

## Institutionalization of Distance Education in the Federal Network of Professional, Scientific and Technological Education

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**Abstract:** The objective of this article is to examine the process of institutionalization of Distance Education (EaD) within the Federal Network of Professional and Technological Education (RFEPCT). Through documentary research and quantitative and qualitative data analysis, the results indicate a notable expansion of this initiative in the context of challenges such as the need for sustainable financing and the redefinition of evaluation indicators. However, it is evident that further efforts, both structural and normative, are still required for its consolidation.

**Keywords:** Distance Education; Institutionalization; Professional Education.



## **Institucionalização da EaD na Rede Federal de Educação Profissional, Científica e Tecnológica**

**Resumo:** Este artigo visa discutir a institucionalização da Educação a Distância (EaD) na Rede Federal de Educação Profissional e Tecnológica (RFEPCT). Por meio de uma pesquisa documental e pela análise de dados quanti-qualitativa, os resultados indicam crescimento expressivo desse movimento frente aos desafios, como o financiamento sustentável e a redefinição de indicadores de avaliação. Contudo, ainda são necessários esforços, tanto estruturais quanto normativos, para sua consolidação.

**Palavras-chave:** Educação a Distância; Institucionalização; Educação Profissional

## **Institucionalización de la Educación a Distancia en la Red Federal de Educación Profesional, Científica y Tecnológica**

**Resumen:** El objetivo de este artículo es debatir sobre la institucionalización de la Educación a Distancia (EAD) en la Red Federal de Educación Profesional y Tecnológica (RFEPCT). A través de la investigación documental y el análisis cuantitativo y cualitativo de datos, se observó un crecimiento significativo de este movimiento frente a desafíos como la financiación sostenible y la redefinición de los indicadores de evaluación. No obstante, aún son necesarios esfuerzos tanto estructurales como normativos para consolidarlo.

**Palabras clave:** Educación a Distancia; Institucionalización; Educación Profesional.

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## 1 INTRODUCTION

Distance Education (EaD, as it is called in Brazil) can currently be considered a transformative response to the demands for inclusive and flexible access to education. The trajectory of EaD in the Federal Network of Professional, Scientific and Technological Education (RFEPCT) can be traced back to the mid-2000s when initiatives such as the Open University of Brazil (UAB) (Brasil, 2006) and the e-Tec Brazil Network (e-Tec) (Brasil, 2011) were designed to address the challenges of educational access in remote and disadvantaged urban regions. However, as of 2014, these programs have experienced a notable reduction in resources, which has impacted the provision of distance courses by public institutions throughout the country. In contrast, the National Education Plan (PNE), approved that same year by Law no. 13.005/2014 (Brasil, 2014), established guidelines, goals, and strategies for educational policy. Many of these would be challenging to achieve without the distance modality.

Some institutions recognized the necessity of initiating a process of "institutionalizing EaD" to ensure the continuity of distance education courses and to facilitate the integration of technology in in-person courses, even in the absence of external funding or when funding was reduced. As Battestin *et al.* (2018) note, actions in this direction were initiated and produced a significant positive impact on many institutions, which also experienced difficulties from 2014 onwards, primarily due to a lack of investment. The advent of the SARS-CoV-2 pandemic in 2020 also precipitated a significant surge in the popularity of distance education, as social isolation measures necessitated the transition to remote instruction. At that time, it became evident that the institutions that had already achieved a certain level of institutionalization experienced a less traumatic process when implementing academic measures, training professionals and students, and utilizing digital information and communication technologies.

As reported by the Nilo Peçanha Platform (Brasil, 2024b), in 2023, approximately 800 thousand enrollments in distance education courses were registered at RFEPCT, representing 46% of the approximately 1.7 million enrollments that year. Another noteworthy observation is that, over time, RFEPCT has considerably expanded the scope of its distance education offerings, eschewing reliance on external funding to support them. Distance education has evolved from a supplementary

approach to a hybrid educational approach. This illustrates the necessity for policies and actions aimed at further reinforcing the institutionalization of the modality within the Federal Network, which has been assuming a pioneering role in offering robust, well-established, and socially referenced distance education.

The path toward the institutionalization of distance education is a process that demands significant effort and investment from the institution and the government. It also presents several challenges, including the need for continuous training of the team, the implementation of robust technological support systems and digital infrastructure, the standardization of the distribution of teaching hours, the development of specific methodologies for the distance modality in a context without external funding, the creation of new sustainable financing models, the structuring of distance education management centers, and the establishment of indicators, among others.

