

Coordination between Regulatory Organs and Schools in Special Education: The Figure of the Teacher Specialized in Curriculum

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Abstract

Teacher training in Brazil, particularly for Special Education, has evolved significantly since the late 19th century. Despite progress, challenges remain in adequately preparing Special Education teachers, highlighting the need for specialized training. This study employed a qualitative, historical, and documentary approach to examine the role of Curriculum Specialist Teachers (PECs) in São Paulo's Special Education. Document analysis focused on regulatory frameworks, guidelines, and policies to understand PECs' development and framework. Findings indicate substantial gaps in continuous training for Special Education teachers, emphasizing the necessity for a multidisciplinary and collaborative approach. Training often lacks continuity, failing to fully address the complexities of Special Education. Pedagogical Centers are identified as crucial for providing meaningful support and training for teachers. PECs play a vital role in connecting policy directives with classroom practices, aiming to enhance educational inclusivity and quality. The study highlights the urgent need for ongoing, targeted training for Special Education teachers and emphasizes the critical role of PECs in teacher support and policy implementation. Collaborative efforts between PECs and Pedagogical Management Coordinators are key to effective curriculum implementation and pedagogical oversight, leading to improved teaching quality and student outcomes.

Keywords: special education, document analysis, curriculum specialist teacher, pedagogical training, inclusive education, government policies

1. Introduction

This article examines the historical trajectory of the Curriculum Coordinating Professor (PEC) within the Special Education teaching modality of the São Paulo state education network. The topic encompasses research concerning the significance of this professional's coordinating role among the State Department of Education, Regional Education Directorates, regulatory bodies, and schools. The primary objective of this study is to delineate the profile and assess the relevance of this professional's performance, as established in official documents. Additionally, this analysis will consider the opportunities for skill and competency development that this training can afford for this professional.

1.1 Teacher Training

Initial teacher training pertains to the academic pursuit and preparatory activities undertaken by individuals aspiring to become educators. Historically, the trajectory of teacher training in Brazil, specifically for designated courses, commenced in the late 19th century with the establishment of Normal Schools aimed at rudimentary instruction. During that period, such training corresponded to the secondary level, subsequently evolving to encompass secondary education.

The educational framework underwent significant transformation with Law No. 5,692/71, which established guidelines and bases for primary and secondary education (Brasil, 1971), subsequently refined by Law No. 9,394/96, Articles 62 and 63—the Law of Guidelines and Bases of National Education (LDB) (Brasil, 1996). Following these legislative developments in the 20th century, teacher training is conducted via degree courses provided by public and private universities. These programs typically span four years and are designed to equip prospective teachers for roles across various educational levels and modalities. Complementary to degree courses are the Higher Education Institutes (ISEs), specialized teacher training institutions exclusively dedicated to basic education. These institutes provide pedagogical training for individuals holding degrees in other fields who aspire to enter the teaching profession (Conselho Nacional de Educação & Conselho Pleno, 2019).

Consequently, initial teacher training denotes the preparatory and qualification process for professionals intending to serve as educators within an educational network. This foundational training endows prospective teachers with the requisite skills and abilities for classroom instruction, fostering student development and striving to enhance teaching quality. It encompasses both the attainment of a degree in a specialized knowledge domain and the completion of pedagogy courses for those aiming to teach in early childhood education and the initial years of primary schooling (American Psychological Association, 1972). During this preparatory phase, future educators delve into pedagogical theories and practices, acquire knowledge across diverse subject areas they will teach, and cultivate essential teaching skills and competencies (Anderson, Gentile, & Buckley, 2007).

Moreover, initial teacher training incorporates supervised internships, providing students with practical classroom experience under the guidance of seasoned teachers. This collaboration between schools and universities establishes a dialogical experience, contributing to the constructive knowledge development of these individuals and facilitating an evaluative framework for both institutions, thereby reinforcing their autonomy. Historically, concerns regarding initial teacher training preparation emerged in 1820 with the establishment of the first teacher training schools (Gibbs & Huang, 1991).

Teacher training has been a long-standing subject of discussion, with questions regarding the importance of adequate teacher preparation persisting since the advent of educational systems. Concerns have been raised regarding the precariousness of special education teacher training and the effectiveness of teaching practices, noting their impact on special education students (Goleman, 2009). Challenges faced by universities in initial teacher training, specifically the dearth of demand for professionals adequately prepared and qualified for this specialized teaching practice, are also acknowledged. From this perspective, the emphasis on teacher training is fundamental to the formation of a teacher's identity (Beck & Sales, 2001).

By acquiring knowledge in pedagogical theories and curricular content, educators shape their cognitive and behavioral approaches in the classroom, fostering self-reflection on experiences and values, thereby contributing to their professional identity (Bernstein, 1965). This identity is also influenced by external factors such as educational policies, societal demands, and interactions with students and the wider school community. It is crucial to recognize that a teacher's identity is an ongoing construct, subject to continuous refinement and transformation throughout their teaching career.

Teacher training is characterized as: a) specialized and formalized; b) predominantly acquired at universities, culminating in a degree; c) pragmatic, oriented towards problem-solving; d) designed for a group capable of competent application; e) evaluated and self-managed by peer groups; f) necessitating improvisation and adaptation to novel situations through reflective processes; g) demanding continuous professional development to keep pace with evolving practices; and h) subject to the professional's own responsible application. Concurrently, the emergence of movements dedicated to teacher training is evident, with the responsibility for their continuity resting with the education systems, as stipulated by the LDB (Brasil, 1996), which includes a dedicated chapter for the special education teaching modality and specialized teacher training, in addition to Articles 62 and 63 pertaining to teacher training and performance (Brasil, 1996).

