



In-person, hybrid, or distance learning: which modalities predominate in different countries?

In-person, hybrid or distance education: which modalities prevail in different countries?

Frederico da Silva Cesario ¹

José Ricardo Martins Machado ²

Summary

This study analyzes the prevalence, advantages, and challenges of in-person, hybrid, and distance learning modalities in higher education in the post-pandemic context, considering different national and international realities. The central objective was to understand how these modalities have become established, what factors drive or limit their adoption, and how they influence student preferences and institutional strategies. The research adopted a qualitative, descriptive approach, based on a bibliographic and documentary review, covering publications from 2020 to 2025 obtained from scientific databases and institutional reports. The analysis was structured around three axes: a global overview of the distribution of modalities, the consolidation of hybrid education as a trend, and an assessment of preferences and challenges in higher education. The results indicated that, although in-person modalities remain highly accepted, particularly due to social interaction and academic connection, hybrid learning is experiencing continued growth, favored by technological advancements, flexibility, and personalized learning. It was identified, however, that the effective adoption of hybrid and distance learning depends on adequate infrastructure, access to digital resources and teacher training.

It was also found that the convergence between student preferences and institutional strategies is not uniform, being influenced by pedagogical, socioeconomic, and cultural factors. The conclusion is that the planned integration of modalities, supported by public digital equity policies and investments in teacher training, enhances the quality and scope of education, contributing to the democratization of access and adaptation to the contemporary demands of higher education.

Keywords: Hybrid learning. Distance learning. In-person learning. Educational modalities. Post-pandemic.

1 INTRODUCTION

The global educational landscape has been profoundly transformed by the pandemic. COVID-19, the moment when distance learning ceased to be an exceptional alternative to become a central mechanism for the continuity of academic activities. As a result, modalities such as distance learning and hybrid learning have gained strength, emerging as structural possibilities and not merely contingent. This abrupt movement exposed challenges and revealed opportunities associated with the adoption of digital environments in education, opening space for reflection on the real impact of the changes and how institutions have been rearranging in response.

1 PhD student at the Integrated Research Center Integralize CIPI e-mail: fredericocesario@yahoo.com.br

2 Doctoral Supervisor at the Integrated Research Center Integralize CIPI e-mail: prof.ricardo@hotmail.com

The problematization of this study revolves around the role that face-to-face modalities, hybrid and distance play in today's higher education, especially after the shock pandemic. The question is how student preferences, institutional strategies and structural conditions converge or clash with each other, and if the coexistence of these modalities has been the result of alignment or tension between different actors and educational contexts.

This investigation seeks to understand whether such configurations represent significant evolution or limited adaptation to the new technological paradigm.

The relevance of research is based on three main fronts. First, in the theoretical, broadens the understanding of the digital transition in education, identifying the elements that promote or impede effective integration between in-person, hybrid, and distance learning. Second, in methodological plan of teaching and institutional practice, offers subsidies for the design of educational policies that consider both student expectations and limitations structural. Finally, on a social level, it contributes to the democratization of access to education quality in equitable and adaptable terms.

The objectives of this research are divided into general and specific. The general objective consists in analyzing the predominance, advantages and challenges of face-to-face teaching methods, hybrid and remote in different national and international contexts in the post-pandemic period. The specific objectives include: (a) mapping the distribution of these modalities in higher education global; (b) verify the perceptions and preferences of students and teachers in relation to each format; (c) identify the structural and pedagogical challenges related to the adoption of models hybrid or remote; (d) present examples of successful practices, as in the cases of Uruguay and Estonia.

2 THEORETICAL BASIS

2.1 GLOBAL OVERVIEW: DISTRIBUTION OF EDUCATION MODALITIES

The global educational scenario has been undergoing a structural transition marked by coexistence and the reconfiguration of in-person, hybrid and distance learning modalities. The COVID-19 pandemic accelerated this process by forcing educational institutions to migrate quickly to the virtual environment, generating a collective experience that reconfigured expectations and practices. Recent surveys indicate that in 2020-2021, almost half of American students were enrolled exclusively in online courses, a number that decreased in the following years, but still remains significantly higher than the pre-pandemic levels, showing that the modality is no longer a resource of

contingency, but a consolidated element in the educational portfolio of several countries (INTEGRATED POSTSECONDARY EDUCATION DATA SYSTEM, 2025).

