its products have been distributed worldwide, and its marked objects can still be found in schools and museums (ALCÂNTARA, 2023).
[25] CRL: Message from His Excellency Dr. Manoel Antônio Pereira Borba delivered at the opening of the 2nd session of the 9th Legislature of the State Legislative Congress. Recife: Imprensa Officia, 1917, p. 43.
[26] APEJE: Regulation of the Normal School of Pernambuco, 1917, p. 9-10.
[27] APEJE: Teaching programs for the courses of the third grade. Pernambuco: Imprensa Official do Estado, 1920, 1920.
[28] APEJE: *Teaching programs for the courses of the fourth grade.* Pernambuco: Imprensa Official do Estado, 1920, 1920.

year, while Hygiene was placed in the third year. The 1921 regulation recommended that teaching should be practical and foster observational skills. To support this, the new building housed a small *Natural History* collection, as noted in a report by the school's director[29]. This allowed lessons to incorporate the use of specimens and mannequins. However, it highlighted the need for extended instructional time to fully engage in these activities.

In 1923, Act No. 588 extended the duration of training, establishing four years for the Normal Course and one year for the Application Course, and increased instructional time for scientific content, signaling a process of valuing this area of knowledge. The subjects Natural History and Hygiene featured an extensive syllabus and were to be covered in all years of the Normal Course[30]. This programmatic content was reiterated in the new regulation of 1926[31], further reinforcing the significance of *Natural History* and *Hygiene* within the curriculum.

Hygiene, which was incorporated into the Normal School curriculum in 1875, gained greater prominence during the administration of Governor Sérgio Loreto[32] (1923-1926). During this period, physician and professor Ulysses Pernambucano[33] was appointed as the director of the Normal School in 1923. He implemented extensive reforms and promoted hygiene and health practices, such as handwashing and avoiding the sharing of drinking cups (SELLARO, 2009). In 1923, physician Fernando Simões Barbosa[34] was hired to teach *Hygiene* at the Normal School. He took responsibility for organizing the syllabus and all practical aspects of the subject. For the Department of Health and Assistance, physician and professor Valdemar de Oliveira[35] was engaged to carry out various sanitary

[29] BPE: *Normal Education in Pernambuco*, 1923 a 1926. Recife, 1926.
[30] APEJE: Regulation of the Normal School of Pernambuco - Act No. 588 of October 18, 1923. Recife: Officinas Graphicas do Jornal do Commercio, 1923, p. 8-17.
[31] APEJE: *Regulation of the Normal School of Pernambuco - Act No. 809 of June 4, 1926*.
[32] Sérgio Loreto (1870–1937) served as the Governor of the State of Pernambuco from 1922 to 1926. During his administration, notable efforts were directed toward hygiene and public health, which were entrusted to his son-in-law, the young physician Amaury de Medeiros.
[33] Ulysses Pernambucano de Melo (1888–1937) was a physician who taught at the Recife Faculty of Medicine, the Ginásio Pernambucano, and the Official Normal School. He also served as the Director of Assistance to Psychopaths at Tamarineira, the Ginásio Pernambucano, and the Official Normal School of Pernambuco. During Sérgio Loreto's administration (1922–1926), he played a key role in the important educational reforms in Pernambuco (CAVALCANTI, 1986).
[34] Fernando Simões Barbosa (1881–1959) was a physician and professor of Hygiene at the Recife Faculty of Medicine (1920) and the Official Normal School of Pernambuco. He held the positions of Director of Centenário Hospital, Director of the Vacinogenic Institute, and Director of the Bacteriology Laboratory at the Public Health Department of Pernambuco.
[35] Valdemar de Oliveira (1900–1977) graduated from the Faculty of Medical Sciences of Bahia (1923) and later from the Faculty of Law of Recife (1929). He devoted himself to teaching, instructing at several schools, including the Ginásio Pernambucano (in the Complementary Course) and the Official Normal School, where he taught *Physical and Natural Sciences* and *Natural History* (1935–1952). He also taught at the Recife Faculty of Medicine and the Faculty of Philosophy of Pernambuco. Between 1928 and 1975, he wrote and published numerous textbooks on *Natural Sciences*, *Natural History*, and *Hygiene*.

initiatives. In addition, he published the book *Pontos de Hygiene*[36] in 1928, a textbook intended for Normal School students and prefaced by Fernando Simões Barbosa, who at the time was also a professor of *Hygiene* at the Recife Faculty of Medicine.

As noted, physicians were deeply involved in leading hygiene efforts in public and educational spaces. According to Peres (2006), during this period, the hygienist discourse became materialized through the leadership of those involved in educational institutions, such as faculty members at the Faculty of Law, Ginásio Pernambucano, and the Official Normal School. Bezerra (2010) states that school hygiene was extraordinarily prioritized during this time.

There was a network of sociability that directly influenced the trajectory of the Hygiene discipline at the Normal School. This claim was corroborated when observing the actions taken by Aníbal Bruno[37] during his tenure as the head of the Technical Education Directorate (1931–1937), where he emphasized hygienist issues by organizing Physical Education teaching practices in schools and creating a medical monitoring service through anthropometric records of students (SELLARO, 2009). This role was assumed by Valdemar de Oliveira[38].