1.2 Specialized Teacher

The Pedagogy course originated in Brazil in 1939, with Decree-Law nº 1190/39 being implemented in the same year. At that time, no specific discipline focused on Special Education existed. Reports on teacher training indicate that the initial special education professionals in São Paulo emerged in the 1970s. These were teachers specialized in educating individuals with disabilities at the higher education level, through the qualification modality of the Pedagogy course, as mandated by Resolution No. 15/71 of the State Education Council (Conselho Estadual de Educação, 1971), in adherence to Opinion No. 252/69 of the Federal Education Council (Conselho Federal de Educação, 1969).

In the 1980s, in the state of São Paulo, qualifications in "Education for the Mentally Handicapped" and "Education for the Visually Impaired" were introduced in pedagogy courses at public universities. Only later, in the 1990s, based on national and international documents in favor of education for all, changes were established in the National Policy on Special Education from the Perspective of Inclusive Education. The issue of teacher training in Brazil was consequently awakened, and Pedagogy courses are undergoing a reformulation. The National Curricular Guidelines established by Resolution CNE/CP nº 1/2006 (Conselho Nacional de Educação & Conselho Pleno, 2006), define the curricular organization of Pedagogy courses.

However, what is still observed are policies and movements for the formation of professionals that meet the interests of national policies, with repercussions on other instances and spheres, whose curriculum provides superficial initial training when it comes to special education. This is due to the limited number of hours offered in the courses or their distance modality, with subjects that do not solidly include the knowledge of future teachers to face the demand in regular education, making knowledge in the modality difficult. Therefore, this situation reflects a focus on the performance and identity of this professional in the school field, which requires greater interventions from official bodies. Historically,

there have been changes and advances in relation to the Pedagogy course that trains this professional with consequences in the school field; however, the current reality still shows the importance of solid initial and ongoing training, lacking investment from central public bodies, transforming the knowledge of Pedagogy aimed at human emancipation for a new society.

1.3 Pedagogical Centers

These are spaces where meetings of pedagogical training actions take place and are disseminated to school institutions. Such spaces emerged in the São Paulo state network as a way of offering support and continued training to teachers. When referring to pedagogical centers, the current nomenclature indicates that such spaces were created in 1988, with pedagogical workshops. However, other names have already been given to this space, whose objective is effective as radiating poles for reflection on pedagogical actions and exchanges of experiences between teachers, being expanded after the LDB (Brasil, 1996).

In these spaces, teacher training actions are not so recent, having taken place since the 1960s and 1970s when the state of São Paulo implemented professional training programs in old school groups with the role of the teacher in the different moments of support for training and support for the state's education network. These spaces gained greater support visibility, in accordance with the interest of the public administrations of the State Department of Education (SEDUC/SP). From this perspective, the pedagogical nucleus plays a fundamental role within the scope of the decentralized actions of the education department. It is worth noting that its constitution complies with what is established in SEDUC Resolution 62/2022 (São Paulo, 2022a).

2. Method

In this section, we delineate our research methodology and positioning, provide a description of our document analysis method, and present an overview of the data. We also address issues related to research ethics.

2.1 Research Methodology and Positioning

A qualitative paradigm, incorporating a historical and documentary approach, guided this work. Qualitative research constitutes an investigative method focused on an in-depth understanding of phenomena, exploring their characteristics, meanings, and contexts. Within this paradigm, the researcher endeavors to interpret and assign meaning to collected data, accounting for the subjectivity and complexity inherent in the object of study.

For this study, the historical and documentary approach is fundamental. Historical research aims to comprehend the evolution of a phenomenon over time, analyzing its transformations and the influencing factors. Documentary research employs documents as primary data sources, seeking to extract relevant information and insights for understanding the object of study.

By integrating these approaches, we were able to trace the emergence trajectory of the curriculum specialist teacher (PEC) within the Special Education teaching modality. This involved identifying the regulatory frameworks and guiding documents that shaped this process. The analysis of these documents facilitated an understanding of the policies, guidelines, and concepts that directed the training and professional practice of this role over time. Furthermore, qualitative research with a historical and documentary approach enabled the contextualization of the phenomenon studied, considering the social, political, and cultural aspects that permeated the evolution of the PEC in the Special Education teaching modality. This perspective enhanced the comprehension of the research object, emphasizing its relationships with the historical context and societal transformations.

2.2 Method

The research method utilized is document analysis. Four types of documents, including regulatory frameworks, guiding documents, and relevant research, were analyzed through systematic reading and annotation of digital files.

2.3 Data

Eleven documents were examined, comprising 7 Resolutions, 2 Laws, 1 Deliberation, and 1 Decree, spanning from 1971 to 2022. The distribution of consulted documents and the data extracted from them are presented in Table 1

Table 1. Documents consulted and the data extracted. (2024)

LEGAL FRAMEWORK	ISSUING ENTITY	YEAR	LEGAL BASIS	PRELIMINARY	ARTICLE RELATED TO SPECIAL EDUCATION	ABOUT SPECIAL EDUCATION	DETAILS
CEE Deliberation 15/71 [11]	State Education Council	1971	Technical Report 252/69 of the Federal Education Council [12]	Sets the minimum content to be observed when organizing the Pedagogy Course	Art.12	Minimum curriculum of 2,200 hours for graduation and a complement of 1,100 hours for qualifications, the workload of which could be developed over variable periods of time, from three to seven years (2,200 hours) and from one and a half to four years (1,100 hours).	Qualification for Teaching in the pedagogical subjects of the Normal Course, at medium level, also called 2nd Degree Teaching, and one or another specialized qualification (1st and 2nd Degree School Administration, 1st and 2nd Degree School Supervision and Educational Guidance.
Law 5,692/71 [25] Repealed by Law 9,394/1996, except articles 6 to 9	National Education Council	1971	Law 4,024/1961; Decree-Law 1,044/1961.	Establishes Guidelines and Bases for teaching 1st and 2nd grades, and provides other measures	Art. 9	Art. 9 - Students who have physical or mental disabilities, those who are significantly behind their regular enrollment age and those who are gifted must receive special treatment, in accordance with the standards established by the competent Education Councils.	The City Councils will issue opinions and decide, privately and autonomously, the matters pertinent to them, with, when appropriate, appeal to the Full Council.
Law 9,394/1966 [2]	National Education Council - CNE	1996	Law 4,024/1961; Law 5,540/1968	Establishes the guidelines and bases for national education	Art. 58 Art. 59, III Art. 60	Teachers with appropriate specialization	They must be trained to integrate students with disabilities, autism spectrum disorder and high abilities/giftedness into common classes, life in society and the world of work.
Resolution 200/1983 [APUD 15]	State Secretariat for Education - Coordination of Studies and Pedagogical Standards - SECENP	1983	Complementary Law 201/78; Resolution SE 43/80; Resolution 87/83	Provides for the removal of monitors from the Regional Education Directorates (DREs) and Education Departments (DE)s	Art. 1, § 1º, I e 2, § 2º		It aims to train staff and improve teaching, training monitors to develop the implementation of 1st and 2nd degree curricula, together with regional and sub-regional bodies.

