

International assessment, curriculum policy induction and instruction time management: lessons from Portuguese experience¹

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Abstract

Our analysis focuses on a set of education policies and measures that have been adopted by Portugal since 2000 in comparison with different instruments promoted by the Organisation for Economic Co-operation and Development (OECD) and the European institutions. Among these education policies, we will take into account those that have a direct or indirect impact on curriculum and its development, such as changes in curricular organization, instruction time per subject, national testing and external evaluation of schools. Among the instruments we will particularly analyse the effects of the Programme for International Student Assessment (PISA) studies.

We conclude that the regularity of the PISA tests and their technical accuracy have imposed them as the principal means of diagnostic of education systems at the international scale. The results of these tests have influenced the external assessment of learning and the institutionalization of the external evaluation of schools. The combined effect of those instruments over the curriculum is probably more evident in their appropriation and development by schools and teachers following flexible curriculum management policies, and not so coherent when it comes to establishing a minimum fixed instruction time for what is considered elementary or fundamental knowledge (maths and reading literacy) at the expense of the third domain of the PISA tests (science).

Keywords: Transnational regulation; PISA; Prescribed curriculum; National testing

Introduction

Research has been dealing with transnational regulation of education for the past two decades to identify the influence of transnational organizations in the design and implementation of national policies. Many studies have identified some conceptual fuzziness and an imprecise distinction both between regulation and governance, and between globalization and transnationalization, which reveals some confusion regarding the nature of this influence.

In this study, we adopt the concept of regulatory systems that integrate different modes of regulation and are based on social and political mechanisms whose characterization will help us to explain the coexistence of multiple

influences, constraints, and incentives in the modelling of national public education policies.

We focus our analysis on a set of education policies and measures that have been adopted by Portugal since 2000 compared to different instruments promoted by the Organisation for Economic Co-operation and Development (OECD) and European institutions. From among the set of education policies, we will take into account those that have a direct or indirect impact on curriculum and its development (changes in curricular organization, instruction time per subject, national testing, and external evaluation of schools) due to their greater impact on national identity, and their strategic relevance. As far as instruments are concerned, we will analyse the effects of the studies carried out within the scope of the Programme for International Student Assessment (PISA) and the standardization programs promoted by OECD, as well as the open method of coordination promoted by European institutions.

Based on the analysis of the Portuguese experience, we want to demonstrate that it is not a mere process of direct influence, conditioning or pressure on the governments and policies of each state. It is something more complex and involving a diversity of players and socially supported mechanisms.

1. Concept clarification

Globalization has become the mother of all causes and, to a certain extent, the most problematic framework, particularly when it comes to the transformation of national education systems. In this scenario, an important question arises: given that globalization is changing the world, how does this change affect national education systems? Noel McGinn (1997) provided one of the first answers to this question when he concluded that these effects were limited and more evident in policies than in the real functioning of schools, i.e., in teaching and learning processes. Almost two decades after McGinn's work, the pressure for decentralization — one of the arguments put forward by critical and postmodern theories — has apparently increased but the real effects in terms of the power and autonomy that schools and local communities actually have are limited and different whether we are considering developed or developing countries (Hanusheck, 2012). Comparing levels of school autonomy between 2003 and 2012 for a set of 40 countries, data built by Hanusheck from PISA surveys revealed decreasing figures in most countries (Hanusheck, 2012: Table 1 and Figure 2).

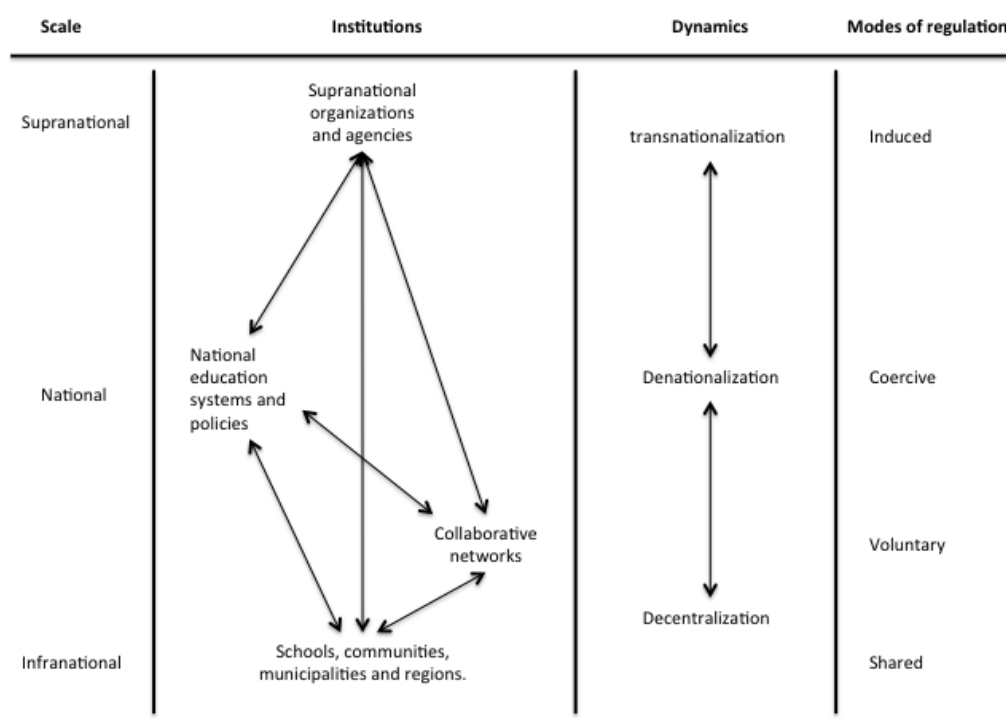
This scenario is different when we consider national education policies. The different theories widely recognise the role played by the circulation of knowledge and good practices in terms of education policies. In fact, this circulation has existed since the 19th century when the European model of mass school was implemented and it was further strengthened in the 20th century (Nóvoa, 2003; Broadfoot, 2000; Phillips, 2000a, 2000b; Justino & Almeida, 2016). However, since World War II, international agencies have been playing a growing role in influencing national policies. Specialized UN agencies, such as UNESCO, the World Bank, the OECD and the European Union now have the power to influence and condition the design and implementation of education policies. Thus, in this particular area, we can speak of a mode of regulating education at the transnational level, without which we can hardly begin to understand national