According to Goodson (1997), it is important to understand the values and interests of certain social groups involved in the development and circulation of ideas related to the school curriculum. At that time, in Pernambuco, the medical profession and the State believed that by educating children in schools, we would also educate families about hygiene. It was believed that no one was better suited than teachers, especially female teachers, to care for students and their families. This clearly reflected the influence of the hygienist movement that expanded in Brazil during the 1920s and 1930s (PESSOA, 2023).

The importance of Natural History and Hygiene became even more evident when examining the 1929 regulation for Normal Education in Pernambuco. The course was divided into General Cycle (three years) and Professional Cycle (two years). Natural History would be present throughout the entire General Cycle, with Botany and Notions of Geology (1st year); Zoology (2nd year); and Human Anatomy and Physiology (3rd year). For the Professional Cycle, Hygiene, Child Hygiene and

[36] In 1933, the book Pontos de Hygiene was released in its second edition, maintaining the same purpose: to serve as a textbook for the school content intended for normalistas (students of Normal Schools). However, this edition included additions to align with the official curriculum. The 9th and final version of Hygiene and Puericulture was published in 1975.
[37] Aníbal Bruno (1889–1976) graduated in Medicine and Law, but devoted himself to an academic career, teaching at major institutions in Recife. He was a professor at the Recife Faculty of Law, Recife Faculty of Medicine, Ginásio Pernambucano, and the Official Normal School, among other schools.
[38] FUNDAJ: WO DPp3 cap 4 doc 22 a10g2.

Puericulture (1st year); and School Hygiene)[39] were included. In addition to highlighting the scientific subjects in the new regulation, the major innovation was the introduction of the *Human Anatomy and Physiology* discipline.

The introduction of this subject was a proposal by Antônio Carneiro Leão[40], who was invited by the governor to reform the education system in Pernambuco, which was carried out through Act No. 1,239 on December 27, 1928[41]. Guided by the *Escola Nova* movement (ARAÚJO, 2002), this reform aimed to reorganize all levels of education. However, there was a greater focus on the reorganization of the Official Normal School, as it was considered the model for teacher training (MEUCCI, 2007). In the rationale for the reform, Carneiro Leão justified the inclusion of the new discipline as a support for *Psychology* and *Pedagogy*, in addition to helping define professions[42].

In this context of changes, the subject *Human Anatomy and Physiology* was included in the 1930[43] regulation for the third year of the General Course, and a teacher[44]was appointed for it. Since it supposedly addressed elements of sex education, causing a real scandal in the conservative society of Pernambuco (CAVALCANTI, 1986; ARAÚJO, 2009; SELLARO, 2009), the subject was eventually abolished[45].

At that time, the Natural History subject featured an extensive curriculum concentrated in the third year of the course, covering lessons in Botany, Zoology, and Geology. It suggested an expository teaching strategy that included demonstrative practical lessons[46]. The *Hygiene* subject was divided into *General Hygiene* (3rd year) and *Hygiene and Puericulture* (4th year), and it recommended a teaching methodology using albums, collections of wall charts, and slide projections[47].

[39] APEJE: *Regulation of Normal Education in Pernambuco and Attached Courses. Act No. 238 of His Excellency Dr. Governor of the State, February 8, 1929.* Recife, 1929.
[40] Antônio Carneiro Leão (1887–1960) dedicated himself to Education and the *Escola Nova* movement. He served as the General Director of Education in Rio de Janeiro. In Pernambuco, he held the position of Secretary of Justice, Education, and the Interior, suggesting and initiating, in 1928, a major education reform based on the ideals of *Escola Nova*. (CAVALCANTI, 1986).
[41] APEJE: Organization of Education in the State of Pernambuco. Act No. 1239 of His Excellency the Governor of the State, December 27, 1928. Recife: Imp. Official, 1929.
[42] APEJE: Report presented to His Excellency the Secretary of Justice, in December 1928, by Dr. Antônio Carneiro Leão. Recife, 1928, p. 78.
[43] APEJE: Regulation of Normal Education. Act No. 173, February 26, 1930, of the Governor of the State. Recife: Imprensa Official., 1930.
[44] APEJE: Directorate of Normal Education, Official Letter No. 18, February 4, 1929.
[45] APEJE: Directorate of Normal Education, Official Letter No. 418, April 14, 1931.
[46] APEJE: *Directorate of Normal Education. Normal School of Pernambuco. Program of Natural History (3rd year of the General Course).* Recife: Imprensa Official, 1931.
[47] APEJE: *Directorate of Normal Education. Normal School of Pernambuco. Program of Hygiene (3rd and 4th years of the General Course).* Recife: Imprensa Official, 1931.

In 1932, *Natural History* was divided into a *Theoretical Course* (General Biology, *Human Anatomy and Physiology*, Zoology, Botany, Mineralogy, Geology) and a *Practical Course* (Experiments on animals, plants, and minerals). It is worth noting that the content of *Human Anatomy and Physiology*, now part of the *Natural History* subject, did not address aspects of human reproduction. This was not surprising, given the local society's aversion to the subject in 1930, as previously reported. The methodological approach included suggestions for activities such as observing didactic models and projected images, problem-solving, fieldwork, and making notes accompanied by drawings[48].