Table 1 (continued)							
Resolution CNE/CEB 2/2001 [23]	National Education Council – Chamber of Basic Education	2001	Law 4,024/1961; Law 9,131/1995; Law 9,394/1996; Technical Report CNE/CEB 17/2001	Establishes National Guidelines for Special Education in Basic Education	Art. 15 Art. 16 Art. 17	Art. 15 - The organization and operationalization of school curricula are the responsibility and responsibility of educational establishments, and their pedagogical projects must include the necessary provisions to meet the special educational needs of students, respected, in addition to the national curricular guidelines of all the stages and modalities of Basic Education, the standards of the respective education systems. Art.16 - Educational institutions are entitled, after exhausting the possibilities outlined in Articles 24 and 26 of the LDBEN, to enable students with severe mental or multiple disabilities, who do not present schooling results provided for in Section I of Article 32 of the same Law, to specific terminality of primary education, through certification of completion of schooling, with a school record that presents, in a descriptive way, the skills developed by the student, as well as the appropriate referral to youth and adult education and professional education. Art. 17. - In line	They address special and inclusive education in the context of basic and professional education, establishing guidelines for educational institutions to meet the special educational needs of students. Schools are responsible for organizing and operationalizing their curricula, including in their pedagogical projects the necessary provisions to serve these students, respecting national curricular guidelines and the standards of the education systems. In specific cases, it is possible to offer specific completion of primary education for students with severe mental or multiple disabilities, through certification of completion of schooling and referral to youth and adult education and vocational education. Furthermore, schools in regular professional education networks must promote conditions of accessibility, training of human resources, flexibility and adaptation of the curriculum, and referral to work, with the collaboration of the sector responsible for special education in the respective education system.

Table 1 (continued)						with the principles of inclusive education, schools in regular professional education networks, public and private, must serve students who have special educational needs, through the promotion of accessibility conditions, the training of human resources, the flexibility and adaptation of the curriculum and referral to work, counting, to this end, on the collaboration of the sector responsible for special education in the respective education system.	
Resolution CNE/CP 1/2006 [14]	National Education Council – Plenary Council	2006	Law 4,024/1961; Law 9,131/1995; Law 9,394/1996; Technical Report CNE/CP 5/2005; Technical Report CNE/CP 3/2006	National Curriculum Guidelines for Pedagogy Courses	Art. 1 Art. 2 Art. 4 Art. 5 Art. 6	This Resolution establishes National Curricular Guidelines for the Undergraduate Course in Pedagogy, licentiate degree, defining principles, teaching and learning conditions, procedures to be observed in their planning and evaluation, by the bodies of the education systems and higher education institutions in the country, under the terms explained in CNE/CP Opinions 5/2005 and 3/2006.	Teacher training for Early Childhood Education and the Early Years of Elementary School; of professionals for management educational and performance in school and non-school spaces; of teachers who will work in the educational and performance in school and non-school spaces; of teachers who will work in the Normal mid-level course; and professionals for other activities in the field educational. The role of the Curricular Team Coordinator will be performed by teachers holding a position or occupying a function-activity, who meet the requirements established in Annex I of Complementary Law No. 1,374, of March 30, 2022, in the following accordance: I – have a Full

Table 1 (continued)							<p>Degree; II – have at least 3 (three) years of teaching experience in the state education network or in educational policies. § 1 – Experience in educational policies means experience in: I – coordination and pedagogical advice in school and administrative units; II – school unit management; III – teaching or educational supervision; IV – mediation in the process of implementing curriculum, educational programs or continuing training in basic education. § 2 – Proof of experience in educational policy will be provided by presenting a declaration, on letterhead, from the institution where the corresponding service was provided and signed by the legal guardian. It relieves schools, as far as possible, from bureaucratic activities.</p>
State Decree of SP 57.141/2011 [24]	Legislative Assembly of the State of São Paulo - ALESP	2011	<p>Decree 7,510/1976; Decree 10.11/1977; Decree 16,995/1981; Decree 17,329/1981; Decree 18,412/1982; Decree 23,544/1985; Decree 26,583/1987; Decree 26,694/1987; Decree 26,969/1987; Decree 26,978/1987; Decree 26,996/1987; Decree 27,075/1987; Decree</p>	Reorganizes the Department of Education and takes related measures	Art. 10 Art. 73	<p>The following are part of the Basic Education Management Coordination: I - Technical Assistance from the Coordinator; II - Department of Curriculum Development and Basic Education Management, with: ... d) Specialized Service Center, with: 1. Specialized Pedagogical Support Center - CAPE; ...</p>	