The expansion of e-learning around the world reflects not only the adoption of digital platforms, but also a global movement of methodological diversification. By 2023, approximately 49% of students in different countries have completed at least one fully online course, while the majority of undergraduates took some course remotely, indicating that the digital education has become a natural part of the academic path. This advancement is accompanied by market growth, which already exceeds 370 billion dollars and continues to grow expansion, driven by factors such as flexibility, cost reduction and expanded reach geographical (APRIL ABA, 2024).

Hybrid teaching emerges as a strategic alternative, combining the advantages of in-person with the flexibility and resources of digital. An international report indicates that 62% of educational and corporate organizations adopt blended formats, combining synchronous and asynchronous activities, and that this combination is perceived by teachers and students as a promoter of engagement and better academic results. Among the benefits reported, the personalization of learning and the possibility of integrating active methodologies with technological resources (SCHEER-IMC, 2024).

Meta-analysis research reinforces the perception that blended learning can overcome performance of traditional face-to-face learning. Systematic reviews indicate that, when planned accordingly, this model presents significant gains in content retention and student satisfaction, without loss of depth and quality of learning. Such evidence strengthens the idea that the balanced integration of in-person and virtual activities can offer the “best of both worlds” for different student profiles (SCHMID et al., 2023).

Despite the positive results, the successful implementation of hybrid learning has not is uniform and depends on variables such as infrastructure, access to devices, connectivity and teacher training. In countries facing technological inequalities, the adoption of modality can accentuate disparities, benefiting only groups with better conditions access. This implies that public policies aimed at digital equity are fundamental to prevent pedagogical innovation from becoming a factor of exclusion (CAO et al., 2023).

Transformations are not restricted to the academic field. In the corporate world and in executive education, there is a movement to revalue face-to-face meetings, which grew from 14% to 62% between 2020 and 2024, especially in short programs duration focused on networking and practical immersion. Even so, hybrid courses maintain

stable participation, showing that companies and professionals opt for different formats according to the objectives and demands of each project (FINANCIAL TIMES, 2025).

The future of educational modalities is also related to the incorporation of microcredentials and modular programs, which allow students to build more fulfilling trajectories flexible and personalized. This movement, strengthened by the use of digital platforms, meets the growing demand for fast, applicable training aligned with market needs work, especially in areas of innovation and technology (CALMU, 2025).

The global panorama reveals that countries with robust teacher training policies and consistent investments in digital infrastructure tend to be more successful in consolidation of hybrid and online learning. Experiences of nations like Estonia and Uruguay show that the articulation between technology, continuing education and inclusive pedagogical culture is crucial for sustainable results, preventing innovation from being limited to changes superficial in the format of classes (GCHUMANRIGHTS, 2025).

At the same time, bibliometric studies on hybrid teaching indicate that scientific production on the subject has intensified in the last two decades, focusing on countries such as the United Kingdom, the United States, and Australia. This literature has contributed to the systematization of concepts, identification of good practices and formulation of replicable models in different contexts, strengthening the debate on the ideal conditions for adopting modalities (EU-JER, 2023).

Based on this set of evidence, the analysis of the predominant modalities in several countries demonstrate that the choice between in-person, hybrid or distance learning is not homogeneous nor linear. Instead of pure and simple substitution, what we observe is an adaptation of institutions to different scenarios, demands and audiences, in a process that combines tradition and innovation, with the potential to generate significant impacts on the democratization of access and quality of education (YU, 2022).

2.2 HYBRID EDUCATION AS A POST-PANDEMIC TREND

The massive adoption of remote learning during the COVID-19 pandemic represented a unprecedented experience in recent educational history, driving a global debate on the role of technology in learning. Initially, the abrupt transition revealed weaknesses structural, from access limitations to the lack of pedagogical preparation for the use of digital platforms. However, as institutions and teachers adapted, a model that reconciled face-to-face contact and virtual resources, shaping what is today

recognizes hybrid teaching, or blended learning, in different countries and contexts (SCHMID *et al.*, 2023).

Post-pandemic hybrid teaching is not limited to a temporary solution, but establishes as a long-term strategy capable of integrating active methodologies, resources interactive and flexible schedules. International studies indicate that, when well planned, this format maintains or improves academic performance in relation to teaching traditional, with significant gains in student retention and engagement. These evidence consolidates the perception that alternating between online and in-person moments can serve diverse audiences, adapting to varied institutional realities (YU, 2022).