These contents and methodologies were designed to support the lesson planning for Natural Sciences classes for future female teachers, who would work with a curriculum based on Decroly's Centers of Interest[49]. This confluence of content and methods in the teaching of Natural Sciences was observed in Pernambuco in the late 1920s and early 1930s in magazines that promoted themes related to education through the Decrolyan method. The magazine A Pinto Junior published a lesson plan on blood circulation using anatomical models[50]. In the following issue, the magazine presented lesson plans on reptiles and another on roots, both explicitly based on the Decroly method [51]. The magazine A Nova Educação published an article on Natural Sciences and New Teaching Processes, emphasizing the importance of observation as a form of learning [52]. In the same magazine, there was also an article about the *Decroly Method*, a lesson plan for teaching Botany focused on the stem, and another proposal for teaching about fruits. This influence of the *Escola Nova* movement on scientific teaching became particularly evident, especially in the early 1930s.

During this period, the Francisco Campos Reform (BRASIL, 1931) established a Secondary Education system divided into two cycles: the *Fundamental* (five years) and the *Complementary* (two years). The study plan lost its humanist character and emphasized *Natural Sciences* (RIBEIRO, 2017). In this context, in 1933, the Official Normal School of Pernambuco restructured its curriculum and established a matrix composed of: *Secondary Course* (5 years) + *Teacher Training Course* (2

[48] APEJE: Directorate of Normal Education. Normal School of Pernambuco. Program of Natural History. Recife: Imprensa Official, 1932.
[49] Jean Ovide Decroly (1871–1932) was a Belgian physician who advocated for the Centers of Interest for school-age children, responding to their concerns and addressing the motivations of students. The process of acquiring knowledge through these Centers of Interest was structured in three phases: observation, association, and expression. Decroly's ideas became prominent in Brazil during the movement led by the *Manifesto dos Pioneiros da Educação Nova* (1932) (FERNANDES, 2017; BORGES et al., 2023).
[50] BPE: *Pinto Júnior." Revista de Educação e Ensino. Year I, No. 4, pp. 30–33, 1929.*
[51] BPE: *Pinto Júnior." Revista de Educação e Ensino. Year I, No. 5, pp. 30–35, 1929,* 1929.
[52] BPE: *A Nova Educação. Órgão Oficial da Sociedade Pernambucana de Educação. Year I, No. 1, pp. 13–14, 1931.*

years[53]. All the content for the *Natural History* subject in the *Secondary Course* at that time was aligned with the curriculum defined by the *Colégio Pedro II* (Rio de Janeiro), according to *Decree No. 19,890 of April 18, 1931*, and was organized as follows: *Botany*, *Zoology*, *Mineralogy*, and *Geology* (3rd year); *Botany*, *Zoology*, *Mineralogy*, and *Geology* (4th year); *Botany*, *Zoology*, *Mineralogy*, *Geology*, and *Earth History* (5th year) (VECHIA; LORENZ, 1998). The subject *Hygiene and Puericulture* would be offered in the 1st year of the *Teacher Training Course*.

As observed, the period between the 1920s and 1930s strongly influenced the trajectory of the Natural History and Hygiene subjects at the Official Normal School. These subjects reached their peak, as there was an extensive list of content associated with teaching methods grounded in the Escola Nova movement. Additionally, specific spaces were used for practical lessons, such as the Hygiene Museum, Physical and Natural Sciences Cabinet, a dedicated classroom for Natural History lessons, and an animal facility with birds and mammals, as recorded in the 1934 report[54]. This reinforced the status of these disciplines and their instructors.

In 1945, the *Hygiene and Puericulture* program was once again divided into two years of the *Pedagogical Course*: *General Hygiene* (1st year); *School Hygiene* and *Puericulture* (2nd year)[55]. Developed by the professor and physician Fernando Simões Barbosa, the subject's program was extensive and included the requirement for a practical course: Domestic Medicine and Puericulture. However, in the following year, a new law would establish many changes in the organization of the course.

*Decree-Law No. 1,448, of September 3, 1946*, changed the name of the Official Normal School of Pernambuco to the *Pernambuco Institute of Education* (IEP) and reorganized the *Second Cycle Normal Course*, prescribing the following subjects: *Human Anatomy and Physiology* (1st year); *Educational Biology* and *Hygiene and Sanitary Education* (2nd year); and *Hygiene and Puericulture* (3rd year)[56]. Officially, in the *Normal Course*, subjects such as *Botany*, *Zoology*, and *Mineralogy* would no longer be addressed, but *Human Anatomy and Physiology* would return, along with the inclusion of *Educational Biology*, which aimed to support the study of other disciplines, such as *Psychology* and *Sociology*, providing a broad view of life phenomena and the evolution of living beings (PINHEIRO, 1993). This subject was introduced into the curriculum of Normal Schools, justified by its practical usefulness for teaching professionals (VIVIANI, 2005).