Table 1 (continued)			28,088/1988; Decree 28,625/1988; Decree 30,511/1989; Decree 30,534/1989; Decree 30,557/1989; Decree 31,874/1990; Decree 31,906/1990; Decree 32,142/1990; Decree 33,918/1991; Decree 39,902/1995; Decree 40,042/1995; Decree 43,948/1999; Decree 44,749/2000; Decree 45,639/2001; Decree 46,576/2002; Decree 46,854/2002; Decree 47,126/2002; Decree 47,674/2003; Decree 47,777/2003; Decree 48,494/2004; Decree 48,583/2004; Decree 49,304/2004; Decree 49,620/2005; Decree 50,463/2006; Decree 50,918/2006; Decree 53,501/2008; Decree 54,949/2009; Decree 55,717/2010.				
Resolution CNE/CP 2/2019 [3]	Ministry of Education / National Education Council / Plenary Council	2019	Law 9,394/1996 (LDB); MEC Ordinance 2,167/2019	Defines the National Curricular Guidelines for the Initial Training of Teachers for Basic Education and establishes the Common National Base for the Initial Training of Teachers in Basic Education (BNC- Formação)	Art. 18, Chapter IV	Degrees specifically aimed at teaching in Special Education modalities must establish, for each stage of Basic Education, the appropriate pedagogical treatment, guided by the guidelines of the National Education Council (CNE)	When focused on teaching, specific knowledge and contextualized practices
SEDUC Resolution 62/2022 [16]	State Department of Education -	2022	National Education Guidelines and Bases Law	Provides for the functions of Curriculum Specialist	Art.1 Art.6	The role of Curriculum Team Coordinator and Curriculum	

Table 1 (continued)	SEDUC		9394/1996 + Law No. 16,279, of July 8, 2016 + Complementar y Law No. 1,374, of March 30, 2022	Teacher, Curricular Team Coordinator and provides related measures.		Specialist Teacher, in the Pedagogical Centers that make up the structure of the Teaching Directorates, will take place in accordance with the provisions of this resolution.	
SEDUC Resolution 60/2022 [30]	State Department of Education - SEDUC	2022	SEDUC Resolution 68/2012; SEDUC Resolution 46/2020	<i>Establishes the functions of Curriculum Specialist Teacher, Curricular Team Coordinator and provides related measures</i>	Artigo 6. § 1º, I	Article 6 – The Curriculum Specialist Teachers module will observe, exceptionally for the year 2022, what is contained in the Annex, which is part of this resolution, due to the number of professional trainers who are currently part of the staff of the Teaching Directorates. § 1 – The module, observing the maximum scope in each Teaching Directorate, must be distributed in the following accordance: I – 1 Specialist Teacher in Curriculum for Special Education;	Strengthening guidance and improvement actions in the classroom, a basic pillar for improving the quality of teaching; – conducting alternative solutions to problem situations and decisions for immediate intervention in learning, meeting students' needs, guiding and promoting the application of different school support mechanisms.
SEDUC Resolution 30/2023 [29]	Department of Education of the State of São Paulo	2023	SEDUC Resolution 62/2022	Provides for the module of Curriculum Specialist Teacher, Curricular Team Coordinator and provides related measures.	Art. 1	Maintenance of the Curriculum Specialist Teacher Module	The designation of Curriculum Specialist Teachers is subject to the prior assignment of classes or classes to the selected teacher.

2.4 Ethical Aspects

No human participants were involved in this research. The study entailed the analysis of publicly available legislation and related documents, which were openly accessible online. Consequently, no formal ethics application was required. However, ethical guidelines were observed. Specific ethical considerations included attention to trustworthiness, accurate reporting, beneficence, and prevention of harm. As researchers, we were able to share our analyses as a form of accountability. While we can highlight areas that lack visibility or clarity, we also recognize that the subject is complex and often specifically designed to allow for diverse interpretations. In this way, our choice of the hermeneutic perspective of meaning construction is relevant. Nevertheless, the results of our study must be treated with caution, and complexity must be included in the communication of our results. We acknowledge that drawing attention to the lack of explicit focus on the trajectory of the emergence of the curriculum specialist teacher (PEC) within the Special Education teaching modality could be interpreted negatively, yet our intention is to emphasize positive possibilities and the inclusion of alternative discourses.

3. Results

Resolution CNE/CP No. 2, of December 20, 2019 (Conselho Nacional de Educação & Conselho Pleno, 2019), Article 16, stipulates that the Special Education modality focused on teaching necessitates specific knowledge. However, in the professional trajectory, when addressing continuous training in the school environment, gaps in action are observed. Central multiplying bodies often propose abbreviated, segmented, and discontinuous training, disregarding the

complexity of the modality that requires articulation with various intersectoral support networks to facilitate a multidisciplinary pedagogical process. The LDB (Brasil, 1996), in Article 59, III, establishes that adequately specialized teachers are those qualified to integrate students with disabilities, autism spectrum disorder, and high abilities/giftedness into common classes, into societal life, and into the world of work.

Still in this context, over the years, teachers can be seen carrying out their actions in an individualized way, meeting the requirements of filling out documents, transforming them into lonely, insecure and often confused professionals within the scope of special education and inclusive, which in addition to the diversity of different demands, also encounters organizational changes that contribute to a precarious and fragile performance for educational survival, all of this resulting in a professional unqualified to provide collaborative teaching with a focus on real learning for everyone. In this way, the specific knowledge of this professional is often improved with individualistic courses so that his performance as a specialized teacher promotes the articulation between the Specialized Educational Service (AEE) and the regular classroom in a truly collaborative way, trying to guarantee the necessary support for the student. From this perspective, implementing practices in a concrete way for the network is essential for these professionals to feel prepared and confident with solid and meaningful training and, above all, to hear the needs to carry out this task, as stated in Resolution CNE/CEB No. 2 of 2001, Article 18 (Conselho Nacional de Educação & Câmara de Educação Básica, 2001).