policies (Resnik, 2008, pp. 3-5). In any case, this movement had emerged long before globalization.

As Marie-Laure Djelic (2006, pp. 3-4) suggests, the term "transnational" is aptly suited to describe this complex of links, exchanges, and interactions that involve and condition the different levels of analysis - from the local to the national and the global.

The second concept that needs clarification is "regulation". Following the proposal of Julia Black (2002, p. 20), the concept of regulation can be understood as "the sustained and focused attempt to alter the behaviour of others according to defined standards or purposes with the intention of producing a broadly identified outcome or outcomes, which may involve mechanisms of standard-setting, information gathering and behaviour-modification." This "decentred" definition of regulation is only fully understood when considered within the recurring movements of self-regulation, deregulation and (re)regulation, and presupposes a disconnection from the traditional view of regulation centred on the State or other public institutions (Justino & Batista, 2013, pp. 43-45).

From the above-defined concept of regulation, Justino and Batista (2013, pp. 49-50) propose the distinction between "coercive regulation" and "induced regulation" - the former more identified with institutions that have coercive power, namely the State; and the latter tied with the notion of "soft regulation" used by some authors (Djelic & Sahlin-Anderson, 2008, pp. 253-256) to characterize the action of transnational organizations and agencies. We would like to highlight that the qualifier "soft" translates the intensity of regulation when we wish to qualify its nature and mechanisms. That is why we prefer the term "induced" and will try to justify the option throughout this work. In this perspective, we prefer to adopt the proposal made by Justino and Batista that can be synthesized by the plurality of modes of regulation as seen on Figure 1.

Figure 1: Scale, institutions, dynamics, and modes of regulation

Source: Adapted from Justino & Batista, 2013, p. 49.

1.1 Transnational regulation and national policies: lessons from the Portuguese experience

Different authors have systematically studied the influence of transnational organizations and agencies on national education policies (just to point out a set of recent and decisive contributions: Grek et al., 2009; Moutsious, 2009; Sunberg & Wahlstrom, 2012; Alexiadou, 2014; Nordin, 2014; Morgan, 2016; Carvalho, 2016). Notwithstanding the different perspectives, we have been able to identify a set of instruments produced by the OECD, the European Union, the World Bank and UNESCO, which condition and inspire the action of national authorities in the design and implementation of education policies. These organizations now act in isolation or in an articulated and convergent way.

Starting with an analysis of the Portuguese experience in the present century, we intend to identify the mechanisms that involve these instruments in the adoption of policies that have a direct or indirect impact on the national curriculum.

1.2 PISA and OECD

In a recent publication, Meyer & Benavot (2013) summarise many of the existing theses about the regulatory effect of this instrument sponsored by the OECD: "PISA seems well on its way to being institutionalized as the main engine in the global accountability juggernaut, which measures, classifies and ranks students, educators and school systems from diverse cultures and countries using the same standardized benchmarks.

The OECD, in turn, begins assuming a new institutional role as arbiter of global education governance, simultaneously acting as diagnostician, judge and policy advisor to the world's school system (2013, pp. 9-10)." Such a powerful instrument should not be despised or overlooked. However, we need to question the reason for this power to influence and condition national authorities. In some cases, we may be looking for political and social legitimacy, but in other cases, as is well known, countries ignore the solutions advocated by OECD experts.

Imagine that the PISA or other OECD reports (like *Education at a Glance*) were confidential and only handed over to policy makers. What would be their real effect on policy? Almost null, we can speculate. Their most powerful asset seems to be their public disclosure through the media with a view to urge the public opinion to demand more or less reforms and to stir the political debate bringing evidence that is essential for the adoption of certain policies. The PISA impact on media and national education policies has been the subject of systematic research (Martens & Niemann, 2010; Breakspear, 2012; Dixon et al., 2013; Lemos & Ferrão, 2015, who have analysed the Portuguese case) and we can find an enlarged consensus on its effective influence on national policies, even recognizing that "media coverage between the participating countries regarding PISA is as diverse as the results" (Martens & Niemann, 2010, p. 3). More than an expression of "accountability", public access to results is a mighty mechanism of induction and isomorphism.

The second powerful asset of PISA reports is their comparative approach. Measuring, classifying, and ranking, not students or schools, but countries and their potential "human capital" stock is an effective instrument to promote competitive economic growth strategies and dynamic labour markets, and to attract foreign capital. The competition between national economies is also the main driver for isomorphism.

The main contributions of PISA are, within each country, a basis for legitimizing education reforms and, externally, one of the drivers for promoting competitiveness between countries and national economies.

