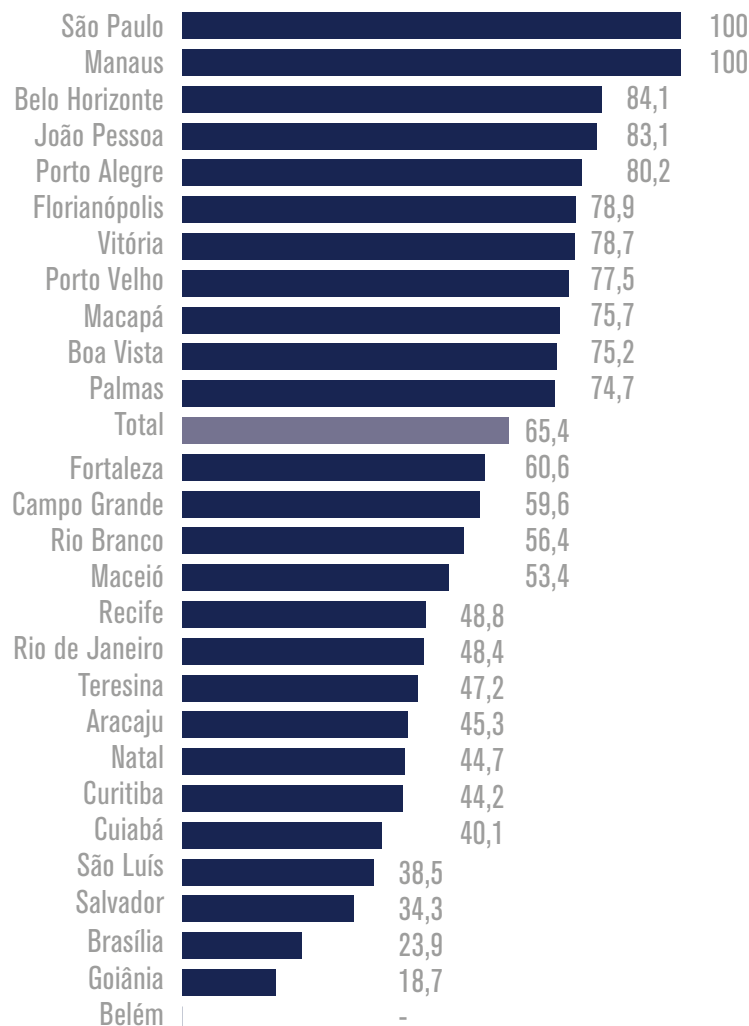




CONNECTED EDUCATION INNOVATION POLICY (PIEC)

According to the National Survey on Students' Health, conducted in 2019 by the Brazilian Institute of Geography and Statistics (IBGE), in public schools, only 65% of 9th graders had access to their schools' internet.

Figure - Percentage of public school students in the 9th grade who reported that students have access to the school's internet (%)



Source: by TCU, based on data from the National Survey on Students' Health, 2019, by IBGE.²

²<https://www.ibge.gov.br/estatisticas/sociais/educacao/9134-pesquisa-nacional-de-saude-do-escolar.html?=&t=downloads>

The Connected Education Innovation Program (PIEC), which was renamed the **Connected Education Innovation Policy** after the enactment of Law 14,180/2021, aims to support the universalization of high-speed internet access in public schools and encourage the use of digital technologies in basic education for educational purposes. It must be carried out in conjunction with other programs, either technically or financially supported by the Federal Government, aimed at innovation and technology in education.

To achieve its two goals, the PIEC associates four dimensions that must be developed jointly and coordinated:

- **vision** (conceiving and planning the inclusion of digital technologies in the teaching-learning process, shared by those involved in the educational process);
- **training** (developing skills in teachers and educational managers on the educational use of digital technologies in schools and their potential);
- **educational resources** (selecting and providing learning and academic-management-related materials, tools, and digital content related to supporting the teaching process);
- **infrastructure** (providing services, equipment, devices, and connectivity needed for using digital technologies).

TCU's findings

The TCU identified problems in the **Connected Education Innovation Policy (PIEC) governance and management**. In 2021, the TCU conducted an Operational Audit regarding PIEC to learn about and evaluate public digital strategy policies aimed at improving Brazilian basic education, with a particular emphasis on training students for the digital world, infrastructure, and access to information technologies and communication.