Nations like Uruguay and Estonia are often cited as references in this process. In Uruguay, the Ceibal program, which began before the pandemic, had already distributed equipment and expanded connectivity, which facilitated the migration to hybrid practices and sustained its continuity in the post-pandemic period. In Estonia, investments in integrated digital platforms and teacher training have allowed not only the maintenance of activities, but also the introduction of more personalized approaches, using data to monitor and support learning (GCHUMANRIGHTS, 2025).

The benefits of blended learning are also evident in its ability to promote more dynamic learning experiences, exploring everything from gamification to project-based learning. Recent reports show that 62% of organizations educational and corporate institutions have adopted blended formats in their programs, and that 73% of Teachers who use this model report greater student engagement. Such data demonstrate a consolidation trend, driven by the perception that technology, when used in a planned way, it expands pedagogical possibilities (SCHEER-IMC, 2024).

On the other hand, the consolidation of hybrid teaching is not homogeneous and faces obstacles significant. In regions with low technological infrastructure, the modality can expand inequalities, favoring only groups with greater access to equipment and internet quality. Meta-analysis research highlights the need for public policies digital equity, which guarantee all students adequate conditions for participation, without that the modality becomes a factor of exclusion (CAO *et al.*, 2023).

The hybrid experience also imposes new demands on teaching. More than to master digital tools, the teacher needs to develop skills to plan activities that make sense in both the in-person and virtual environments, balancing the use of technological resources and human contact. Studies indicate that continuing education

focused on active methodologies and instructional design increase the effectiveness of the model and reduce the overload reported by many professionals (EU-JER, 2023).

The strengthening of hybrid teaching is also linked to the growing demand for courses modular and micro credentials, which offer flexible and adaptable trajectories to the needs of the student. Higher education institutions, especially in Europe and North America, have been incorporating these offers as a way to expand their reach and respond quickly to changes in the job market, exploring the potential of hybrid to offer content concentrated face-to-face and distributed online activities (CALMU, 2025).

Recent academic literature on the topic shows that research in hybrid learning has grown exponentially in the last two decades, with emphasis on productions from countries leaders in educational innovation. This theoretical basis contributes to the systematization of good practices and for the construction of replicable models, which consider both technical conditions as the cultural and pedagogical aspects involved in the transition to hybrid (SCHMID *et al.*, 2023).

Experiences such as those in Uruguay and Estonia also show that consolidation of the model depends on a systemic vision, capable of articulating technology, public policies, teacher training and school management. It's not enough to incorporate digital tools; it's necessary to redefine processes, continually evaluate results, and ensure students participate actively participate in their learning process. Without this integration, there is a risk that the hybrid will limit to a juxtaposition of modalities, without effective complementarity (GCHUMANRIGHTS, 2025).

Thus, post-pandemic hybrid teaching is an irreversible trend in many educational systems, not only because of their ability to cater to different profiles and contexts, but also by offering paths for pedagogical innovation and expansion of access. The challenge, however, lies in ensuring that its adoption is accompanied by strategies that ensure quality, equity and sustainability, allowing the model to contribute effectively for the democratization of education (YU, 2022).

2.3 PREFERENCES AND CHALLENGES IN IN-PERSON AND REMOTE HIGHER EDUCATION

University students' preferences regarding teaching modalities reflect profound changes in expectations and study conditions in the post-pandemic. A survey conducted in Brazilian institutions indicates that 43% of university students express a preference for face-to-face teaching, while 31% opt for distance learning and 26% choose the hybrid format. These numbers demonstrate that,

despite the increased acceptance of distance learning and hybrid technology, face-to-face contact still maintains a significant value, especially due to social interaction and ties with the academic community (UNICEUB NEWS AGENCY, 2024).

The reasons for maintaining this preference for in-person attendance go beyond mere tradition. Research shows that many students associate the in-person format with greater sense of belonging, greater academic support and better access to physical resources, such as libraries and laboratories. These factors contribute to an educational experience perceived as more complete and less fragmented, although the flexibility of teaching remote work is recognized as an important advantage for those who need to reconcile study and work (YU, 2022).

However, the advancement of distance and hybrid education is an unavoidable reality. Studies show that, post-pandemic, adherence to flexible formats increased significantly, expressive, driven by improvements in teaching platforms, greater familiarity of teachers with digital resources and by consolidating practices such as recorded video classes and interactive forums. This technological evolution has expanded pedagogical possibilities, allowing greater personalization of learning (SCHMID *et al.*, 2023).