In addition, it is important not to consider PISA isolated from other OECD-sponsored instruments. The Program Definition and Selection of Competencies: Theoretical and Conceptual Foundations (DeSeCo) and the work developed by the Centre for Educational Research and Innovation (CERI) are complementary instruments where educational knowledge has been produced according to a very well defined agenda since the 1990s. In the case of CERI, we simply have to look at the list of projects developed and under way or to read the strategic program *Education 2030* to easily identify its education agenda. By analysing CERI, we can identify two strands: the first one was developed by the DeSeCo programme and consisted in defining and selecting the key competences; the second one will conduct an international comparative analysis on curricula. The scope of this project is expressed in a very symptomatic way: "Furthermore, educational transformation is often disrupted by political cycles or competing objectives, which hinders the sequencing of reforms. Changing one element, e.g. curriculum, assessment, pedagogy, etc., may only be useful if other related elements are changed as well." [<http://www.oecd.org/edu/school/education-2030.htm>].

The intention to promote an agenda of educational reforms subject to the same principles and instruments taken for granted and unchallenged is clear. Explicitly, the targets are the curriculum and the assessment to which we can add the external evaluation of schools, as privileged instruments of regulation.

It is too early to talk about *transnational governance*, but we believe that a growing *induction power* should be recognized, not only focusing on PISA but also on the interaction with other OECD-sponsored regulatory instruments. Given the nature of this instruments, we believe it is more appropriate to speak of *induced regulation*, which tends to influence, encourage, and condition the national education policies supported by the power of *coercive regulation*.

1.3 The EU's Open Method of Coordination

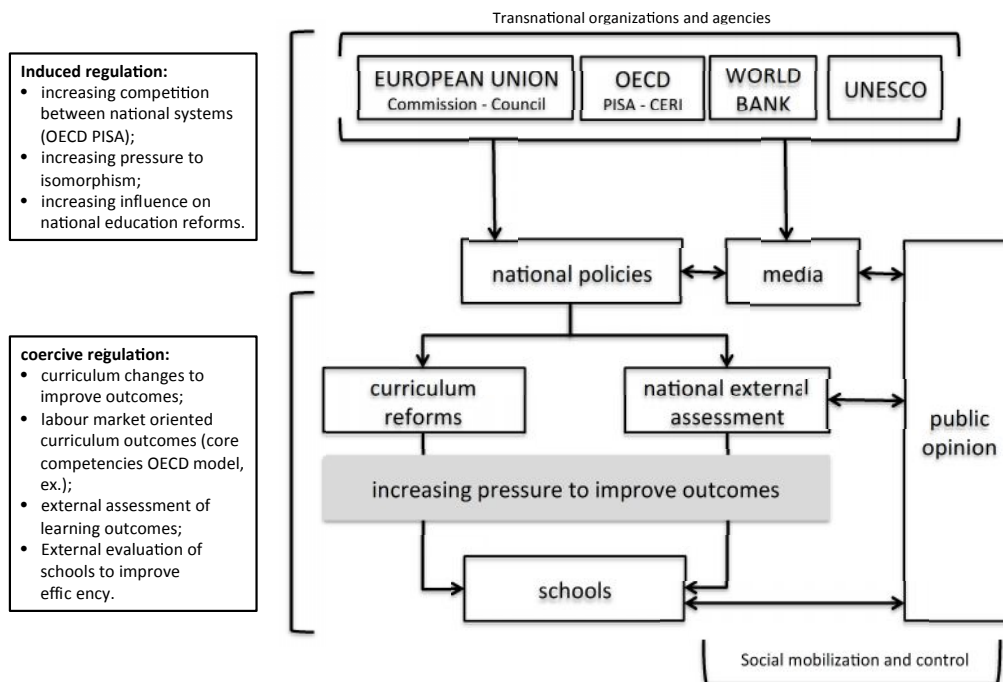
Roger Dale (2004, pp. 174-194), inspired by the article of Kerstin Jacobsson (2004, pp. 355-370) about the "soft regulation" of "EU employment policy", pondered on the effects of the Open Method of Coordination (OMC), defining it as one of the new instruments of transnational regulation and governance, which came out of the Lisbon Summit in the year 2000. Distancing itself from the *Community Method* based on normativity, the OMC fits into what is termed *soft law* and is based on the collaboration among member states to pursue common development goals. These objectives are translated into quantified targets and their realization is evaluated through indicators, benchmarking, and the exchange of good practices.

In the case of education, the OMC is of particular importance because it is an area that the Treaty of Rome allocates to the sovereignty reserve of each member state. This is yet another case of "soft regulation", or a case of "soft governance" as argued by Jacobsson and Dale. Using instruments and mechanisms different from those used by the OECD, the OMC has the same effects of inducing by stimulating and conditioning, in this case based on the commitment of national education policies to the process of convergence that it intendeds to promote.

More interesting is the close collaboration between the education agenda of the OECD and that of European institutions, particularly the European Commission through the Directorate-General for Education and Culture, the Education and training 2020 (ET 2020) framework, and the articulation with the European Centre for the Development of Vocational Training (CEDEFOP) for the European Skills programme. The combined action of these organizations and agencies - including contributions from the World Bank and UNESCO - has been clearly identified by several authors (Lawn & Lingard, 2002). However, the combined mechanisms of these two agendas - the OECD's at a more global level and that of the European Union - continue to be observed in the conception and adoption of national education policies.