[53] APEJE: *Regulation of the Normal School. Decree No. 189, May 11, 1933.* Recife: Imprensa Official, 1933.
[54] APEJE: Directorate of the Normal School of Pernambuco. Recife, September 27, 1934, p. 1-10.
[55] APEJE: Official Normal School. Program of Hygiene and Puericulture. Recife: Imprensa Official, 1945.
[56] CEPE: Decree-Law No. 1,448, of September 3, 1946. Recife: Diário Oficial, September 4, 1946, p. 3722.

In teacher training courses, Educational Biology evolved over the decades. Initially, its curriculum was related to the origin of life, the evolution of living beings, and genetics. Later, it incorporated themes such as eugenics, physical growth, the nervous system, the endocrine system, general and school hygiene (PINHEIRO, 1993). At the same time, this subject contributed to the construction of the discourses of educators tied to the hygienist ideas of the time (HORA, 2007).

The 1952 *Normal Education Regulation* included *General Biology* in the 1st year alongside *Human Anatomy and Physiology*. This inclusion was a step forward, as *Natural History* had lost ground in the 1946 reform. Despite some overlap in content, *Educational Biology*, *Hygiene and Sanitary Education* (2nd year), and *Hygiene and Puericulture* (3rd year)[57] were maintained in the course curriculum. These subjects helped elevate the level of training for future primary school teachers.

**Abbreviation of the School Subject Biology in Normal Education (1960-2022)**

Between 1958 and 1962, an educational complex with four new buildings was constructed in Recife to house the new composition of the IEP (Pernambuco Institute of Education), located between Avenida Mario Melo and Parque 13 de Maio (SOUSA; MOREIRA; SOUZA, 2021). The Official Normal Education then moved to the Escola Sylvio Rabelo. In the new building, the course had to adapt to the Lei de Diretrizes e Bases (LDB) of 1961, which altered the organization of education and granted states moderate flexibility to define their curricula (BRASIL, 1961).

In 1962, the Conselho Federal de Educação (Federal Council of Education) provided guidelines for the organization of the curricular frameworks for Ginasial and Colegial education. For the Colegial, the admissible variations included Physical and Biological Sciences or their breakdown into Physics, Chemistry, and Biology[58]. In Pernambuco, for the Normal Course, the subjects were organized as follows: Biology (1st year) and Hygiene and Puericulture (2nd year)[59]. Shortly after, the Resolution of the State Council of Education recommended Science (1st year) as a subject of General Culture, and Biology and Hygiene Applied to Education (2nd year) as a subject of Specific Training[60]. For this last category, *Didactics of Science* was introduced, helping to strengthen a technicist conception of the curriculum. In Brazil, this perspective was implemented in the course structure

[57] APEJE: *Regulation of Normal Education in the State of Pernambuco.* Recife: *Secretariat of State for Education and Culture*, 1952.
[58] CEE: Norms for Secondary Education. Documenta 1, 1962.
[59] CEE: Resolution No. 7, of March 19, 1964. Archives 2. Recife: CEE, 1964.
[60] EE: *Resolution No. 30, of November 12, 1964. Archives 4.* Recife: CEE, 1965.

through the training of female teachers at the *Normal School* in the field of teaching methodologies, with an emphasis on the practical application of teaching strategies:

> The *Brazilian-American Assistance Program for Elementary Education* (PABAEE), from 1957 to 1965 – resulting from an agreement between the Ministry of Education (MEC)/INEP and USAID – had as its primary goal the training of teachers at *Normal Schools* in teaching methodologies, based on psychology. This objective extended to the field of supervision and curriculum development, aiming to reach individuals in leadership positions who could have a broader, multiplying impac (TANURI, 2000, p. 78).

In Pernambuco, this technicist curriculum was established through the *First Training of Teachers for Normal Education in the Northeast*, an event held in 1967 at the *Regional Center for Educational Research* (CRPE) to train female teachers in *Methodology and Teaching Practice* for the Normal Schools in the region. The group responsible for the training consisted of faculty from the *IEP* (Pernambuco Institute of Education), former PABAEE scholarship recipients, and individuals trained at universities in the United States. During this event, among other subjects, the selected teachers received training in *Natural Sciences Methodology*, studying the scientific method, conducting observations and experiments, and participating in excursions to the *Northeast Science Teaching Center* (CECINE) at UFPE[61].

In addition to this curriculum shaped by a technicist perspective, there was also a reduction in the content of Biology, marking the beginning of a period of significant distortion that the Normal Course would undergo due to the legislation implemented in the early 1970s[62].

Starting in 1973, the Teacher Training Course at Escola Sylvio Rabelo in the IEP began offering General Education and Specialized Training at the 1st and 2nd grade levels. According to the Reform Project of the Pernambuco Institute of Education[63], the student was required to take Physical and Biological Sciences (1st year of General Education) and Health Programs (1st year of Specialized Training)[64], which replaced Hygiene and Puericulture in the curriculum.