The Australian context clearly illustrates this transition. Universities in the country have recorded a gradual emptying of in-person classrooms, as more students opt for online or hybrid modalities. This change is associated with the search for flexibility and reduced travel, but raises concerns among educators about the loss of engagement, the difficulty in maintaining academic ties and the potential decrease of the perceived quality of teaching (THE GUARDIAN, 2025).

Although online and hybrid modalities expand access, the literature indicates that they require greater discipline and autonomy on the part of students, as well as strategies more structured pedagogical approaches to ensure active participation. Without an instructional design adequate, there is a risk of increased dropout rates and a drop in satisfaction, especially among students who are unfamiliar with virtual environments or face technological barriers (CAO *et al.*, 2023).

The feeling of belonging, identified as one of the central elements of university experience, tends to be stronger in face-to-face teaching. Research indicates that daily coexistence and spontaneous interactions in academic spaces contribute to the building support networks, which are essential for academic permanence and success. In On the other hand, remote modalities require intentionality in the creation of virtual spaces of socialization and interaction (EU-JER, 2023).

In hybrid learning, there is potential to balance these aspects, but its success depends of a coherent integration between online and in-person moments. Models that only reproduce face-to-face content in a virtual format tend to generate frustration, while those who use technology to expand and deepen learning present better results in terms of engagement and performance (SCHEER-IMC, 2024).

Academics' perception of the modalities also varies according to the area of knowledge. Courses with a high demand for practical activities, such as Engineering and Science of Health, tend to maintain a greater face-to-face workload, while more theoretical areas, such as Social Sciences and Letters, demonstrate greater openness to hybrid or fully remote. This differentiation suggests that choosing the most appropriate modality does not must be homogeneous, but sensitive to the specificities of each field (SCHMID *et al.*, 2023).

On the international scene, it is observed that countries that invest in a balanced way in digital infrastructure and quality physical spaces can offer a wider range a wide range of options, allowing students to choose the format that best suits their needs. your reality. This flexible approach is seen as strategic for increasing satisfaction and reduce dropout rates, in addition to aligning higher education with contemporary demands of mobility and adaptability (YU, 2022).

Therefore, preferences and challenges in higher education are not limited to a dispute between in-person, hybrid and distance learning, but they reflect a changing ecosystem, in which factors such as belonging, flexibility, quality and equity intertwine. The future looks point to more hybrid and adaptive models, capable of responding to both the demands of students regarding institutional needs, as long as they are accompanied by policies and pedagogical practices that guarantee effectiveness and inclusion (CAO *et al.*, 2023).

3 METHODOLOGY

The present study was developed from a qualitative approach of a descriptive, based on bibliographic and documentary review. The choice of this method is justified by the need to understand, through the analysis of different academic sources and institutional, the transformations and trends of the in-person, hybrid and distance learning in different national and international contexts, with an emphasis on higher education. The investigation sought to identify patterns, comparisons and successful experiences, without the intention to carry out experimentation or direct statistical measurement.

The research universe corresponded to the scientific and technical production published between years 2020 and 2025, a period that includes both the emergency scenario caused by

COVID-19 pandemic and the subsequent period, characterized by the consolidation of hybrid practices and the repositioning of educational modalities. The sample was defined through careful selection of scientific articles indexed in recognized databases, such as SciELO and Google Scholar, as well as institutional reports and documents from organizations international studies that directly addressed the topic studied.

The inclusion criteria considered the relevance and timeliness of the publications, the relevance to the central theme of the research and the presence of data or comparative analyses between teaching modalities. Priority was given to studies that presented geographic cuts distinct, covering experiences from countries in Latin America, Europe, Oceania and South America North, in order to broaden the understanding of the global panorama. Publications prior to 2020, without direct link with the pandemic or post-pandemic context, were excluded to avoid outdated data and interpretations.

Data collection was carried out through a systematic search in the aforementioned databases, using combinations of keywords such as “hybrid learning”, “face-to-face education”, “distance learning”, “pandemic” and “global educational trends”. They were adopted boolean operators and date filters to ensure that the results were aligned to the temporal and thematic cut of the study.