In this paper we will try to contribute to a better knowledge of these mechanisms, starting by looking at the Portuguese experience in the last fifteen years with particular emphasis on curricular policies. Our hypothesis is summarized in the diagram outlined in Figure 2:

Figure 2: Transnational organizations, national policies, and modes of regulation



2. Curricular policies in Portugal: prescribed basic education curriculum, 1986-2016

The first question that we wish to answer might be posed as follows: How and to what extent were the curricular reforms that have been implemented since 2000 induced by international tests and explicit or implicit guidelines provided by transnational organizations? We start by analysing those curricular reforms that focused on basic education (ISCED 1 and 2), with particular emphasis on curricular matrices and the time allocated to each curricular area and subject.

The reference framework for the curricular organization of basic education stems from the Basic Law on the Education System (LBSE, Law No. 46/86, of 14 October) and the subsequent acts that have defined the curricula. We will now analyse the time allocated to three subjects: Portuguese, maths, and sciences – the three areas assessed by the PISA tests – regarding the compulsory instruction time per subject taking into consideration the seven changes to the organization of the basic education curriculum that have been made since 1986. We have also included the non-curricular area of Study Support.

The results of the analysis of the first four years of school² are presented in Table 1.

Table 1. Curricular changes and allocation of time per subject in ISCED 1, the first 4 years of compulsory education in Portugal - 1989-2016

Subjects/Curricular Area/Non-subject curricular area	1989		2006		2012		2013		2014	
	No. of hours	No. of hours	%	No. of hours	%	No. of hours	%	No. of hours	%	
Portuguese	**	Min. 32h	32.0	Min. 28h	28.0	Min. 28h	31.1	Min. 28h	29.8	
Maths	**	Min. 28h	28.0	Min. 28h	28.0	Min. 28h	31.1	Min. 28h	29.8	
Environmental studies*	**	Min. 20h	20.0	**	-	Min. 12h	13.3	Min. 12	12.8	
Study support***	- /**	**	-	**	-	6h	6.7	6h	6,4	
Total compulsory instruction time		100h	100h	80.0	100h	56.0	90h	82.0	94h	78.7

Source: Decree-Law No. 286/89, of 29 August; Decree-Law No. 6/2001, of 18 January; Decree-Law No. 209/2002, of 17 October; Order No. 19575/2006, of 31 August; Decree-Law No. 139/2012, of 5 July; Decree-Law No. 91/2013, of 10 July; Decree-Law No. 176/2014, of 12 December.

*Includes aspects of history, geography, and physical and natural sciences.

**No allocated hours.

***Included in the Non-subject area of "personal and social education" with 3 activities: project area, study support, and civic education.

Comparing each reform, the first relevant change that deserves our attention is the introduction in 2006 and for the first time in Portugal of the minimum number of hours per each curricular area/subject. What had been a power of the schools and the teachers in terms of curricular management and development has since then been subject to prescriptive regulation at least regarding the allocation of school hours. This is a clear limitation of the principle of flexible curriculum management. The explanation provided points to the need to "strengthen basic knowledge and develop essential competencies in the Areas of the Portuguese, maths, and environmental studies" (Order No. 19575/2006, preamble).

The second change came with the 2001 reform, when a new non-subject area was introduced personal and social education with three new activities: *project area*, *study support*, and *civic education*. The first of these activities intended to develop interdisciplinary thematic studies. The second intended to develop work habits and to help to organize learning and overcome difficulties. The third one focused on personal education and citizenship. This change and the decrease in the total instruction time over the study period implied a reallocation of time per subject that clearly resulted in the uneven sacrifice of the remaining fields of learning. Over the study period, the three "basic fields of knowledge" have decreased in terms of the total number of hours and weight in the total compulsory instruction time. "Environmental studies" was the most affected subject, while maths managed to resist this decrease, maintaining the 28 hours defined in 2006.

In 2013, "study support" was replaced by "assisted study", which besides promoting work habits and study methods also intended to

“strengthen the support to Portuguese and maths”. This activity earned the status of “compulsory attendance” and a compulsory minimum of 1h30 per week was determined (Decree-Law No. 91/2013, of 10 de July, Article 13). Schools have most probably taken advantage of these regulations and transform the time allocated to “assisted study” into an effective increase of the time allocated to Portuguese and maths. However, only a study focused on curricular development and the different forms of managing flexible margins might test this hypothesis.

In the case of the 2nd cycle, which corresponds to the 5th and 6th grades, we can see (Table 2) that, from 1989 to 2012 (the latest curricular revision of this cycle), every curricular area had the total number of allocated hours reduced due to the introduction of new areas and the substantial reduction of the total compulsory instruction time.

Table 2. Curricular changes and allocation of time per subject in ISCED 1 - 2nd cycle - 5th and 6th grades of compulsory education in Portugal - 1989-2016

Curricular Areas / Subjects / Non-subject area	1989		2001		2002		2012	
	No. of hours	%	No. of hours	%	No. of hours	%	No. of hours	%
Languages and social studies	24	40.00	15.75	32.81	15.75	32.81	16.66	37.02
Portuguese	10	16.67	**	**	**	**	8.34	18.53
History and geography	6	10.00	**	**	**	**	**	**
Foreign language	8	13.33	**	**	**	**	**	**
Maths and sciences	14	23.33	10.5	21.88	10.5	21.88	11.66	25.91
Maths	8	13.33	**	**	**	**	8.34	18.53
Natural sciences	6	10.00	**	**	**	**	**	**
Assisted study	-	-	**	**	**	**	3.3	14.67
Total compulsory instruction time	60h	40.00	48h	-	45h	-	45h	37.07 - 51.74)*

Source: Decree-Law No. 286/89, of 29 August; Decree-Law No. 6/2001, of 18 January; Decree-Law No. 209/2002, of 17 October; Decree-Law No. 139/2012, of 5 July.

