Evaluation of the contribution of Portugal 2020 to the Digitalization of Education

Framework

Identify the contribution of Portugal 2020 to the digitalization of education, namely in terms of promoting equal access to education and especially in improving teaching-learning processes

Three Operations' Typologies (OT) financed through European Social Fund's (ESF) resources

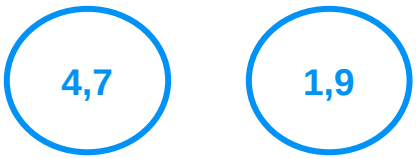
Program for the Digitalization of Schools

Quality and efficiency of the education and training system to promote school success	Training of teachers and other education and training agents	Digital School - Technological equipment and connectivity (SSA* students and teachers)
M€ 0.7 Approved funding Cofinancing rate: **85%** (Community funding / Total Investment)	**M€ 32.7** Approved funding Cofinancing rate: **85%** (Community funding / Total Investment)	**M€ 165** Approved funding Cofinancing rate: **98%** (Community funding / Total Investment)
1 operation **1** financing Operational Program (OP)	**240** operations **2** financing OP	**17** operations **4** financing OP
Action Plan for School's Digital Develepment adherence: **97%** (until april 2023, data from the survey)	**47 771** participations in the digital training (until the end of 2022, data from DGE's report)	**362,867** *kits* to students **83,662** *kits* to teachers (reported value from the programming period)

*School Social Action

Outcomes

Avg. number of computer per student



2017/18 — 2020/21

Coverage rate of Digital School kits

Elementary School — Middle School — High School — Teachers

Methodology

The impact analysis was carried out using the Theory-Based Evaluation method and the "Theory of Change" approach.

There was a broad combination of qualitative and quantitative techniques for collecting, processing and analyzing information in order to cross-reference its results and answer the evaluation questions:

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- 2 surveys
  - 1 to school principals
  - 1 to mainland teachers
- 3 case studies
  - 1 to DBPP* school,
  - 1 to ETPI* school,
  - 1 to non-ETPI school
- Interviews (PO Centro, PO Norte, POCH, DGE, DGEstE, DGEEC, SGEC)
- 3 focus groups
  - 1 final workshop

* DBPP – Digital Books Pilot Project; ETPI - Educational Territories of Piority Intervention

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Main results and conclusions

Relevance

At the end of the 2020/2021 school year, the acceptance rate of the Digital School kits was 81% among students supported by the student's social aid (ASE) and 75% among teachers.

That the parents are held fully liable to the damages in the devices, and that there is no insurance, were the main factors for the non-acceptance of the Digital School kit by disadvantaged students.

Effectiveness

There was a significant increase in the intensity of use of digital tools and contents by teachers during the lockdown period. From lockdown to face-to-face teaching, there was a setback in the intensity of use, but still with higher average values than those reported in the pre-pandemic.

Main constraints when returning to face-to-face teaching: conditions in the classroom for the use of the equipment, conditions of storage and security of the equipment, access to the internet, technical assistance, availability of equipment among the students in the classroom.

The intrinsic characteristics of teachers, such as their propensity to use the digital, are probably what most determines the intensity of use of digital tools.

Efficiency

The delay in the design and launch of the Digital School was the main factor for its increased implementation time.

The lack of human resources to respond to the technical and administrative requirements of the schools and to assist in the configuration of the equipment were the main constraint in the process of distributing the kits.

Impact

The initiatives of the Digital School have contributed to the reduction of inequality in access to computers and internet, thus enabling greater equity in access to education among students with different educational needs and economic resources.

The use of digital tools and content in the classroom context does not seem, by itself, to have a significant impact on student's success and learning. The change in teaching-learning practices and methodologies is still uncommon.

Sustainability

The maintenance and reconditioning of the equipment is increasingly urgent, and it will be all the more urgent the greater the use of the digital in the school context.

The irreversibility of the digital in schools requires a strong investment in school's infrastructures.

European Added Value

The intervention of the European Structural and Investment Funds enabled the implementation of the School's Digital Transition Plan, allowing to increase the scale and broaden the spectrum of intervention, leading to a holistic approach.

Recommendations

1. Rethink the distribution model of the Digital School kits, in order to ensure the sustainability of universal access to teaching with the use of the digital, including the revision of the declaration of responsibility by the guardians, the provision of state-subsidised insurance and the simplification of procedures.
2. Improve the adequacy of the equipment, in terms of quality, functionality and safety, including soundness, weight, speed of processing, assessing the needs of different target audiences.
3. Ensure classroom's conditions and school's logistics to establish a frequent use of the equipment in the classroom (e.g lockers, network coverage) and the periodic maintenance and renewal of technological equipment in classrooms.
4. Increase the technical assistance and computer support to students and teachers, based on a flexible model (dedicated full- or part-time resources, increasing teachers' credit hours to accommodate additional tasks or outsourcing).
5. Give continuity to and diversify the training actions for the digital capacity-building of teachers, exploring further differentiation according to target audiences and including short-term training and other collaborative training processes.
6. Promote, in a sustained way, the use of the digital in a teaching-learning context, including the pedagogical integration of digital technologies in initial teacher training courses and curricula at different levels of education, initiatives for cybersecurity education and responsible use of the internet, training on the regulatory framework for data protection and the right to image, and the involvement of students from ICT courses in technical assistance to students and teachers.
7. Monitor and evaluate the implementation of the PADDE and the pilot projects and disseminate good practices.

The comprehensive information from the evaluation study can be found at www.poch.portugal2020.pt/en.

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