Since 2010, the RFEPCT has undertaken a series of initiatives aimed at institutionalizing EaD. These have been carried out through the establishment of specific working groups (GT) by the National Council of Institutions of the Federal Network of Professional, Scientific and Technological Education (Conif), as well as through representation in other working groups, including the Secretariat of Professional and Technological Education (Setec), the Coordination of Superior Level Staff Improvement (CAPES), and the Secretariat of Higher Education (Sesu). The history of the actions of these working groups is presented in the RFEPCT Distance Education Guidelines e-book, specifically in the Historical module (Battestin; Zamberlan, 2019a). A brief overview of this history is provided in section 2 of this article. Additional significant actions and outcomes are detailed in the Structural Module (Battestin; Zamberlan, 2019b), the 2021-2022 Actions Module (Battestin *et al.*, 2023), and various reports, articles published in events and journals, and on the EaD GT channel on YouTube. A summary of these actions is presented in Section 3.

The work carried out by the various groups of the Conif Distance Education Working Groups and the materials they have produced have served as a foundation for the RFEPCT institutions to advance in the process of institutionalizing distance education. This is evidenced by the surveys conducted, which aim to understand the institutionalization of distance education in the RFEPCT. Section 4 presents a summary of the surveys conducted by the Distance Education Working Group in 2016, 2018, 2021, and 2023.

However, there is still a lot to be done in terms of institutionalizing distance education. Recent changes in standards, legislation and even some institutional and governmental positions are not

always in the same direction as needs, bringing new challenges.

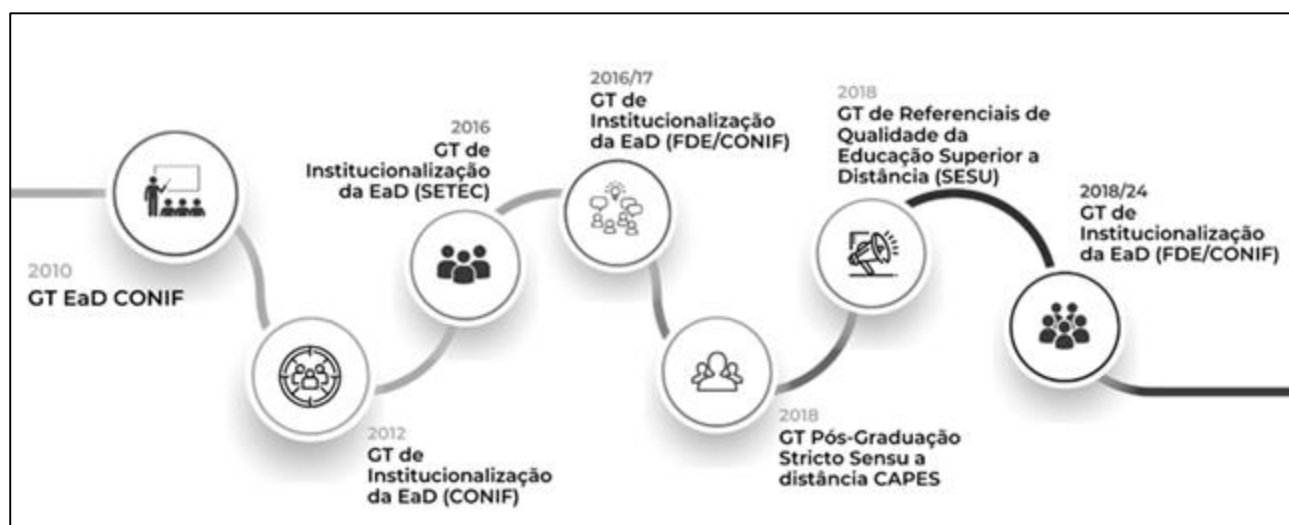
The aim of this article is to present and discuss the institutionalization of distance education in the Federal EPCT Network, as well as the necessary actions, concerns, limitations and vision for the future. To this end, documentary research was used, with regard to the actions of CONFIC's EaD Working Group, and quantitative and qualitative data analysis, relating to the surveys carried out by the same Working Group, as explained in section 4.

## 2 HISTORY OF THE INSTITUTIONALIZATION OF EaD AT RFEPCT

The organization of EaD, as well as the emergence of UAB in 2006, represent stages preceding the establishment of the Federal Institutes in 2008. Therefore, there is a persistent necessity for direction and oversight for RFEPCT institutions to facilitate advancement in the structuring and consolidation of distance education, particularly in the process of institutionalization (Battestin; Zamberlan, 2019a).

In this regard, the EaD GTs (Figure 1) have made many significant contributions since their inaugural formation in 2010. In 2019, the WG published an e-book entitled "Guidelines for Distance Education of the Federal Network of Professional and Technological Education: Historical Module," which presented an overview of the outcomes achieved, thereby consolidating the principal findings from these reports (Battestin; Zamberlan, 2019a).

**Figure 1** – Main Distance Education Working Groups of Conif or in which they have participated



Source : EaD

FED/Conif Institutionalization Working Group

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(2018/2019).