*With assisted study.

**No allocated hours.

Given that the curriculum in the 2nd cycle is organized around “subject areas”, the introduction of non-subject areas in 2001 led to the decrease of the total number of compulsory hours by around 25%. Comparing each subject over the study period, only maths had its number of hours increased. In all the remaining subjects, there was a significant reduction both in terms of the total number of school hours and relative hours.

Considering the six years as a whole, we identified a phenomenon that is unusual in national education systems and was intensified in the last two reforms: maths has the same number of allotted hours as Portuguese. Also

uncommon is the fact that the time allocated to sciences and environmental studies has decreased.

More than an increase of the time allocated to teaching literacies that are well-established in the PISA tests, at the level of ISCED 1 we see a relative increase of the time allocated to maths, a significant decrease of the total compulsory instruction time and a higher proportion of the non-subject areas that the 2001 reform introduced and that have not been significantly affected in the past fifteen years.

The changes made to the curricular matrices of the 3rd cycle (7th, 8th, and 9th grades, which correspond to ISCED 2) are summarised in Table 3.

Table 3. Curricular changes and allocation of time per subject in ISCED 2 - 3rd cycle, 7th, 8th, and 9th grades of compulsory education in Portugal - 1989-2016

Curricular Areas / Subjects / Non- subject area	1989		2001		2002		2012	
	No. of hours	%	No. of hours	%	No. of hours	%	No. of hours	%
Portuguese	12	13.3	9	11.8	9	11.7	10	13.3
Maths	12	13.3	9	11.8	9	11.7	10	13.3
Physical and natural sciences	14	15.6	9.8	12.8	9.8	12.6	14	18
Physics and chemistry	7	7.8	**	**	**	**	**	**
Natural sciences	7	7.8	**	**	**	**	**	**
Assisted study*	-	-	**	**	**	**	-	-
Total compulsory instruction time	90	42.2	76.5	36.3	77.25	35.9	75	44.6

Source: Decree-Law No. 286/89, of 29 August; Decree-Law No. 6/2001, of 18 January; Decree-Law No. 209/2002, of 17 October; Decree-Law No. 139/2012, of 5 July.

**No allocated hours.

Similar to previous cycles, the total compulsory instruction time was also reduced in ISCED 2, from 90 (1989) to 75 hours. With this reduction the three subject areas considered together had a slight valuation. After a minor reduction, Portuguese and Maths had their relative weights readjusted and, contrary to the previous cycles, physical and natural sciences had a small increase in terms of their relative weight.

3. Evaluation and assessment: the new framework for curricular regulation

In the Portuguese case, the reforms made via curricular changes were accompanied by a strengthening of the instruments used in the external assessment of schools and student performance. The OECD report entitled *OECD Reviews of Evaluation and Assessment in Education: Portugal*

(Santiago, P., Donaldson, G., Looney, A., & Nusche, D., 2012) considers that the 2002-2012 decade established the foundations of a “framework for evaluation and assessment”, highlighting a set of initiatives that “clearly communicate that evaluation and assessment are priorities in the school system and reveal a coherent and comprehensive agenda to develop an evaluation culture among school agents” (p. 9). The Report employs the terms “assessment” and “evaluation” to refer to the assessment of students and the evaluation of the system, respectively.

These changes to the assessment system correspond to a movement seen all over the world given that they complement decentralisation policies and increase the autonomy of schools, employing regulating instruments that preferably act on the performance results of schools and students (Barroso, 2005; Maroy, 2013). Resorting to a system of external evaluation of schools and the institutionalization of national exams distributed along the education path was probably one of the changes that had the greatest impact. Often based on the need to “promote the quality” of the education system, these instruments have assumed a significant power to regulate curricular development and learning, complementing the successive curricular reforms.

3.1 External evaluation of schools

Since 1986, Article 49 of the LBSE (Law No. 46/86, of 14 October) had foreseen the regulation of the education evaluation system. However, it was only in 2002 that Law No. 31/2002 was approved to regulate the education evaluation system, integrating the external school evaluation under the Ministry of Education.

Although the first steps for the construction of the evaluation model had been taken at the end of the 1990s, the school evaluation was only explicitly allocated to a central service by Regulatory Decree No. 81-B/ 2007, of 31 July, which put the General Inspectorate of Education (IGE) in charge of “participating in the school evaluation process and support the development of any related activities” (Article 3(i)).

The first cycle of external school evaluations was conducted from 2007 to 2011. In 2011, the second cycle of external school evaluations started (and is still being conducted) and introduced some changes to the reference framework for the evaluation. The evaluation is now focused on 3 domains and 9 fields for analysis: 1) The Results domain includes: i) Academic results; ii) Social results; and iii) Community’s recognition; 2) The Provision of the education service domain includes: i) Planning and articulation; ii) Teaching practices; and iii) Monitoring and assessment of learning; 3) The Leadership and management domain includes: i) Leadership; ii) Management; and iii) Self-evaluation and improvement.

Student results are measured via internal and external assessments and results are weighed using an estimated figure that IGEC considers the “expected value” based on variables tied with the socioeconomic context of the school (IGE, 2011). The results obtained by students in those exams serve as a barometer to assess and monitor the “quality of education” among other indicators.