[61] INEP: *Report of the First Training of Teachers for Normal Education in the Northeast.* Recife: SUDENE/INEP/CRPE, 1967
[62] During the Military Dictatorship period, Law 5.692/71 made vocational training compulsory and established numerous professional qualifications for secondary education courses (BRASIL, 1971). In this context, the Normal Course became a specific qualification for teaching grades 1 to 4, with a distorted teacher training that created a dichotomy between theory and practice (TANURI, 2000).
[63] FUNDAJ: *PERNAMBUCO: Reform Project of the Pernambuco Institute of Education.* Recife, 1973.
[64] The *LDB* (Law of Directives and Bases) of 1971, in its article 7, had already defined the mandatory inclusion of *Health Programs* in the curricula of primary and secondary education institutions (BRASIL, 1971).

According to *CFE Opinion No. 2.264/74*, health-related topics should be addressed in the curricula of secondary education courses for teacher training, among other degree programs. In Pernambuco, *Health Programs* was initially included as a school subject, and by the end of the 1970s, it was organized in a multidisciplinary manner as *Biology and Health Programs* (1st year of General Education).

Further emphasizing health issues in schools, in 1977, *Educational Biology* was reintroduced into the course curriculum (2nd year of *Specialized Professional Training*)[65]. The curricular proposal from the Secretariat of Education and Culture provided a justification for the inclusion of Educational Biology, stating the possibility of studying the biological causes that determine human development and behavior. It incorporated knowledge about human reproduction, genetics, nutrition, and infectious diseases[66]. Thus, in 1978, the course included *Biology and Health Programs* as a subject of *General Education*, and *Educational Biology* in *Specialized Professional Training*.

Resolution No. 6/86 of the Conselho Federal de Educação (Federal Council of Education) established a Common Core for primary and secondary schools and required the inclusion of Biology and Health Programs, among other subjects [67]. At this point, Educational Biology was removed from the course curriculum, reinforcing the decline of Biology in the Teacher Training Course and solidifying its presence only as a curricular component of the common core. By 1992, only Biology and Health Programs were prescribed (1st and 2nd year)[68]. However, this scenario would change at the end of the decade.

With the *LDB* of 1996 requiring higher education for those teaching grades 1 to 4 (BRASIL, 1996), the government of Pernambuco created the *Special Graduation Program in Pedagogy* (PROGRAPE) to support teachers with a secondary education background. Despite this alternative, the *Teacher Training Course* continued to be offered by the *Secretariat of State for Education*, now under the name *Normal Course at the Secondary Level* or simply *Normal Médio*.

[65] SEE: *PERNAMBUCO. Vocational Qualifications in the Tertiary Sector: Middle-Level Technicians.* Recife: SEC, 1977.
[66] CE: *PERNAMBUCO. Curricular Proposal for Secondary Education, Special Training: Qualification for Teaching Grades 1 to 4.* Recife: SEC, 1978.
[67] BRASIL. Resolution of the CFE No. 6/86, of November 26, 1986. Reformulates the common core for primary and secondary education (https://www.histedbr.fe.unicamp.br/pf-histedbr/resolucao_61986_reformula_o_nucleo_comum_para_os_-curriculos.pdf).
[68] SEE: *PERNAMBUCO. Carlos Maciel Collection: Subsidies for the Practical Pedagogical Organization in Schools.* Recife: SEE, 1992.

At that time, following the changes, the subject *Health Programs* was naturally abolished, as health-related issues were meant to be addressed in schools as a transversal theme. *Biology,* due to the *National High School Curriculum Guidelines* of 1998, became part of the school curriculum under the area of knowledge called *Sciences of Nature, Mathematics, and its Technologies*.

In 2002, for the Normal Course at the Secondary Level, the Secretariat of State for Education officially established Biology as part of an area called Sciences of Nature and Mathematics [69]. *Biology* was characterized as a broad and somewhat unspecific subject, making it difficult to organize teaching units. This shortened and superficial approach to the subject would hinder the development of any critical thinking or the opportunity to establish reflections on the impacts of *Science* on society, even though the syllabus intended to propose such a debate.

In 2006, the *Secretariat of State for Education* defined a curriculum matrix with a duration of four years, with *Biology* distributed in the 1st and 2nd years [70]. *Instructional Norm No. 01/2012* maintained *Biology* as a component of the *National Common Core* incorporated into the area of *Sciences of Nature, Mathematics, and its Technologies*, with two weekly lessons in the 1st and 2nd years and one lesson in the 3rd year[71].

In 2020, the *Secretariat of State for Education* did not offer enrollment for the *Normal High School Course* at *Escola Sylvio Rabelo*, quietly ending its history in the process of training primary school teachers[72]. For the other schools still offering the *Normal High School Course*, in 2022, the *Secretariat of Education and Sports of Pernambuco* established a curriculum with *Biology* distributed across the first three years of *Basic General Education*: 1st year (2 lessons), 2nd year (1 lesson), and 3rd year (1 lesson), following the same organization as the *New High School*.

Thus, comparing the current situation with the organization established in past decades, it can be stated that there has been a loss of space and status for the subject *Biology* throughout its trajectory in the *Normal Course* in Pernambuco.

[69] SEE: *PERNAMBUCO. Subsidies for the Development of the Competency Matrix by Areas of Knowledge*. Recife: SEC, 2002.
[70] SEE: *SEE: Normal High School Course: Principles and Conceptions for Teacher Training - Early Childhood Education and the Initial Years of Primary Education in the State of Pernambuco. Recife*: SEE, 2006.
[71] CEPE: Instrução Normativa n.º 01/2012. *Diário Oficial do Estado de Pernambuco*. Recife, 28 de fevereiro de 2012, p. 8-11.
[72] CEPE: *Decree No. 48,811, of May 16, 2020. Diário Oficial do Estado de Pernambuco*, Recife, March 17, 2020, p. 3.