The TCU identified the following threats and bottlenecks to the success of this policy:

- **need to strengthen the synergy among the four structuring dimensions of the PIEC:** the implementation of the program should include integrated and well-defined interventions that globally consider the logic of its four dimensions;
- **need to institutionally consolidate the PIEC's vision dimension** regarding the defined planning instruments and the entities that offer technical support to the education networks: the local innovation plan (PLI), which is the main guiding document for the inclusion of

innovation and technology in the educational practice of public basic education schools; its drafting is up to the state education secretariats; however, it is institutionally weakened and has lost its importance, in opposition to what was defined in the design of the PIEC;

- **need for important definitions in PIEC's multilevel governance:** the policy does not include an adequate survey and planning of costs of the program in all its spheres of operation; the definition of cost estimates lacks an integrated view of its four dimensions together; there is no medium and long-term vision for the PIEC's funding base nor transparency regarding its multianual funding program; the education secretariats have little decision-making autonomy over the composition of the expenditure in their areas of responsibility;
- **need for coordinating PIEC with programs related to initial teacher training:** According to the provisions of the National Common Curricular Base (BNCC): The Ministry of Education has not been coordinating with the Federal Education Institutions (IFEs) to include the technological component in the initial training of teachers, it does not use a mechanism to induce the inclusion of this topic in the educational residency and does not provide reference curricula for teacher training mediated by technology that are aligned with the National Common Curriculum Base (BNCC);
- **need to strengthen continuing training based on the PIEC perspective:** the policy is very limited in terms of continuous training, considering that it does not coordinate the offer of other MEC initiatives, education networks, and IESs. MEC's Virtual Learning Environment (AVAMEC), its main continuous education platform provided for in the PIEC design, needs an effective curatorship that better guides its focus, directing it to groups of teachers that most need ongoing education actions on the use of TDIC in their teaching practice;
- **need for adequate connectivity conditions:** A significant number of municipal schools located in rural areas lack any device with internet access; the average connection speed of public schools is still insufficient for the diversified use of the internet and restricts the educational use of TDIC; and not all schools connected through PIEC have good broadband to meet their needs;
- **unequal access to computer equipment through basic education networks, obsolete equipment, and no supporting structure for its use and maintenance.**

Why are these findings relevant?

The PIEC is MEC's main current policy for instrumentalizing the digital transformation policy in basic education. The current situation limits the policy's effectiveness, jeopardizes the guarantee of access to quality education, and exacerbates existing social inequalities.

The legislative proposal that suggested the creation of the Connected Education Innovation Policy, which resulted in Law 14,180/2021, did not provide for its budgetary and financial implications.

Based on the information provided by MEC's Executive Secretariat and the FNDE, the policy is being funded through the following mechanisms: an annual transfer of funds to schools via PDDE; voluntary transfer to states, municipalities, and the Federal District through the PAR; public call for projects via BNDES; and other connectivity support programs.

There is no medium and long-term vision concerning PIEC's funding and no transparency regarding the multi-annual funding program; this creates a high risk of solution for the continuity of policy actions and reduce the perception of the PIEC to a temporary government action, which is incompatible with its design.

Without an integrated approach to the four dimensions working together, such a limited view of funding only for connectivity may result in the non-attainment or incomplete or fragmented attainment in basic education networks that adhere to the PIEC.

What must be done

The recommendations made to MEC seek to improve the implementation and operation conditions of the connected education innovation policy, focusing on governance problems, threats to its good performance, and the areas with potential for improvement, maintaining adherence to the theory and design drafted for the PIEC, in its four dimensions.

Furthermore, the transparency of PIEC implementation data provided by the audit is critical for a qualified discussion on this public policy by the legislative branch, interested social agents, and collegiate bodies working with education policies at the three levels of Government.

Recent Decisions

Court decisions 2018-2019/2019 and 326/2022, all entered by the TCU Full Court

COURT DECISIONS:

Court decision: 2018/2019 - PLENÁRIO

Session date: xxx

TC: 033.286/2018-3

Court decision: 2019/2019 - PLENÁRIO

Session date: xxx

TC: 035.426/2017-9

Rapporteur Minister: Minister Walton Alencar Rodrigues

Court decision: 326/2022 - PLENÁRIO

Session date: xxx

TC: 039.811/2020-4

Rapporteur Minister: Minister Augusto Nardes

Technical Unit Responsible: xx