IGEC's Report published in 2011 recommends the revision of the purposes of the new evaluation model that should be defined as follows: i) "promoting learning progressions and student results", highlighting priority areas for improvement in the pedagogical work of schools; ii) "increasing accountability at all levels", encouraging self-evaluation practices of schools; iii) "supporting the participation of the educational community and local society in school activities" to raise awareness to the work of the school; iv) "contributing to the regulation of education" by providing the political representatives and school administrators with relevant strategic information (IGEC, 2011, p. 10).

Another relevant detail: school evaluation reports are published on the official site of IGEC. The principle of "accountability" and the promotion of the "quality of the public service" have relaunched IGE as the regulator of the education system with powers that go well beyond the traditional bureaucratic and inspective regulation in terms of the assessment of legal compliance (Justino & Almeida, 2016, p. 37).

3.2 (Re)emergence of national testing in Portugal

National tests are understood in this study as standard assessment tests that may be compulsory or optional, organized at the central level, with common administration and grading procedures, that can have implications to the student's education path (Eurydice, 2009). From the 1990s onwards, the exams introduced in the Portuguese education system included in this definition have consisted in national tests of educational progress, national exams, and intermediate tests.

The national tests of educational progress are external standardized tests with an educational purpose that, on the one hand, play a regulating role in the teaching-learning process, controlling "the student performance level" (Order No. 5437/2000, of 18 February, preamble) and sending the results back to the schools; and, on the other hand, control the efficiency of the education system "aiming at contributing towards the decision-making process by improving the quality of learning and encouraging social trust in the education system" (Order No. 5437, 2000, of 18 February, paragraph 1).

The Office for Educational Evaluation (GAVE) created in 1997 was the central service of the Ministry of Education whose job was to plan, coordinate, make, validate, apply, and control external learning assessment instruments, data processing, and their disclosure, as well as to participate in international studies and projects targeted at learning assessment. These tasks have passed on to the Institute for Educational Evaluation (IAVE) created in 2013.

The national tests of educational progress were created in 1992 and encompassed Portuguese and maths. However, these tests were only administered to students attending basic education eight years later, in 2000. In that year, they were administered to 4th grade students, and subsequently to 6th and 9th grade students in 2001 and 2002, respectively. They have been applied every year since then, either to samples of students or to the whole universe.

As seen in Table 4, the national tests of educational progress for the 9th grade ended in the 2004/2005 school year and were replaced by the compulsory national exams in Portuguese and maths.

Table 4: Introduction of national educational progress tests in the Portuguese education system

	1992	2000	2002	2005	2007	2012	2016	2016
Act	Legislative order No. 98A/1992, of 20 June	Order No. 5437/2000, of 18 February	Order No. 2205/2002, of 28 January	Legislative order No. 1/2005, of 5 January	Order No. 2351/2007, of 14 February	Decree-Law No. 139/2012, of 5 July	Decree-Law No. 17/2016, of 4 April	Legislative order No. 1-F/2016, of 5 April
Subjects	Portuguese and maths	Portuguese and maths	Portuguese and maths	Portuguese and maths	Portuguese and maths	End of every test.	-	In the 2 nd grade: Portuguese, maths, environmental studies, expressions; 5 th and 8 th grades: Portuguese or maths alternated with others.
Grades	4 th (1998)	4 th , 6 th , and 9 th	4 th , 6 th , and 9 th	4 th and 6 th	4 th and 6 th	-	2 nd , 5 th , and 8 th	2 nd , 5 th , and 8 th
Population	Sample - Pilot project	Universe : only students in the public education system	Universe in two consecutive years followed by a year with a sample*	Sample	Universe : public and private schools; Order No. 10534/2011, of 22 August: Universe and annually	-	Universe : Mandatory application	Universe : Mandatory application

No effects on the student's academic progression

Source: Legislative order No. 98A/1992, of 20 June;

*Order No. 474/2003, of 10 January: sample; Order No. 1911/2004, of 28 January: universe only for the 9th grade.

The national tests of educational progress administered to the 4th and 6th grades were later replaced in 2012 by national exams. The current left-wing government that took office in November 2015 suppressed those two

exams and reintroduced the national tests of educational progress in 2016, but this turn administered to 2nd, 5th, and 8th grade students making them universal and mandatory. For the first time, these national tests of educational progress that were taken at the end of each cycle started to be taken in intermediate years. In the 2nd grade the assessment process includes Portuguese, maths and, for the first time, environmental studies, and artistic and kinetic expressions. In the 5th and 8th grades, the assessment process includes Portuguese or maths and, alternately, one of the other subjects, which allows for a full coverage of the subject areas of the curriculum without ensuring the annual continuity of the tests.

National exams, also termed “national tests” are external standardized tests that are mandatory and summative and have an effect on the academic progression of the student. However, since they weigh 30% in the assessment of the students at the end of the respective cycle, they end up reducing by only around 1% the number of students that fail the year.

According to the IAVE, the institution in charge of making those exams is the National Jury of Exams (JNE), the central service of the Ministry of Education that organizes the external assessment of learning, the validation of student access conditions to exams, and the subsequent certification of their curricula and the publication of the results on their respective site.

By implementing national exams, the Ministry of Education guarantees that the national curriculum is taught at schools all over the country. In accordance with the legal provisions, the purposes of internal and external summative assessment are: 1) Regulating the teaching-learning process by “supporting the education process” and guaranteeing the suitability of the pedagogical process to student needs; 2) “Certifying the different types of learning and competencies acquired by students” at the end of each cycle of basic education, associated with the selection objective that controls the academic progression of students and guides them towards certain academic paths; 3) “Contributing to improve the quality of the education system, encouraging decisions that will improve it and promote a larger social trust in its operation” (Legislative order No. 1/2005, of 5 January, Chapter I, paragraphs a, b, and c).