## Final considerations

The knowledge in the field of *Natural History* was incorporated into the curriculum of the *Official Normal School of Pernambuco* in 1875, eleven years after its founding, organized into subjects and combined with content from other areas.

After the Proclamation of the Republic, influenced by *Positivism*, *Natural History* was elevated as a subject, and spaces for practical lessons were established, including a museum with collections of *Zoology*, *Botany*, and *Mineralogy*, as well as a *Botanical Garden*.

At the beginning of the 20th century, the leading elites, composed of medical educators, created extensive official programs and determined how the subjects should be taught. The content of *Natural History* was expanded and presented through extensive lessons in *Botany*, *Zoology*, and *Geology*. There was also an emphasis on teaching methods, influenced by the *Escola Nova* movement, suggesting activities such as observing didactic models, problem-solving, and field lessons. The subject reached its peak in the 1930s, providing a solid scientific foundation for understanding topics related to *Psychology* and *Sociology*. These subjects were supported by *Educational Biology*, a discipline introduced in the 1940s with the justification of assisting in professional teaching practice. It covered topics such as *Eugenics* and *School Hygiene*, which contributed to the construction of the hygienist discourses of the time.

In the 1960s, the *Normal School* adopted a curriculum with technicist characteristics, and the subject *Natural History*, now called *Biology* (and associated with *Hygiene*), lost ground in the new curriculum matrix. During this period, *Hygiene* was replaced by *Health Programs*, with outdated content being excluded and updated. After occupying a prestigious place in the curriculum of the *Normal Course* for decades, the *Biology* subject began a significant process of abbreviation.

In the 1990s, *Health Programs* were abolished, and their themes were gradually incorporated into *Biology*. At this point, *Biology* became part of an area of knowledge called *Sciences of Nature, Mathematics, and their Technologies*, with a propedeutic purpose.

In general, throughout its trajectory, the *Natural History/Biology* subject in the curriculum of the *Official Normal School of Pernambuco* was initially experienced through scientific knowledge framed under generic names, such as *chair* or *subject*. At the end of the 19th century, it was incorporated into the *Elements of Physical and Natural Sciences, Hygiene, and Agriculture* chair and later into *Natural Sciences*. Throughout the 20th century, its content was included in subjects named *Natural History*, *Educational Biology*, *General Biology*, *Physical and Biological Sciences*, and

*Biology*. Additionally, at certain times, some content was addressed as specific subjects, such as *Hygiene*, *Human Anatomy and Physiology*, and *Health Programs*.

Thus, *Natural History/Biology* was present in nearly the entire trajectory of the *Normal Course* in Pernambuco, undergoing changes in content and teaching methods, influenced by regulations, philosophical movements, educational renewal movements, educational reforms, and the interests of groups connected to the disciplinary community.

Based on the information organized in this research, two potential future study directions are suggested to further deepen the understanding of the trajectory of this school subject: 1) Analyze the influence of *Positivism* on the curriculum development of the *Official Normal School of Pernambuco* and investigate the arguments that emphasized this subject during the transition from the 19th to the 20th century. 2) Analyze the influence of the *Escola Nova* movement in Pernambuco on the changes made to the curriculum of the *Official Normal School of Pernambuco*, considering the sociability network formed around the *Natural History/Biology* school subject

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## References

ALCÂNTARA, W. R. Por terras e mares: os nós e os links do lucrativo mercado francês de objetos escolares (Século XIX-XX). **Revista Brasileira de História da Educação**, v. 23, e268, p. 1-33, 2023.

ARAÚJO, C. **A Escola Nova em Pernambuco**: educação e modernidade. Recife: Fundação de Cultura Cidade do Recife, 2002.

ARAÚJO, C. A Reforma Antônio Carneiro Leão no final dos anos de 1920. **Revista Brasileira de História da Educação**, v. 9, n. 1, p. 119-136, 2009.

BASTOS, M. H. C. A instrução pública e o ensino mútuo no Brasil: uma história pouco conhecida (1808-1827). **História da Educação**, v. 1, n.1, p. 115-133, 1997.

BEZERRA, R. **A Higiene escolar em Pernambuco**: espaços de construção e os discursos elaborados. Tese (Doutorado) - Programa de Pós-Graduação em Educação - USP, São Paulo, 2010.

BORGES, T. D. F. F.; OLIVEIRA, G. S.; SANTOS, A. O.; RIOS, A. V. S. F. Jean Ovide Decroly: os Centros de Interesse e a pedagogia da evolução ativa. **Revista Valore**, v. 8, e-8082, p. 1-17, 2023.

BRASIL. **Decreto n.º 19.890, de 18 de abril de 1931**. Dispõe sobre a organização do ensino secundário. Rio de Janeiro, Diário Oficial, 1931.