The Pedagogical Centers are offered by the teaching directorates within them, in accordance with the State Decree of SP 57,141, of July 18, 2011, Article 73 (São Paulo (Estado), 2011). These centers serve as support units for the management of the curriculum of the state public education network, preferably operating through pedagogical workshops, in conjunction with the Teaching Supervision Teams, with the following responsibilities: I - implement pedagogical and educational support actions that guide teachers in conducting procedures related to the organization and functioning of the curriculum in teaching modalities; II - guide teachers: a) in implementing the curriculum; b) in the use of teaching and para-teaching materials; III - evaluate the execution of the curriculum and propose the necessary adjustments; IV - monitor and guide teachers in the classroom, when necessary, to ensure the implementation of the curriculum; V - implement and monitor educational programs and projects of the Secretariat relating to their own area of activity; VI - identify needs and propose continuing training actions for teachers and coordinating teachers within the scope of their own area of activity; VII - participate in the implementation of continuing training programs, in conjunction with the Teacher Training and Improvement School; VIII - monitor and support pedagogical meetings held in schools; IX - promote meetings, work workshops, study groups and other activities to publicize and train teachers in the use of pedagogical materials in each subject; X - participate in the process of preparing the Education Board's work plan; XI - prepare the Center's work plan to improve teaching performance and student performance; XII - guide, in conjunction with the Specialized Service Center, of the Department of Curricular Development and Basic Education Management, special education and educational inclusion activities within the scope of their own area of activity; XIII - monitor the work of teachers in their subjects and the teaching methodologies used in the classroom to evaluate and propose actions to improve performance in each subject; XIV - organize the collection of teaching materials and equipment; XV - analyze the results of internal and external evaluations and propose measures to improve basic education indicators, within the scope of their own area of activity for the management of state schools in each region, aiming to promote reflection on pedagogical practices, share experiences, identify needs and propose, among its responsibilities, actions to compose new teaching strategies covering a variety of themes, such as educational inclusion, technologies in education, assessment, among others, allowing the exchange of experiences and the improvement of educational practices.

3.1 Emergence of the Curriculum Specialist Teacher (PEC)

The current Curriculum Specialist Teacher (PEC) is the professional responsible for coordinating between the São Paulo State Department of Education (SEDUC), the Regional Education Directorate (DRE), and schools. Each teacher in a specific area or project is designated by the regional director, in accordance with current legislation, such as SEDUC Resolution (São Paulo (Estado). Secretaria de Educação, 2022a). This professional is reassigned from their school to perform their role in the pedagogical nucleus of the teaching board.

Historically, in the 1960s, training and qualification programs were conducted unsystematically in the former teaching inspectorates. With the enactment of Law 5,692/71 (Brasil, 1971), changes in job positions for specialist teachers began. These teachers in the state of São Paulo were referred to as subject monitor teachers, a role regulated by Resolution 200/1983 (São Paulo (Estado). Secretaria de Educação. Coordenação de Estudos e Normas Pedagógicas, 1983). Subsequently, in 1987, pedagogical workshops were implemented, engaging teachers at various organizational levels.

Over time, and in response to governmental interests and needs, nomenclatures evolved. Professionals working in Pedagogical Centers have held various designations, including Pedagogical Technical Assistant (ATP), Pedagogical Workshop Coordinating Professor (PCOP), Pedagogical Center Coordinating Professors (PCNP), and currently, under

SEDUC Resolution 62/2022 (São Paulo (Estado). Secretaria de Educação, 2022a), they are known as Curriculum Specialist Teachers (PEC).

The number of specialized teachers is determined by the modules corresponding to each teaching directorate, in accordance with SEDUC Resolution 30/2023 (São Paulo (Estado). Secretaria de Educação, 2023), which outlines related measures. Thus, the presence of specialist teachers holds a highly significant and challenging role within the education network in supporting teacher training, a role that has evolved over time.

3.2 Role of the Curriculum Specialist Teacher (PEC) in Teaching Directorates

Given that expertise constitutes a core function of the PEC in pedagogical centers, their performance is essential for mediating actions among SEDUC, Education Directorates, and schools. In this regard, the implementation of the state's educational policies for teacher training legislatively assigns responsibilities to this role, addressing the demands of the state education network in developing pedagogical practices within the school curriculum. Therefore, legal provisions serve to support the work of the education network.

A PEC in the Education Directorate is currently responsible for: I – Implementing pedagogical and educational support actions that guide teachers in carrying out procedures related to the organization and functioning of the curriculum in teaching modalities; II – guiding the Pedagogical Management Coordinators: a) in implementing the curriculum; b) in the use of teaching and para-teaching materials; III – monitoring and evaluating the execution of the curriculum from the perspective of principles and pedagogical foundations for the student's integral development; IV – monitoring and guiding the Pedagogical Management Coordinators who, in turn, train teachers in the classroom, when necessary, to guarantee the implementation of the curriculum; V – implementing and monitoring educational programs and projects of the Secretariat relating to their own area of activity; VI – identifying needs and proposing continuing training actions for teachers and Pedagogical Management Coordinators within their own area of activity; VII – participating in the implementation of continuing training programs, in conjunction with the “Paulo Renato Costa Souza” School of Training and Improvement of Education Professionals of the State of São Paulo; VIII – supporting, with subsidies, pedagogical meetings held in schools, according to the topic to be worked on by the teaching team; IX – promoting meetings, workshops, study groups and other activities to disseminate and train teachers in the use of pedagogical materials in each curricular component, area of knowledge and interdisciplinarity; X – participating in the process of preparing the Education Board's work plan; XI – preparing the Center's work plan to improve learning in schools, based on the needs identified in visits to schools, in the analysis of indicators of evaluation results, in the reports of the Pedagogical Management Coordinators and SEDUC guidelines; XII – guiding, in conjunction with the Department of Educational Modalities and Specialized Service – DEMOD, special education and educational inclusion activities within the scope of their own area of activity; XIII – monitoring the work of the Pedagogical Management Coordinators, in the exercise of their duties, and in guiding the teaching methodologies used in the classroom to evaluate and propose actions to improve performance in each component; XIV – organizing the collection of teaching materials and equipment; XV – analyzing the results of internal and external evaluations and proposing measures to improve basic education indicators, within the scope of their own area of activity; XVI – coordinating with the Pedagogical Coordination, and with schools, the implementation of the Portfolio Projects for recovery, reinforcement and deepening; XVII – participating together with Supervisors in the training pedagogical monitoring developed by the SEDUC team; and XIX – other activities related to the responsibilities of the Pedagogical Center, as directed by the Curricular Team Coordinator (São Paulo (Estado). Secretaria de Educação, 2022b).