Both the IAVE and the JNE guarantee the publication of these tests and their respective results. This is an extremely important process given that generalized access to exams and their results facilitates their appropriation by the media and the public opinion. Both through the regular publication in the media of the rankings of results obtained by each school, and through studies carried out by research institutions or non-governmental organizations, the processes of social mobilization and control is encouraged, thus contributing to the institutionalization of regulating mechanisms that are external to the education system.

For all intents and purposes, the principle of accountability legitimates the significant increase of social pressure over the education system aiming at improving student results. Compared to external evaluation reports published by IGE, whose disclosure and usage is very limited, the publication of the results obtained at each school and of the content of the exams has a controlling and socially regulating effect that did not exist prior to 2001.

The third type of external assessment of learning was implemented by the creation of intermediate tests. This was an experiment developed by IAVE that relied on summative tests that were indented to be a formative assessment instrument, filling in some gaps that had been pointed to the national educational progress tests and the national exams. Introduced in the 2005/2006 school year, their application depended on the willingness of schools to use them. Designed at the central level, their application in schools had to comply with a set of common rules and was simultaneous all over the country. After students had taken the tests, these were sent to IAVE, where they were graded and then a detailed and systematized report on the performance of each student was sent back to the school. Similar to all the other exams, these progress tests and their respective results were publicly disclosed.

Initially targeted at secondary education, they were progressively extended to the 3rd and 1st cycles in the 2007/2008 and 2010/2011 school years until they ended up being suspended in 2014.

The intermediate test project had the following aims: “permitting the acquaintance of all the participants with external summative instruments and, on the other hand, allowing students to be aware of the progression of their learning, and regulating teacher practices with reference to national performance patterns” (IAVE, Relatório de Atividades [Activity report], 2014, p. 11).

Table 5: Number of intermediate tests and respective subjects in the basic education system

		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
1 st Cycle					Port: 2 nd , 1	Port: 2 nd , 1	Port: 2 nd , 1	Port: 2 nd , 1	Port: 2 nd , 1
	No. of Tests				Maths: 2 nd , 1 2	Maths: 2 nd , 1 2	Maths: 2 nd , 1 2	Maths: 2 nd , 1 2	Maths: 2 nd , 1 2
	No. of Subj.				2	2	2	2	2
3 rd Cycle					PC: 9 th , 1	PC: 9 th , 1	PC: 9 th , 1		
					NSc: 9 th , 1	NSc: 9 th , 1	NSc: 9 th , 1		
					Geo: 9 th , 1	Geo: 9 th , 1	Geo: 9 th , 1		
					Hist: 9 th , 1	Hist: 9 th , 1	Hist: 9 th , 1		
					Eng: 9 th , 1	Eng: 9 th , 1	Eng: 9 th , 1		
				Port: 9 th , 1	Port: 9 th , 1	Port: 9 th , 1	Port: 9 th , 1	Port: 9 th , 1	
		Maths: 8 th , 1	Maths: 8 th , 1	Maths: 8 th , 1	Maths: 8 th , 1	Maths: 8 th , 1			

	Maths; 9 th ; 2	Maths; 9 th ; 2	Maths; 9 th ; 2	Maths; 9 th ; 2	Maths; 9 th ; 2	Maths; 9 th ; 2	Maths; 9 th ; 2	
No. of Tests	3	3	4	9	8	7	2	
No. of Subj.	1	1	2	7	7	7	2	
Total								
No. of Tests	3	3	4	11	10	9	4	2
No. of Subj.	1	1	2	9	9	9	4	2

Source: IAVE and Ferreira, 2015.

N.B.: We indicate the subject being tested, the grade, followed by the number of tests made available.

Caption: PC - physics and chemistry; NSc - natural sciences; Port - Portuguese; Hist - history; Geo - geography.

Regarding the 3rd cycle, there were 3 stages of application: 1) 1st stage: at these stage maths and Portuguese were tested, since they would be subject to external assessment exams in the 8th and 9th grades, a year and some months later. It is important to highlight the application of two intermediate tests in the 9th grade before the national exam; 2) The 2nd stage started in the 2010/2011 school year and extended these intermediate tests to other subjects without any correspondence to external assessment exams: history, geography, natural sciences, English, and physics and chemistry; 3) 3rd stage, which corresponded to the last year of the application of intermediate tests, when the subjects were again reduced to those that would be subject to external assessment.

In the 1st cycle, intermediate tests are now applied in the 2nd grade only at Portuguese and maths to diagnose learning problems at a very early stage, which allows for a timely intervention.

4. Participation of Portugal in international studies

Ever since 1991, Portugal has been participating in international studies aimed at providing a comparative analysis of the results of tests administered to representative samples of students that attend different grades. Table 6 summarises the following information regarding the different studies in which Portugal has participated in recent years: promoting entity, characterization of the respective samples, and date of administration.