The establishment of the Distance Education Working Group by Conif in 2010 represented a pivotal moment in the advancement of RFEPCT education in Brazil. The group was coordinated by Dr. Denio Rebello Arantes, who was then serving as rector of the Federal Institute of Espírito Santo (IFES). It was composed of a multidisciplinary team of experts from several Federal Institutes. The principal objective was to develop a reference document that would serve as a guide for distance education practices in federal institutes, addressing a range of topics, including organizational models and the technological resources required for the effective implementation of distance learning.

In 2012, a Working Group for the Institutionalization of Distance Education was established within the Forum of Education Directors (FDE) of Conif. This Working Group developed a proposal for an organizational structure comprising Distance Education Campuses in all Federal Institutes. The document was approved by Conif, but it was not approved by Setec, which is part of the Ministry of Education. From 2013 to 2015, there was a period of inactivity concerning collective discussions on the institutionalization of distance education, except for specific debates related to UAB or the e-Tec Brazil system. In 2016, under the direction of Director Luciano de Oliveira Toledo, Setec reinitiated the discourse surrounding the institutionalization of Distance Education. This involved the formation of a Working Group dedicated to this topic, which also requested a review of the budget matrix in collaboration with Forplan/Conif.

However, the continuity of the discussions was abruptly terminated due to a significant political change in the country, which resulted in the removal of the president and subsequent changes in the leadership positions of the Ministry of Education and Setec. Despite this scenario, the work of the original Working Group proved to be a valuable foundation for the subsequent formation of a new group by Fde/Conif, which operated between 2016 and 2017, thereby continuing the efforts to enhance distance education in Brazil.

The EaD GT, which operated between 2016 and 2017, sought to present reflections and guidelines for the consolidation of EaD in the RFEPCT. The GT, comprising representatives from various institutions within the network, was initially coordinated by Ana Alves Neta and Vanessa Battestin. It devised a work plan, which was subsequently approved by Conif, and surveyed the institutionalization of EaD in the Federal Network. Based on the findings of the aforementioned survey, the GT proceeded to establish a procedure for the preparation of each proposal. This procedure

entailed consultations with FDE and Conif, in addition to collaborations with other pertinent forums when necessary. The proposals addressed some key issues, including teaching hours, the budget matrix, indicators, and the structuring of EaD management centers, which will be discussed in greater detail in the following section.

Over the years, the Conif Distance Education GT has undergone several reconstitutions. However, it has represented a significant movement towards the expansion and strengthening of this educational modality, with the main objective of developing a set of guidelines that would guide the implementation and consolidation of distance education at RFEPCT.

Between 2018 and 2020, the following work was carried out: A new portrait of the institutionalization of distance education at RFEPCT was created, as was an analysis of distance education legislation, which had undergone many changes during the period. Additionally, the e-books "Guidelines for Distance Education of the Federal EPT Network," comprising modules on History, Structure, and Legislation, were created. Furthermore, teaching materials were collected to combat the effects of the global pandemic on the EPCT Network, with these materials available in the ProEdu repository in the form of PPT and PDF files, as well as on the GT of EaD channel on YouTube, an e-book entitled "Guide to good practices in producing video lectures" was also produced.

In 2021 and 2022, the EaD GT prepared a new Portrait of the Institutionalization of EaD; carried out work on training paths and recordings of the series "Education in times of pandemic and post-pandemic", together with Unirede and Setec; carried out a first work related to the promotion of hybrid education; worked on a proposal for an EaD campus and on the modification of Regulation 713, under the request of Conif; and worked with Unirede on the planning and implementation of Virtual Student Academic Mobility.

Between 2023 and the present, the working group has carried out a new survey of the portrait of the institutionalization of distance education in the federal network of EPCT, the analysis of which is ongoing; prepared the e-book "Guidelines for Distance Education in the Federal Network of EPT - Actions Module 2021-2022"; held meetings and responded to requests from Setec, such as a new proposal for the amendment of Ordinance 713 and typologies and requirements for changing typology; continued collaboration with Unirede in the development of the Virtual Student Academic Mobility Program, among others.

Members of the Conif Distance Education Working Group have also participated in other

working groups in the country. Between 2016 and 2017, members participated in the working group coordinated by DED/Capes, which produced the document "References for the Institutionalization Process of Distance Education in the UAB System". In 2018, they participated in another Working Group coordinated by Capes, which produced the report that was the basis for the creation of the Regulation for Distance Education in Stricto Sensu Postgraduate Programs. In 2018, they participated in the Working Group on Quality References for Distance Education, coordinated by SESU, whose work was interrupted after a change of government.

The work carried out by the Conif EaD GT and the materials they produced have served as a basis for advancing the process of institutionalizing EaD at RFEPCT, as evidenced, for example, by the significant increase in EaD enrollments (which grew by 213% between 2017 and 2021). Some of the main results are discussed in the next section.