BRASIL. **Lei n.º 4.024, de 20 de dezembro de 1961**. Fixa as Diretrizes e Bases da Educação Nacional. Brasília, Diário Oficial, 1961.

BRASIL. **Lei n.º 5.692, de 11 de agosto de 1971**. Fixa as Diretrizes e Bases para o ensino de 1° e 2º graus, e dá outras providências. Brasília, Diário Oficial da União, 1971.

BRASIL. **Lei n.º 9394/96, de 20 de dezembro de 1996**. Estabelece as Diretrizes e Bases da Educação Nacional. Brasília, Diário Oficial da União, 1996.

CAVALCANTI, Z. M. **DEC**: a biografia de uma instituição cinquentenária. Recife: Secretaria de Educação e Cultura/ Departamento de Cultura, 1986.

CELLARD, A. A análise documental. In J. POUPART; J. P. DESLAURIERS; L. H. GROULX; A, LAPERRIÈRE; R. MAYER; A. PIRES (Orgs.). **A pesquisa qualitativa**: enfoques epistemológicos e metodológicos. Petrópolis (RJ): Vozes, 2012, p. 295-316.

CHERVEL, A. História das disciplinas escolares: reflexões sobre um campo de pesquisa. **Teoria e Educação**, n. 2, p. 177-229, 1990.

FERNANDES, J. C. B. Caderno de prática (1958): os Centros de Interesse. In: XV Seminário Temático Cadernos escolares de alunos e professores e a história da educação matemática, 1890-1990. **Anais...** Pelotas (RS): Universidade Federal de Pelotas, 2017.

FIGUEIRÔA, A. P. R. **O Instituto de Educação de Pernambuco na sua primeira década (1946 a 1955)**: em cena, as práticas das atividades físicas na memória das Normalistas. Dissertação (Mestrado) - Programa de Pós-Graduação em Educação - CE/ UFPE, Recife, 2012.

FUSARI, J. C.; CORTESE, M. P. Formação de professores a nível de 2º grau. **Cadernos de Pesquisa**, n. 68, p. 70-81, 1989. https://publicacoes.fcc.org.br/cp/article/view/1123

GONÇALVES-FILHO, C. A. P. **Escola de Primeiras Letras**: o ensino público primário em Pernambuco durante a segunda metade do século XIX. Tese (Doutorado) Programa de Pós-Graduação em História - CFCH/ UFPE, Recife, 2016.

GOODSON, I. F. **Currículo**: Teoria e História. Petrópolis: Vozes, 1995.

GOODSON, I. F. **A construção social do currículo**. Lisboa: Educa, 1997.

HORA, D. M. História da Disciplina Escolar, História do Currículo e Medicalização da prática escolar. In: G. GOUVÊA; C. BITTENCOURT; G. MARAFON; H. R. MONTEIRO (Orgs.). **Pesquisas em Educação**. Rio de Janeiro: 7letras, 2007, p. 49-58.

LE GOFF, J. **História e memória**. (7a ed.). Campinas (SP): UNICAMP, 2013.

LOPES, A. C.; MACEDO, E. **Teorias de currículo**. São Paulo: Cortez, 2011.

LORENZ, K. M. O Positivismo no ensino de ciências naturais na escola secundária brasileira: 1890-1900. In: 7 Congresso Luso-Brasileiro de História da Educação. **Anais...** Porto, Portugal, 2008.

LOUREIRO, C. **Classe, controle, encontro**: o espaço escolar. Tese (Doutorado) - Faculdade de Arquitetura e Urbanismo da USP, São Paulo, 2000.

LUCHESE, T. A. Modos de fazer história da educação: pensando a operação historiográfica em temas regionais. **História da Educação [online]**, v. 18, n. 43, p. 145-161, 2014. https://www.scielo.br/j/heduc/a/QYXgvgPRTCjP8cs7FZtz8bG/

MALHEIROS, B. T. **Metodologia da pesquisa em educação**. Rio de Janeiro: LTC, 2011.

MARANDINO, M.; SELLES, S. E.; FERREIRA, M. S. **Ensino de Biologia**: histórias e práticas em diferentes espaços educativos. São Paulo: Cortez, 2009.

MENDES SOBRINHO, J. A. C. **Ensino de Ciências e formação de professores**: na Escola Normal e no Curso de Magistério. Tese (Doutorado) - Programa de Pós-Graduação em Educação - CCE/ UFSC, Florianópolis, 1998.

MENDES SOBRINHO, J. A. S. O ensino de Ciências Naturais no currículo da escola normal: trajetória inicial. **Revista Faculdade Santo Agostinho**, v. 11, n. 3, p. 268-286, 2014.

MEUCCI, S. Entre a escola nova e a oligarquia: a institucionalização da sociologia na Escola Normal de Pernambuco (1929-1930). **Revista Cronos**, v. 8, n. 2, p. 451-474, 2007.

OLIVEIRA, S. S. **Implantação e organização do curso ginasial no sul do Mato Grosso**: expressões de um projeto de modernização (1917-1942). Tese. (Doutorado) - Programa de Pós-Graduação em Educação - CCHS/ UFMGS, Campo Grande, 2014.