After selection, the materials were organized and categorized into three main axes, corresponding to the subchapters presented in the theoretical basis: global overview of distribution of teaching modalities; hybrid education as a post-pandemic trend; and preferences and challenges in in-person and remote higher education. This categorization allowed establish a logical sequence in the presentation of results and in the construction of the argumentation.

Data analysis followed the content analysis method, seeking to identify convergences and divergences between the different sources, in addition to extracting elements that could explain the reasons for the preferences and challenges highlighted, as well as the conditions necessary for the effective adoption of each modality. The results obtained were discussed at in light of the theoretical framework, seeking to dialogue with already consolidated evidence and studies recent.

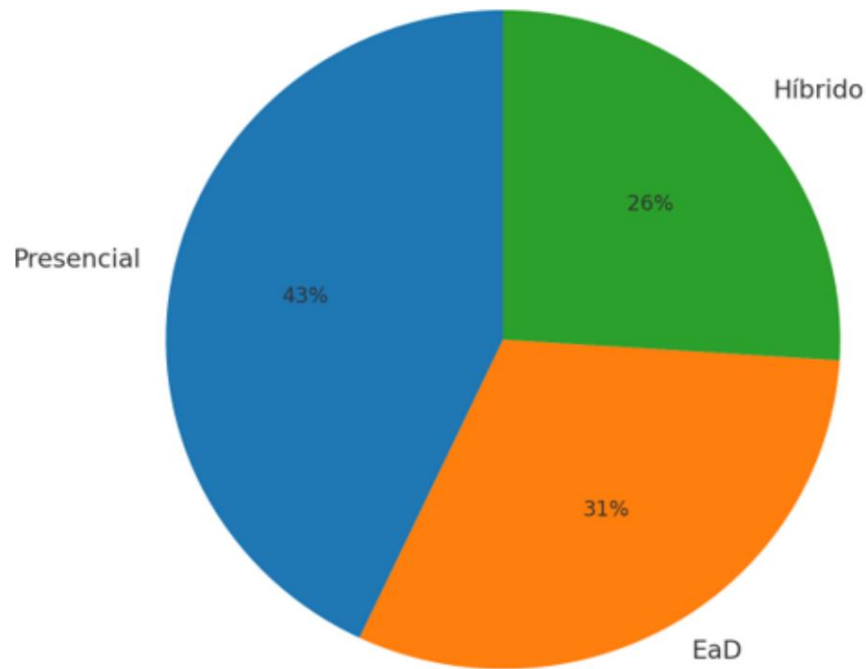
As this is bibliographical research, there was no collection of primary data with human participants, which dispensed with the need to submit the work to ethics committees. However, all sources used were duly cited and referenced in accordance with the standards of ABNT NBR 6023:2018, ensuring academic rigor and integrity of scientific production.

4 RESULTS AND DISCUSSIONS

Analysis of information obtained from bibliographic sources and cited data in the theoretical basis allows us to understand, in a comparative way, how different teaching modalities are positioned in the current scenario and what factors influence their rates adoption and preference. The evaluation was structured around two central axes: perception and choice of university students and the incorporation of hybrid teaching by institutions educational and corporate.

The first axis examines the stated preferences of university students Brazilians in relation to teaching modalities. According to a survey released by UniCEUB News Agency (2024), 43% of respondents said they preferred education in-person, 31% opted for distance learning (EAD) and 26% chose the hybrid model. These data indicate that, although virtual modalities have gained space, the face-to-face maintains strong appeal, especially for its potential to promote social interaction, proximity to faculty and access to physical resources such as libraries and laboratories. Figure 1 graphically illustrates this distribution.