### **3 RESULTS OF THE EaD WORKING GROUP**

The results achieved over the last few years do not only represent the efforts of the institutions individually, but also of the GTs over the years, as can be seen:

#### **3.1 Regulation and initial structuring of distance education in the Federal Network**

In its first action, the Conif Distance Education Working Group drafted a proposal for the regulation of distance education for federal institutes in 2010 (Conselho [...], 2010). The document, although incipient, dealt with the structuring of distance education, the regulation of teaching activities, and the use of technologies, to improve the quality and expand the modality. It provided for the creation of Distance Education Centers on campuses to integrate courses from the e-Tec Network and UAB, in addition to institutionalized courses, aiming at educational inclusion and promoting partnerships between institutions to offer courses in different locations (Battestin; Zamberlan, 2019b). This pioneering initiative had a positive impact on Brazilian educational policy, leading to the inclusion of specific resources for this modality in the Conif budget matrix. The approved proposal allocated 25% of the financial resources for regular students to distance education students.

In 2012, the GT developed a new proposal to strengthen Distance Education (Conselho [...], 2012), through the creation of Distance Education Campuses and Distance Education Centers on campuses. The proposal, which was approved by Conif, aimed to expand access to education but faced obstacles at Setec due to financial implications. Although not



implemented, it details objectives, structure, attributions, and resources and is valuable for understanding distance education in Brazil. (Battestin; Zamberlan, 2019b).

### 3.2 Regulation of teaching activities in distance education subjects

In 2016, at the request of Conif, the EaD GT, together with representatives of several federal educational institutions, drafted a proposal to regulate teaching activities in distance education courses, in order to compose the specific part referred to in the Setec Regulation No. 17, of 2016 (Brazil, 2016). It includes the planning and production of materials, also in the semester prior to the first offering of the course; the role of the tutor is replaced by the activity of pedagogical mediation, which can be performed by the same or another teacher; a workload for this activity is proposed, equivalent to the class workload of the course, and also that it should be taken into account in the calculation of the minimum and maximum teaching workload. The proposal also mentions other functions that can be counted as teaching activities: educational design, center coordinator, TCC (Final Paper) coordinator, among others.

The proposal was approved by the FDE, CONIF, and SETEC; however, its contents were later included in the SETEC Regulation No. 983 of 11/18/2020 (Brasil, 2020), which was later revoked by the MEC Regulation No. 750 of 07/30/2024 (Brasil, 2024a), indicating the need for new complementary guidelines to regulate teaching activities. Therefore, it is necessary to revisit the discussions held by the EaD GT, resulting in specific regulations for teaching activities at RFEPCT.

### 3.3 Budget matrix for EaD

In 2016, the EaD GT developed a proposal for a budget matrix to differentiate resources allocated to externally funded courses from those relying solely on their funding, following the work initiated by the EaD GT of Setec in the same year. For funding resources, a factor of 0.80 was defined for unfunded distance education in relation to in-person students, and 0.25 for externally funded distance education. In addition, it was suggested that reference centers be included in the matrix and that distance education continue to be counted in the student support resource with a factor that reflects their lower demand relative to regular students (0.25). Regarding the form of distribution, it was proposed to maintain: 10% linear, allocated to the Distance Education Management Center, and 90% according to the number of students, allocated to the campuses offering distance education courses.

The proposal was presented and discussed at the Conif Planning Forum (Forplan) and later at Conif itself and was approved and implemented the following year. This achievement represented an important step in the consolidation of distance education in the federal network, ensuring that the modality had access to the resources necessary for its development and expansion.

### 3.4 Structuring of EaD management centers

The first proposal for structuring the Distance Education Management Centers was prepared by the Fde/Conif Distance Education Working Group in 2012. However, it was based only on the campus structure and was not approved by Setec. In 2016, the EaD GT prepared a new proposal, now with five possible models, later reduced to four, which is included in the e-book Structural Module (Battestin; Zamberlan, 2019b). The proposal was approved by Conif and by a special Setec working group in 2017. However, a regulation was never published. In 2022 and 2023, at the request of Conif and Setec, respectively, the Distance Education Working Group reviewed the proposal and made minor updates to the current scenario. However, to date, no regulation has been published by Setec.

The proposal presented to Conif, which includes the four models with the corresponding number of teachers, administrative technicians, and positions, is shown in Table 1.

**Table 1** - Distance Education Management Center Models for RFEPCT

Model	Teachers	Technicians				CD *2	CD 3	CD 4	FG **1	FG 2	FCC ***
		C <sup>1</sup>	D <sup>1</sup>	E <sup>1</sup>	Total						
EaD core/board	0	0	3	4	7			1		2	
EaD Reference Center	0	0	7	5	12		1		2	2	
EaD Campus 40/44	40	3	24	17	44		1	2	2	2	
EaD Campus 70/68	70	9	37	22	68	1		3	4	8	

\*Management position; \*\* Gratified function; \*\*\* Commissioned Course Coordination Function. **Source:** Adapted from Battestin *et al.* (2019).