The table below provides an overview of the documents analyzed and the key data extracted from each:

Table 2. Overview of the documents analyzed and the key data extracted from each. (2024)

DOCUMENT TYPE	REFERENCES	YEAR	KEY INSIGHTS
Resolutions	[3,14,16,23,29,30]	2001, 2006, 2019, 2022, 2023	Detailed the evolving guidelines for PEC roles and training
Laws	[2,25]	1966, 1971	Established legal frameworks for Special Education
Deliberation	[11]	1971	Set early standards for Special Education teacher training
Decree	[24]	2011	Implemented specific regulations for Special Education

Source: Author.

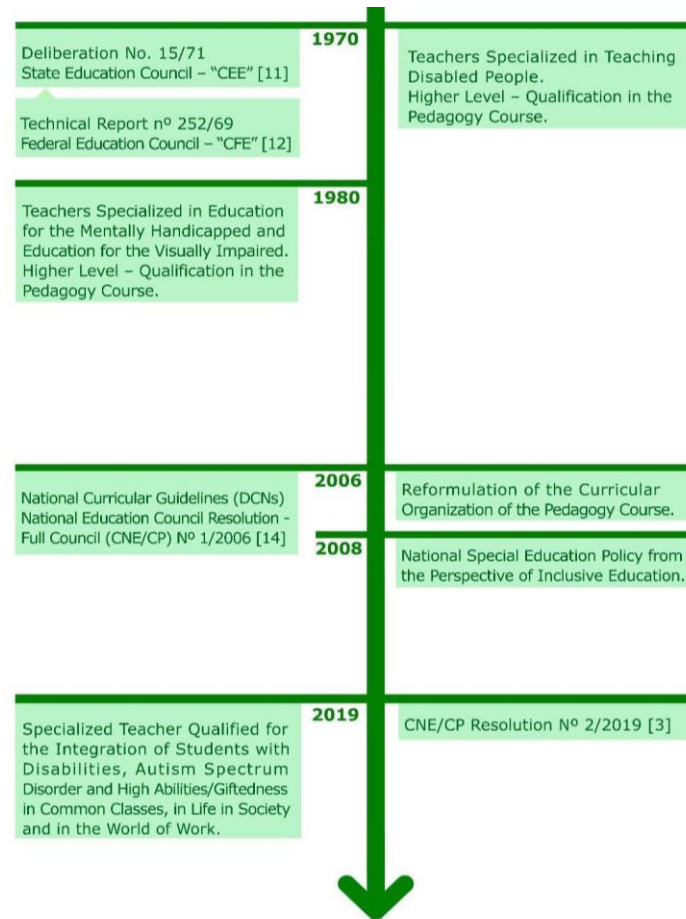


Figure 1. Summay of the historical evolution of the curriculum specialist teacher (2024)

Source: Author.

4. Discussion

The presented data highlight the importance of continued training and adequate support for teachers working in special education, as well as the need for a multidisciplinary and collaborative approach to meet the demands of students with disabilities, autism spectrum disorder, and high abilities/giftedness. Even though Resolution CNE/CP No. 2/2019 (Conselho Nacional de Educação & Conselho Pleno, 2019) already recognizes the need for specific knowledge for teaching in the Special Education modality, the data point to gaps in the continued training offered by central multiplier bodies, which often propose abbreviated, segmented, and non-continuous training. This approach disregards the complexity of special education, which requires articulation with different intersectoral support networks to contemplate a multidisciplinary pedagogical process (Bjork, 1989).

Recent studies reinforce the importance of continuous training for special education teachers, highlighting that such training must be based on the real needs of teachers, considering the challenges faced in daily school life and promoting reflection on pedagogical practice (Mellers, 2000). Furthermore, training must be continuous and systematic, allowing for the deepening of knowledge and the development of specific skills for working in special education (Klimoski & Palmer, 1993).

The data also show that special education teachers often feel isolated, insecure, and confused in the face of organizational changes and the diverse demands of students (Gilbert et al., 2004). This reality can contribute to precarious and fragile performance, compromising the quality of teaching and student learning. In this context, it is essential that special education teachers receive solid and meaningful training, which prepares them to act collaboratively and promote coordination between Specialized Educational Services (AEE) and the regular classroom. Resolution CNE/CEB No. 2/2001 (Conselho Nacional de Educação & Câmara de Educação Básica, 2001), in its Article 18, has already reinforced the importance of listening to teachers' needs and offering adequate support to carry out their tasks.

The Pedagogical Centers, offered by teaching directorates, emerge as a strategy to support curriculum management and promote the continuous training of teachers (Postman, 1979). These centers have diverse responsibilities, such as guiding

teachers in implementing the curriculum, identifying training needs, promoting meetings and workshops, and coordinating special education and educational inclusion actions. Pedagogical Centers play an important role in the continuous training of special education teachers, as these training spaces must be based on reflection on practice, sharing of experiences, and the collective construction of knowledge (Postman, 1985). Furthermore, Pedagogical Centers can contribute to the coordination between the different professionals involved in special education, promoting a multidisciplinary and collaborative approach (Guignon, 1998).