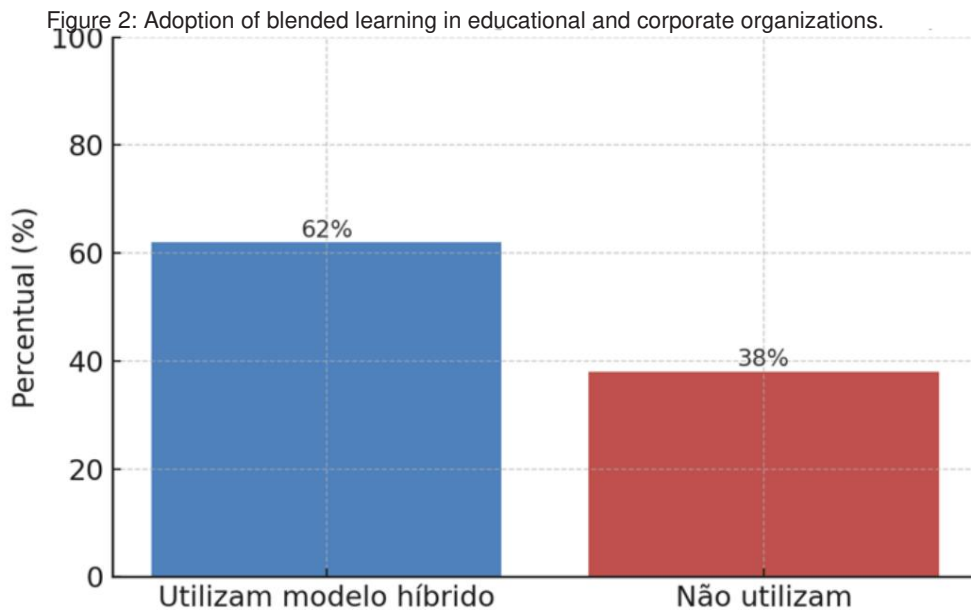
Figure 1: University students' preferences



Source: author's own.

The predominance of the in-person modality does not mean rejection of the digital, but suggests that student choice involves multiple criteria, such as course profile, infrastructure available and your own personal study conditions. Online and hybrid modalities offer flexibility and adaptability, but they also require greater autonomy and discipline, which can represent a challenge for some student profiles. Studies such as those by Yu (2022) reinforce that the experience of belonging to the academic community and direct interaction with colleagues and teachers are still central elements for student satisfaction.

The second axis of analysis addresses the adoption of hybrid teaching in the institutional environment. A report published by Scheer-IMC (2024) indicates that 62% of educational organizations and companies have already incorporated the blended format into their practices. The expansion of this model reflects not only an interest in modernizing content delivery, but also a strategy to respond to contemporary demands for flexibility and customization. The Figure 2 shows the percentages of institutions that do or do not use the hybrid modality.



Source: author's own.

The growth in the adoption of hybrid learning is directly linked to the advancement technological, teacher training focused on the use of active methodologies and the perception of that a balanced combination of in-person and virtual learning can generate better results academic and operational. However, the consolidation of this modality still faces barriers, especially in regions with infrastructure limitations and unequal access to the internet and devices, which can restrict the scope of pedagogical innovation.

When comparing the two axes, it is clear that there is a distance between the preferences individual and institutional strategies, while a significant portion of students maintains a preference for face-to-face teaching, institutions tend to expand hybrid teaching, motivated by economies of scale, cost reduction and adaptation to new market demands of work. This discrepancy suggests that the effectiveness of implementing the hybrid model depends not only on the offer, but also on its acceptance and appropriation by students.

There was a significant migration to online and hybrid formats, with classrooms increasingly empty physical spaces. This trend reinforces the need for strategies that maintain engagement and a sense of belonging in the digital environment, preventing flexibility becomes academic isolation (THE GUARDIAN, 2025).

Overall, the results discussed show that the definition of the modality predominant is not homogeneous across countries and institutions, it is shaped by factors such as public policies, investment in infrastructure, teacher training, academic culture and profile socioeconomic status of students. More than seeking a single model, the challenge lies in

integrate face-to-face, hybrid and distance learning strategically, ensuring quality, equity and pedagogical relevance.

FINAL CONSIDERATIONS

The research confirms that the overall objective of analyzing the predominance, advantages and challenges of in-person, hybrid and distance learning modalities in higher education in the post-secondary context pandemic is reached. It is found that the modalities coexist in a non-homogeneous way, with the consolidated presence of hybrid teaching as a trend and the maintenance of the value attributed to in person, especially due to social interaction and academic ties. It is noted that student preference and institutional strategy do not always converge, but that integration planned between formats enhances the quality and scope of education. The hypotheses of that structural, technological and pedagogical factors directly influence the adoption and effectiveness of the modalities are confirmed, showing that public equity policies digital and teacher training are crucial for sustainable results. As a contribution In practice, the study provides support for the design of institutional policies more aligned with demands and profiles of students, and, in the theoretical field, reinforces the understanding of the dynamics of educational transition in the post-pandemic period. The lack of data is recognized as a limitation primary that deepen the individual perception of students, being recommended for future research to conduct empirical surveys and comparative analyses between different areas of knowledge.

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