<sup>1</sup> Levels of technicians related to their education or level required for the occupation: C – Fundamental; D – High School; E – Higher School.

### 3.5 Models and methodologies for EaD

In order to help institutions in the federal network structure their distance education courses, especially those without external funding, the EaD GT has prepared a document proposing five methodological models that can be used independently, combined, or adapted to the needs of each institution. In the models approved by Conif in 2017, the methodologies constitute different aspects such as teaching levels, staff, technologies, planning, pedagogical mediation, in-person activities, assessments, and the structure of presential support centers (Battestin; Zamberlan, 2019b). Chart 1 summarizes the main characteristics of each methodology, differentiated into the models that can be considered in RFEPCT institutions.

It is important to emphasize that these five models are not prescriptive but constitute a guide to support institutions in structuring their distance education courses, with the flexibility to combine, adapt, or create models, taking into account the specificities of each context so that different configuration possibilities can be created.

**Chart 1** - Distance Education Methodology Models proposed by the EaD GT

Aspects	Models				
	1	2	3	4	5
<b>Virtual Learning Environment</b>	Main tool for carrying out activities; in-person and remote assessments	Main tool for carrying out activities; in-person and remote assessments	Complements the transmission of online classes (via satellite or internet)	Main tool, used as MOOC	Combined with presential classes
<b>Faculty</b>	One teacher plans and others mediate, including at the hubs	Collective and shared teaching	Teacher prepares material and provides telepresence activities	When planned, carries out remote pedagogical mediation	A teacher responsible for the subject
<b>Presence of Hubs and their pedagogical support</b>	Presential. Some hubs are <i>campuses</i> of the institution	Not presential. Teachers travel to the hubs to support actions.	Presential with responsibility of partners	Not foreseen	Not foreseen

Aspects	Models				
	1	2	3	4	5
<b>Partnership in the hubs</b>	Institutional	Other partner institutions	Other partner institutions	-	-
<b>Used in:</b>	UAB and e-Tec	Not defined	Not defined	FIC Courses	Presential courses with EaD components

**Source:** adapted from Battestin; Zamberlan (2019b).

### 3.6 Hybrid Promotion

In 2018, the EaD GT began discussing the concept of hybrid promotion, a promising strategy for the sustainability of EaD in the Federal Network, which was later continued by the 2021 GT. The reduction in federal funding for EaD, starting in 2014, encouraged institutions in the Federal Network to look for alternatives to maintain course offerings in this modality, such as strategies that combine resources from different sources to fund EaD.

A survey conducted by the EaD GT in 2022 revealed that 14 of the 26 RFEPCT institutions had already adopted or were planning to adopt hybrid promotion. The questions addressed issues related to: the diversity of financial sources; fundraising; organization of courses; registration and optimization of courses; pedagogical projects of courses; and EaD hubs. This made it possible to map and better understand existing actions that could be used by other institutions. This strategy allows the complementation of external funding with the institutions' resources, such as the annual budget law (LOA), and the use of human and institutional resources to offer courses through their efforts. The work carried out is detailed in the e-book module *Actions 2021-2022* (Battestin *et al.*, 2023).

### 3.7 Production of materials to support RFEPCT

In addition to conducting research and proposing guidelines, the EaD GT has dedicated to producing support materials (Figure 2) for the implementation and development of EaD in the federal EPCT network, through e-books, videos, guides, tutorials, articles, reports, and other resources that have become a reference for managers, teachers, and technicians involved in the modality (Battestin *et al.*, 2023).

**Figure 2** – Covers of E-books available on the EduCAPES Portal



Source : eduCAPES website <sup>2</sup>.

- **"Guidelines for distance education of the Federal Network of Professional and Technological Education: historical module"** : Presents a history of the Conif Distance Education GTs and their main results up to 2015, in addition to overviews of the institutionalization of Distance Education at RFEPT in 2016 and 2018.
- **"Guidelines for distance education in the Federal Network of Professional and Technological Education: Structural module"**: Addresses important proposals prepared by the 2016/2017 GT and approved by Conif, such as: guidelines for teaching efforts, structuring of distance education management centers, models and methodologies and budget matrix for EaD.
- **"Guidelines for distance education of the Federal Network of Professional and Technological Education: legislation module"**: Also prepared by GT 2016/2017, it brings together the legislation relevant to distance education, facilitating access to information and understanding of the legal framework of the modality, especially after a period of many legal changes.
- **"Guidelines for distance education of the Federal Network of Professional and Technological Education: module actions 2021 and 2022"**: Deals with the actions carried out by the GT in the years 2021 and 2022, especially the actions in the face of the pandemic period.
- **Guide to good practices in producing video lectures**: Designed to assist teachers in producing quality video classes, the guide covers aspects such as planning, scripting,

<sup>2</sup> Available at: <https://educapes.capes.gov.br/> . Accessed on: July 15, 2024.

recording, editing and accessibility.