Thus, the need to invest in the continuous training of special education teachers is evident, offering adequate support, spaces for reflection and exchange of experiences, and promoting a multidisciplinary and collaborative approach (McLuhan, 1970a). Pedagogical Centers have emerged as a promising strategy to meet these demands, contributing to improving the quality of teaching and learning for students with disabilities, autism spectrum disorder, and high abilities/giftedness (McLuhan, 1970b).

By presenting the historical evolution of the role of the Curriculum Specialist Teacher (PEC) in the São Paulo state education network, highlighting their duties and the importance of their role in the coordination between the São Paulo State Department of Education (SEDUC), the Regional Education Directorates (DREs), and schools, we aim to corroborate its relevance in implementing educational policies and supporting teachers. The PEC plays a fundamental role in the continuous training of teachers, acting as a link between the SEDUC guidelines and pedagogical practice in schools, emphasizing that the PEC's performance contributes to improving the quality of teaching by guiding teachers in the implementation of the curriculum and the use of teaching and para-teaching materials (Cress, 2009).

Another aspect to be considered is the importance of continuous training for the professional development of teachers, which must be based on the real needs of teachers, considering the challenges faced in daily school life (Driedger, 1998). In this context, the PEC assumes a central role in identifying training demands and proposing continuous training actions, as provided for in its responsibilities. The evolution of the nomenclatures attributed to professionals who work in Pedagogical Centers over time, reflecting changes in educational policies and the demands of the education network, highlights the need for adaptation and constant updating of the role of the PEC in order to meet the emerging needs of education (Kubrick, 1980).

Resolution SEDUC 60/2022 (São Paulo, 2022b) establishes the current responsibilities of the PEC, covering a wide range of duties, from the implementation of pedagogical support actions to the analysis of evaluation results and the proposition of measures to improve educational indicators. These attributions reinforce the importance of the PEC in articulating the different levels of the education network and supporting teachers (MacIntyre, 2002). Collaborative work between the PEC and the schools' Pedagogical Management Coordinators is relevant. This partnership is fundamental for the effective implementation of the curriculum and for monitoring pedagogical practices in the classroom. The joint action of the PEC and the Pedagogical Management Coordinators contributes to improving student learning and strengthening the teaching team (Semenak, 1995).

Therefore, the data presented highlight the importance of the Curriculum Specialist Teacher (PEC) in the São Paulo state education network, emphasizing their role in articulating the different levels of the network, supporting teachers, and implementing educational policies. Current evidence reinforces the need for continuous training based on the real demands of teachers and collaborative work between the PEC and Pedagogical Management Coordinators to improve the quality of teaching and student learning (São Paulo, 2011).

It is important to note that the articulation between public policies and educational practice is a complex topic, subject to variation across national and educational system contexts. Typically, this articulation involves multiple stakeholders, including governmental agencies, education departments, school administrators, and educators themselves, which complicates international comparative analyses. While specific actors responsible for coordinating government policies with special education schools and teachers may vary internationally, certain points of consensus exist regarding inclusive special education. These include: 1. The paramount importance of collaboration among diverse stakeholders, such as government, schools, teachers, and the community, for the successful implementation of inclusive special education. Such collaboration is vital to ensure policies are effectively translated into practice. 2. The crucial role of higher education institutions in preparing teachers for inclusive special education, with universities and colleges of education responsible for equipping future educators with the necessary skills and knowledge to address the diverse needs of students in inclusive environments. 3. The significance of ongoing support and professional development for current teachers to enable them to navigate the challenges of inclusive education, implying a responsibility of schools and education systems to provide such training opportunities and support.

It is necessary to consider the importance of continuing teacher training and how PECs contribute to this process, offering pedagogical support, curricular guidance, and promoting the exchange of experiences among teachers, as well as the

challenges faced by PECs, such as the need for specific training to act in this role and coordination with the different actors in the educational system (São Paulo, 2023). There is still much to be studied.

The dynamics of governmental interests appear to consistently prioritize immediate concerns, impeding the consolidation of necessary directions, as evidenced by recent changes in the nomenclature and attributions for PECs. These professionals are now designated as Curriculum Specialist Teachers dedicated to School Pedagogical Monitoring (PEC Monitoramento) and Curriculum Specialist Teachers with priority dedication to Educational Platforms (PEC Plataforma), capable of acting in both capacities (São Paulo, 1983). There remains extensive scope for research regarding the continuous training of special education teachers and the role of PECs in this process, particularly considering the ongoing challenges and the imperative for coordination among various educational system stakeholders.

5. Conclusions

Continuous training and adequate support for teachers working in special education are fundamental, as is the need for a multidisciplinary and collaborative approach to meet student demands.

There are still gaps in the continuous training offered by central multiplier bodies, which often propose abbreviated, segmented, and discontinuous training.

Pedagogical Centers are a promising strategy to support curriculum management and promote the continuous training of teachers, contributing to improving the quality of teaching and learning for students with disabilities, autism spectrum disorder, and high abilities/giftedness.

The Curriculum Specialist Teacher (PEC) plays a fundamental role in the continuous training of teachers, acting as a link between the guidelines of the São Paulo State Department of Education (SEDUC) and pedagogical practice in schools, thereby contributing to the improvement of teaching quality.

The evolution of the nomenclatures attributed to professionals who work in Pedagogical Centers over time highlights the need for adaptation and constant updating of the role of the PEC, in order to meet the emerging needs of education.

In the international scenario, the articulation between public policies and educational practice in special education varies according to the context of each country or educational system, making direct comparison with the Brazilian context difficult.

The dynamics of governmental interests consistently appear to be at the forefront, hindering the consolidation of the paths to be followed in special education, as evidenced by the change in the nomenclature and attributions of the PECs during the preparation of the present study.