Table 6: Participation of Portugal in international studies, 1991-2015

Assessed cycles	International studies	Sample				Fields
		No. of schools	No. of students	Grades	Average age of students	
1 st cycle	IAEP 1991	132	1419	3 rd e 4 th	9	Maths and sciences
	TIMSS 1995	157	5503	3 rd e 4 th	9 e 10	Maths and sciences
	TIMSS 2011	147	4042	4 th	10	Maths and

						sciences
	PIRLS 2011	148	4085	4 th	10	Reading literacy
	TIMSS 2015	217	4693	4 th	9.9	Maths and sciences
	IAEP 1991	93	1510	5 th to 9 th	13	Maths and sciences
2 nd and 3 rd cycles	TIMSS 1995	141	3362	7 th	13.4	Maths and sciences
	TIMSS 1995	142	3391	8 th		Maths and sciences
	PISA 2000	153	2545	Up to 10 th	15.6	Reading, maths, and sciences
	PISA 2003	153	4608	7 th and following	15.9	Reading, maths, and sciences
3 rd cycle and secondary education	PISA 2006	173	5109	7 th and following	15.8	Reading, maths, and sciences
	PISA 2009	214	6298	7 th and following	15.8	Reading, maths, and sciences
	PISA 2012	195	5722	7 th and following	15.8	Reading, maths, and sciences
	PISA 2015	246	7325	7 th and following	15.8	Reading, maths, and sciences

Source: Gertrudes Amaro, *Resultados da Avaliação Externa em Matemática no Ensino Básico*. Unpublished study carried out in 2003, adapted with the author's permission. AQEDUTO Project, information collected by Isabel Flores.

Portugal has been participating in international studies for almost twenty-five years. During the 1990s, this participation was limited to some subjects and some grades. Only after 2000 did this participation become more regular, mostly due to the effect of the PISA tests and the institutional weight they carry (OECD).

While the first studies carried out by IAEP II (Second International Assessment of Educational Progress) did not attract much attention of the media and the public opinion, the results obtained by Portuguese students in the TIMSS (Third International Math and Science Survey) were widely publicized and gave rise to much controversy due to the modest position of Portugal. It is likely that the effect of these results on education policies eventually led to the adoption of measures aiming at implementing instruments to evaluate schools and assess student performance.

Conclusion

Both the first national tests of educational progress and the first attempts to create an external evaluation model for schools are prior to the publication of the results of PISA 2000, a fact that eliminates any causal link.

However, the awareness of the low level of educational development of the Portuguese students uncovered by TIMSS and the high dropout and school failure rates somehow generated a favourable context for those reforms.

PISA studies gave continuity to a trend that had been started before. Their regularity, technical accuracy, and easy readability transformed them into the principal means of diagnostic at the international scale. These studies have guided the country towards a result-based assessment system that is comparable and contextualized. The principles of accountability and transparency imposed via the regular publication of school results have gained strength in national policies themselves.

These same principles have not only guided the external assessment of learning but also the institutionalization of the external evaluation of schools. National tests and the publication of their respective results (which are now used in the external evaluation of schools) have introduced a new and powerful mechanism to regulate the education system that had never been seen before. However, their effect would be much reduced if those results were not publicized by the media and appropriated by the public opinion. Here we find a double regulating effect: by means of the education administration and the pressure of public opinion.

The effect over the curriculum and curricular development could not be greater. Before the publication of the PISA 2000 results, the Portuguese government had approved a reform that resulted in the introduction of non-subject areas and the principle of flexible management of the curriculum of the basic education system. This innovation resulted in the decrease of the relative weight of the fields assessed by the international studies. However, in subsequent years, the series of small reforms and adjustments tried to offset that decrease. The new curricular plans have defined hours and established minimum values for what is considered elementary or fundamental knowledge that has to be acquired by students and that coincides with the fields assessed by PISA.

The balance of some of those changes to the curricular plans and matrices has resulted in the reestablishment of some hours, namely as far as maths is concerned and a little less in the case of Portuguese. From the three domains, the scientific literacy is the one that has lost the most, particularly in the first 6 years of school (ISCED 1). In this sense, we can say that the induction effect caused by the PISA studies in the curricular plans was uneven.

More effective was the adoption of a new external framework for the assessment of learning. Although the first initiatives had been launched even before the publication of PISA 2000, they would end up covering every cycle of education over the twelve school years. Since 1998, there have been exams in the 12th grade. In 2005, the first exams before the 9th grade were applied, and in 2012 and 2013 the exams of the 6th and 4th grades were introduced replacing the tests of educational progress that had served as the basis to launch the final exams at the end of each cycle.

The effect of the introduction of national exams focused on two subjects (Portuguese and maths) was much more significant than the successive changes to curricular plans, namely due to its appropriation by schools and

teachers. The pressure of the “preparation for the exams” increased progressively and extended to every education level.

In this context, subjects such as Portuguese and maths have been given greater prominence when compared to the remaining fields of the curriculum. Conversely, this has not been the case with sciences. Therefore, the “strictly curricular” thesis gains more importance, although it has not been so evident in the successive curricular plans, but mostly in its appropriation by schools and teachers, largely conditioned by the effect of national exams.

Notes

1. The present paper results from a communication presented by the authors on the 3rd *European Conference on Curriculum Studies Curriculum: Theory, Policy, Practice*, which took place on 16 and 17 June 2017 at the University of Stirling;
2. ISCED 1 corresponds to the first 6 years of school, divided in the Portuguese education system into the 1st cycle (4 years) and the 2nd cycle (2 years). In the curricular matrices of the first 4 years of compulsory education, Environmental Studies is a curricular area that integrates geography, history, natural sciences, and physics, but does not discriminate the compulsory instruction time per subject. Conversely, in the 5th and 6th grades, that time is discriminated per subject. This prevented us from aggregating the 6 years and calculating percentages per subject as we intended. Therefore, we decided to present disaggregated figures, separating the 1st and the 2nd cycles of compulsory education in Portugal.

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