During the pandemic, the EaD GT created a YouTube channel (Figure 3) with videos on various topics related to EaD, such as video lesson production, online course planning, synchronous and asynchronous communication tools, accessibility and inclusion. The channel has become an important space for sharing experiences and training in EaD.

**Figure 3** – Image from the *YouTube Channel* of the Conif Distance Education GT



Source : EaD GT Channel on *YouTube* <sup>3</sup>.

The GT also participated in the curation of Massive Open Online Courses (*MOOC*) for the Digital Continuing Education Platform (PlaforEDU), which offers training paths for the development of digital skills, using the DigCompEdu *framework*.

### 3.8 Training paths - PlaforEDU - in partnership with Setec and UniRede

The Fde/Conif EaD GT played a key role in the development and implementation of training pathways for teachers and administrative technicians in education (TAEs) in PlaforEDU, launched by Setec/MEC in April 2022. GT experts, in collaboration with UniRede, developed training paths based on the DigCompEdu framework, which is used in public policies in countries such as Spain and Portugal to develop the digital skills of education professionals.

The quality of the courses selected for the PlaforEDU launch phase has been ensured through

<sup>3</sup> Available at: [www.youtube.com/@grupodetrabalhoemeadconiff7024](http://www.youtube.com/@grupodetrabalhoemeadconiff7024). Accessed on: July 15, 2024.

a rigorous evaluation process based on the international SCORE2020 standard, carried out by EaD GT specialists. This evaluation ensures that the courses offered on the platform meet the criteria of quality and relevance for the professional development of RFEPCT staff.

### **3.9 Virtual Student Academic Mobility – UniRede Platform**

Virtual student mobility is an important tool for overcoming challenges such as student retention due to lack of courses, sharing vacant seats in classes with few students, and emergency provision of curricular components for which the institution does not have teachers. In addition, virtual mobility enriches the student experience by exposing them to different realities and perspectives. Thus, the GT, in partnership with UniRede, sought to expand training opportunities by allowing students to attend courses in other institutions virtually, enriching their academic experience and promoting integration between the units of the network.

## **4 DISCUSSING THE PORTRAIT OF THE INSTITUTIONALIZATION OF EaD IN RFEPCT**

The Fde/Conif EaD GT surveyed for the first time in 2016, intending to obtain a picture of the institutionalization of distance education in the institutions of the federal EPT network. A second survey was conducted in 2018, followed by surveys in 2021 and 2023, with this being the most recent.

To conduct the surveys, online forms were organized for data collection. Each distance education director received the link to the form via email, WhatsApp group, or by contacting their respective rectors and vice-rectors of education. Beginning with the 2023 survey, data on the number of students and distance education courses, previously included in the forms, were extracted directly from the PNP metadata, the MEC database on the RFEPCT.

To gather information on the process of institutionalization of distance education at the RFEPCT, questions were asked about the physical infrastructure, the management of human and financial resources, and the methodological aspects applied in the distance education modality. The 2021 survey sought to determine whether the practices developed by the network in relation to distance education helped to face the challenges observed in remote classes during the pandemic. The response of the institutions to the questionnaire, especially in the most recent surveys, reached 100% (Chart 2), which, according to Gil (2017), is an indicator that corresponds to the universe of elements itself, that is, to the reality it seeks to reveal. After the collection, the team of the EaD GT carried out

the summarization of the numerical data through descriptive statistics and the qualitative analysis of the textual data.

**Chart 2** - Participation of Federal EPT Network Institutions in institutionalization portrait surveys

Participants	Participantes	2016	2018	2021	2023
Federal Institutes	Institutos Federais	38	36	38	39
CEFETs	CEFETs	0	0	2	2
Pedro II College	Colégio Pedro II	0	1	1	1
Associated Technical Schools*	Escolas Técnicas Vinculadas*	0	0	2	0
Total Respondents	Total de Respondentes	38	37	43	42
Return percentage	Percentual de retorno	93	90	100	100

\*optional participation

Source: Battestin *et al.* (2018); Neto *et al.* (2023).

The results, which are grouped into categories in the following subsections, seek to bring together points considered key to understanding the panorama of distance education in the Federal EPCT Network.