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References

- American Psychological Association. (1972). Ethical standards of psychologists. American Psychological Association.
- Anderson, C. A., Gentile, D. A., & Buckley, K. E. (2007). *Violent video game effects on children and adolescents: Theory, research and public policy*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195309836.001.0001>
- Beck, C. A. J., & Sales, B. D. (2001). *Family mediation: Facts, myths, and future prospects*. American Psychological Association. <https://doi.org/10.1037/10401-000>
- Bernstein, T. M. (1965). *The careful writer: A modern guide to English usage* (2nd ed.). Atheneum.
- Bjork, R. A. (1989). Retrieval inhibition as an adaptive mechanism in human memory. In H. L. Roediger III & F. I. M. Craik (Eds.), *Varieties of memory & consciousness* (pp. 309-330). Erlbaum.
- Brasil. Lei nº 5.692, de 11 de agosto de 1971. Fixa as diretrizes e bases do ensino de 1º e 2º graus, e dá outras providências. Diário Oficial da União, Brasília, DF, 12 ago. 1971.
- Brasil. Lei nº 9.394, de 20 de dezembro de 1996. Estabelece as diretrizes e bases da educação nacional. Diário Oficial da União, Brasília, DF, 23 dez. 1996.
- Conselho Estadual de Educação. (1971). Deliberação CEE nº 15/71. Estabelece o conteúdo mínimo a ser observado na organização do Curso de Pedagogia.
- Conselho Federal de Educação. (1969). Parecer CFE nº 252/69.
- Conselho Nacional de Educação (CNE) & Câmara de Educação Básica (CEB). (2001). Resolução CNE/CEB nº 2, de 11 de setembro de 2001. Institui as Diretrizes Nacionais para a Educação Especial na Educação Básica.
- Conselho Nacional de Educação (CNE) & Conselho Pleno (CP). (2006). Resolução CNE/CP nº 1, de 15 de maio de 2006. Institui as Diretrizes Curriculares Nacionais para o Curso de Graduação em Pedagogia, licenciatura.
- Conselho Nacional de Educação (CNE) & Conselho Pleno (CP). (2019). Resolução CNE/CP nº 2, de 20 de dezembro de 2019. Define as Diretrizes Curriculares Nacionais para a Formação Inicial de Professores para a Educação Básica e institui a Base Nacional Comum para a Formação Inicial de Professores da Educação Básica (BNC-Formação).
- Cress, C. M. (2009). *Curricular strategies for student success and engaged learning [PowerPoint slides]*. Vermont Campus Compact. www.vtcampuscompact.org
- Driedger, S. D. (1998, April 20). After divorce. *Maclean's*, 111(16), 38-43.
- Gibbs, J. T., & Huang, L. N. (Eds.). (1991). *Children of color: Psychological interventions with minority youth*. Jossey-Bass.
- Gilbert, D. G., McClernon, J. F., Rabinovich, N. E., Sugai, C., Plath, L. C., Asgaard, G., & Botros, N. (2004). Effects of quitting smoking on EEG activation and attention last for more than 31 days and are more severe with stress, dependence, DRD2 A 1 allele, and depressive traits. *Nicotine and Tobacco Research*, 6(3), 249-267. <https://doi.org/10.1080/14622200410001676305>
- Goleman, D. (2009). What makes a leader? In D. Demers (Ed.), *AHSC 230: Interpersonal communication and relationships* (pp. 47-56). Concordia University Bookstore. (Reprinted from Harvard Business Review, 76(6), 93-102, 1998).
- Guignon, C. B. (1998). Existentialism. In E. Craig (Ed.), *Routledge encyclopedia of philosophy* (Vol. 3, pp. 493-502). Routledge.
- Klimoski, R., & Palmer, S. (1993). The ADA and the hiring process in organizations. *Consulting Psychology Journal: Practice and Research*, 45(2), 10-36. <https://doi.org/10.1037/1061-4087.45.2.10>
- Kubrick, S. (Director). (1980). *The Shining [Filme]*. Warner Brothers.
- MacIntyre, L. (Reporter). (2002, January 23). Scandal of the Century. In H. Cashore (Producer), *The fifth estate* [Série de TV, episódio]. Canadian Broadcasting Corporation.
- McLuhan, M. (1970a). Culture is our business. McGraw-Hill.

- McLuhan, M. (1970b). *From cliché to archetype*. Viking Press.
- Mellers, B. A. (2000). Choice and the relative pleasure of consequences. *Psychological Bulletin*, 126(6), 910-924. <https://doi.org/10.1037/0033-2909.126.6.910>
- Postman, N. (1979). *Teaching as a conserving activity*. Delacorte Press.
- Postman, N. (1985). *Amusing ourselves to death: Public discourse in the age of show business*. Viking.
- São Paulo (Estado). (2011). Decreto Estadual nº 57.141, de 18 de julho de 2011. Reorganiza a Secretaria da Educação e dá providências correlatas.
- São Paulo (Estado). Secretaria de Educação. (2022a). Resolução SEDUC nº 62, de 10 de agosto de 2022. Dispõe sobre as funções de Professor Especialista em Currículo, Coordenador de Equipe Curricular e dá providências correlatas.
- São Paulo (Estado). Secretaria de Educação. (2022b). Resolução SEDUC nº 60, de 05 de agosto de 2022. Estabelece as funções de Professor Especialista em Currículo, Coordenador de Equipe Curricular e dá providências correlatas.
- São Paulo (Estado). Secretaria de Educação. (2023). Resolução SEDUC nº 30, de 11 de março de 2023. Dispõe sobre o módulo de Professor Especialista em Currículo, Coordenador de Equipe Curricular e dá providências correlatas.
- São Paulo (Estado). Secretaria de Educação. Coordenação de Estudos e Normas Pedagógicas. (1983). Resolução nº 200/1983. Dispõe sobre o afastamento de monitores das Diretorias Regionais de Ensino (DREs) e Departamentos de Ensino (DEs).
- Semenak, S. (1995, December 28). *Feeling right at home: Government residence eschews traditional rules*. *Montreal Gazette*, p. A4.