PEIXOTO, F. M. **A escola normal oficial de Pernambuco**: a inserção das mulheres. Dissertação (Mestrado) - Programa de Pós-Graduação em Educação - CE/ UFPE, Recife, 2006.

PERES, P. C. A. **A emergência da profissão docente no espaço público estatal**: do mestre-escola ao professor público primário em Pernambuco. Dissertação (Mestrado) - Programa de Pós-Graduação em História - CFCH/ UFPE, Recife, 2006.

PESSOA, M. S. A. **Aníbal Bruno e a formação das professoras (1930-1937)**: continuidades e descontinuidades do ato n.º 1239. Tese (Doutorado) - Programa de Pós-Graduação em Educação - CE/ UFPE), Recife, 2023.

PINHEIRO, M. A Biologia Educacional e os Fundamentos da Educação: o caso do Paraná. **Cadernos de Pesquisa**, v. 85, p. 63-69, 1993.

PINTO, N. B. História das disciplinas escolares: reflexão sobre aspectos teórico-metodológicos de uma prática historiográfica. **Revista Diálogo Educacional**, v. 14, n. 41, p. 125-142, 2014.

PUNCH, K. F. **Introdução à pesquisa social**: abordagens quantitativas e qualitativas. Petrópolis (RJ): Vozes, 2021.

RIBEIRO, F. Instruções metodológicas estatais e direções ao professor nos livros didáticos voltados ao ensino secundário (1930-1960). **Revista História, histórias**, v. 5, n. 10, p. 40-60, 2017.

SAMANIEGO, L. E. Q. O positivismo e as ciências físico-matemáticas no Brasil. **Caderno Catarinense de Ensino de Física**, v. 11, n. 2, p. 105-114, 1994.

SANTOS, M. C. F. A Higiene, a História Natural e a Biologia na educação escolar: considerações sobre os conhecimentos nos programas de ensino da Escola Normal do Distrito Federal (1904-1946). In: XVI Encontro Regional de História da Anpuh-Rio: saberes e práticas científicas. **Anais...** Rio de Janeiro, p. 1-10, 2014a.

SANTOS, M. C. F. Conhecimento e disciplinas escolares: reflexões sobre a construção social do currículo na educação básica. **Dialogia**, n. 20, p. 75-84, 2014b.

SÁ-SILVA, J. R.; ALMEIDA, C. D.; GUINDANI, J. F. Pesquisa documental: pistas teóricas e metodológicas. **Revista Brasileira de História & Ciências Sociais**, v.1, n. 1, p. 1-15, 2009. https://periodicos.furg.br/rbhcs/article/view/10351

SAVIANI, D. Formação de professores: aspectos históricos e teóricos do problema no contexto brasileiro. **Revista Brasileira de Educação**, v. 14, n. 40, p. 143-155, 2009.

SELLARO, L. R. A. **Educação e Modernidade em Pernambuco**: inovações no ensino público (1929/1937). Recife: Editora Universitária da UFPE, 2009.

SILVA, A. C. A. **O espírito de (in)tolerância na república laica: um olhar na formação da(o)s aluna(o)s-mestres da Escola Normal de Pernambuco (1890-1915)**. Dissertação (Mestrado) - Programa de Pós-Graduação em Educação - CE/ UFPE, Recife, 2005.

SIMÕES, J. L.; FIGUEIRÔA, A. P. R. História e memória do Instituto de Educação de Pernambuco. **Revista Contrapontos - Eletrônica**, v. 18, n.3, p. 212-226, 2018.

SOUSA, L. M. L. S.; MOREIRA, F. D.; SOUZA, J. S. C. Instituto de Educação de Pernambuco (I.E.P.): desafios atuais e diretrizes para conservação. In: 14º Seminário Docomono Brasil. **Anais...** Belém (PA), 2021.

SOUZA JÚNIOR, M.; GALVÃO, A. M. O. História das disciplinas escolares e história da educação: algumas reflexões. **Educação e Pesquisa**, v. 31, n. 3, p. 391-408, 2005.

STAMATTO, M. I. S. Formação docente na província do Rio Grande do Norte: uma profissão sem curso. In: I. A. MENDES; M. I. S. STAMATTO (Orgs.). **Escolas Normais no Brasil**: espaços de (trans)formação docente e produção de saberes profissionais. São Paulo: Editora Livraria da Física, 2020, p. 27-48.

TANURI, L. M. "História da formação de professores". **Revista Brasileira de Educação**, n.14, p. 61-88, 2000.

VASCONCELOS, I. A. O Ensino Normal em Pernambuco - esboço histórico, problemática atual. **Tópicos Educacionais**, v. 1, n. 1, p. 123-136, 1979.

VEQUIA, A.; LORENZ, K. M. **Programa de ensino da escola secundária brasileira**: 1850-1951. Curitiba: Ed. do Autor, 1998.

VIVIANI, L. M. Formação de professoras e Escolas Normais paulistas: um estudo da disciplina Biologia educacional. **Educação e Pesquisa**, v. 31, n. 2, p. 201-213, 2005.

WERLE, F. O. C. Formação de professores para o ensino de primeiras letras na zona rural. Brasil, final do século XIX. **História da Educação**, v. 12, n. 24, p. 121-153, 2008.

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