#### 4.1 Organizational Structure

Identifying how distance education is structured in institutions is important to understand its autonomy and scope. Below, some indicators show how the structures expanded or contracted throughout the surveys.

a) Type of structure of the unit managing distance education policies: this item is key to understanding how institutions structure their units responsible for managing distance education policies. In 2016, the Board-type structure was responsible for organizing distance education in 52.6% of responding institutions, followed by the Coordination-type structure (18.4%). In 2022, the Board-type structure reduced its share to 37%, followed by an increase in the Distance Education Reference Centers (38%). In 2023, the survey showed a balance between these structures in the institutions, with the Board present in 35.71% of the institutions, with a slight increase in the Coordination structure (19.04%), which may have determined a decrease in the presence of reference centers in units



(30.95%). It is important to emphasize that the reference center-type structures are more autonomous than the management and coordination structures. Campus and advanced campus-type units represent the greatest autonomy in the organizational structure of the institutions; however, their presence has decreased sharply due to the changes in the legislation on the organization of federal institutes;

b) Location of the distance education unit in the organizational structure: its location in the organizational structure, that is, to whom the distance education management is subordinated, has an impact on the autonomy of distance education management in institutions. In 2016, in 60.5% of institutions, distance education management was subordinate to the office of the vice-rector for education, followed by hierarchical subordination to the rector's office (36.8%). These percentages remained similar in 2021, with distance education management units subordinate to the Office of the Vice-Rector for Education in 53.8% of institutions and to the rector's office in 34.8%. However, in 2023, the survey showed that the link between distance education units and the Vice-Rector's office for Education increased to 61.9%, while the subordination to the Rector's office had slightly decreased (33.3%);

c) Physical structure of the distance education unit: for the institutionalization of distance education, having a physical structure of the management unit of the modality represents both autonomy and internal prestige for the actions developed. In 2016, about 5.3% of the distance education management units had their headquarters, a rate that improved in 2023, reaching 9.5%. However, between 2016 and 2021, there was a 7% increase in the number of institutions that had their distance education unit in the same facilities as the rector's office, so that in 2021, 55% of respondents indicated that they shared the location of the unit with the rector's office. In the 2023 survey, this indicator increased: 59.5% of responding institutions reported sharing the physical structure of the distance education administrative unit with the rector's office, followed by sharing with a campus (9.5%);

d) Number of campuses that have a support structure for distance education: the strengthening of campuses in EaD actions is an important indicator of the institutionalization of the modality in the RFEPECT. In 2021, only 2% of the responding institutions indicated that they had a support structure for distance learning on more than 20 campuses. In 2023, this indicator increased to 6%. However, the number of campuses that do not have a support structure for EaD is growing. In 2016 it was 2.6%, in 2021 it was 16%, and in 2023 it was 19%. These data show that the introduction of EaD on the

campuses of educational institutions is a challenge to face, especially when the number of campuses is expected to increase due to the network expansion policy.

#### **4.2 EaD course offerings**

The following indicators are intended to show how distance education courses are part of the reality of their institutions and how EaD courses are progressing in presential course projects. This will provide a picture of the growing acceptance of EaD in the RFEPT.

a) Number of EaD courses by type and level offered by institutions: Between 2016 and 2021, the percentage of institutions offering 1 to 5 undergraduate EaD courses increased from about 15% to 22%. Similarly, the percentage of institutions offering 1 to 5 graduate EaD courses increased from 16 percent in 2016 to 24 percent in 2021. This increase in the number of EaD courses offered by institutions is a direct reflection of the number of students enrolled in this modality.

Due to the COVID-19 pandemic and its impact on institutions' presential activities, the 2021 survey sought to determine how many institutions were already implementing distance education in presential courses. The data shows that 47% of institutions had up to 10% of their presential courses with EaD. However, 35% of the institutions had no presential courses with EaD. This important indicator of the institutionalization of distance education, which shows the acceptance of the modality in presential courses, should be monitored very carefully in future surveys.

#### **4.3 Staff policy to support EaD**

To support the strengthening of distance education in RFEPCT institutions, it is essential to invest in the training of specialized teams to support its actions. In this way, the staff policy, represented in the following indicators, also represents appreciation and investment in the professionalization of distance education.

The number of permanent staff (including technicians and teachers), trainees, and fellows dedicated to supporting EaD activities has varied considerably over the surveys. In the last two surveys (2021 and 2023), the number of institutions with up to 2 administrative staff dedicated to EaD on campus increased from 1 to 8. In terms of permanent faculty, the number of institutions reporting that they did not have at least two permanent faculty members supporting EaD on campus in 2021 increased to 13 institutions in 2023, that is, in the last survey, 30.9% of institutions reported that their

campuses already had at least two permanent faculty members working on distance education. However, the latest surveys show that there is still a significant number of institutions that do not have trainees and fellows supporting EaD activities among their staff, both on campus and in the management unit.

b) Number of functions assigned to the Distance Education Management Unit: The more functions the EaD Management Unit has, the greater its capacity to manage the different responsibilities (represented by the levels of management position - CD or FG) and the greater its autonomy. In the 2021 survey, 18 institutions reported having a CD-3 assigned to the distance education management unit. In 2023, the number was 23. Only one institution reported having a CD-2 assigned to the EaD management unit since the 2016 survey. In 2021, 7 institutions reported having at least 1 FG-1 available for EaD, while in 2023, this number increased to 11. In general, a large number of institutions reported not having any of the CD or FG types dedicated to EaD management.

#### **4.4 Models and/or methodologies for offering institutionalized EaD courses**

The following indicators seek to show the extent to which EaD has mobilized institutions to the point of producing specific regulatory documents. Similarly, the inclusion of EaD in research and extension indicates important progress towards its consolidation in higher education.

a) Documents that include EaD in the institutions: the more institutions indicated that EaD was already included in their regulations, statutes, and plans, the greater the degree of institutionalization of the modality in the EPT network. In the surveys carried out in 2021 and 2023, there was stability: in both surveys, about 20% of the responding institutions indicated that EaD was already included in their Institutional Development Plans (PDI). For the Didactic Organization document, the percentage of institutions that indicated that EaD was already included in their academic standards was around 14% in the same period. In a post-COVID-19 pandemic scenario, the percentage of institutions that indicated that they had resolutions that provided for the use of EaD subjects in presential courses increased: in 2021, the percentage of institutions was 10.10%, and in 2023, this value rose to 14%.

b) Research and extension in EaD: The percentage of institutions reporting that their EaD students participate in research projects increased from 15% in 2021 to 27% in 2023. However, in the same surveys, the number of institutions that reported no research activities in their EaD courses

remained above 20%. There was also a slight improvement for Extension. The percentage of institutions that reported developing extension projects in their EaD courses increased from 14% in 2021 to 17% in 2023. Even with the implementation of extension curricularization, the percentage of institutions that indicated that they do not have extension activities in their EaD courses remained at around 19%.

Through this research, it was possible to observe the evolution of the institutionalization of EaD at RFEPCCT, to identify the progress made as well as the areas that still require considerable attention for adequate improvement. It is important to mention: a) the significant growth of EaD, with an increase in its courses, distance disciplines in presential courses and the growing presence of EaD in institutional documents; b) the challenges in structuring the management centers of EaD, a critical point that directly affects the capacity for management, planning, and monitoring of the modality in institutions; c) the importance of teacher training, since the lack of knowledge of methodologies, tools, and technologies specific to EaD has proven to be an obstacle to the quality of the offer; d) the resistance to EaD among teachers, managers, and even students, combined with the strong culture of presential teaching, are factors of prejudice and misinformation about the progress of the EaD modality in Brazil and abroad; e) the impact of the pandemic, as evidenced by the 2021 survey, which showed that institutions in an advanced process of institutionalizing EaD were able to adapt more easily to it. In addition, the pandemic also stimulated the offer of online courses and the search for training in digital technologies. Thus, the work of the Conif EaD GT has been highlighted as important for the advancement of EaD in RFEPCCT institutions, contributing to quality, accessible, and inclusive distance education (NETO *et al.*, 2023).

## 5 FINAL CONSIDERATIONS

Distance education, as implemented by RFEPCCT, has been established as a strategic modality for democratizing access to education. This article shows that EaD is no longer just a promise, but has become a reality in Brazilian education, driven by federal initiatives such as UAB and Rede e-Tec Brazil. This importance may explain the role of the EaD working groups organized by Conif in the consolidation of policies aimed at this modality.

In the current context, the regulation of EaD must be developed collaboratively and based on evidence, with the active participation of all stakeholders. This collective effort is necessary to meet

the regulatory challenges as well as to continuously improve the quality of education, such as adequate teacher training, increased research, and extension in EaD to increase student participation in the development of projects that respond to the specificities of this modality.

The global digital transformation, driven by emerging technologies such as Artificial Intelligence (AI), has placed EaD in a prominent position in the democratization of access to knowledge. The RFEPCT faces the challenge of leading the construction of an educational system that is innovative and adapted to the current demands of the world of work. However, there are obstacles to overcome, such as the requirement that 50% of the workload in distance education undergraduate courses must be presential, a potential obstacle to the expansion of distance education.

The consolidation of EaD in the RFEPCT requires new fronts of action, among which the following stand out: a) the continuation of the discussions on the budget matrix, as well as new formats of external support for EaD, in order to guarantee its maintenance and expansion; b) the strengthening of academic student mobility and the implementation of teacher mobility, in partnership with UniRede; c) the definition of specific indicators for EaD; d) the regulation of student support for EaD students; e) the maintenance of the dialogue channel proposed by the EaD GT, to meet the needs of Fde and Conif; and f) the preparation of a portrait of the UAB Presential Support Centers, in partnership with UniRede.

Finally, there should be continuity in the work of the Fde/Conif EaD GT, in collaboration with the Government and the RFEPCT institutions, to guarantee the evolution of EaD in Brazil, making it a quality, accessible and integrated teaching modality in the Brazilian educational system.

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