

How To Support And How To Abandon Teachers In The Battle For Educational Success. The Experience Of Portugal Between 1995 And 2020

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Abstract

Between the final years of the 20th century and the first two decades of the 21st century, education in Portugal underwent several changes. As a result, the situation improved almost continuously until 2015. That was the year when Portugal achieved its best results ever in the international PISA and TIMSS comparisons. It suffered some setbacks from 2016 onwards, as revealed by the 2018 PISA and 2019 TIMSS results. This article analyzes the main factors of this evolution, highlighting the training of teachers to perform their tasks well

Keywords: educational policies; educational assessment; resume; teacher training; history of education; PISA; TIMSS.

1. The Portuguese context

The education of a country is always the product of many decades of evolution. It is true that concerted and energetic measures can change a country in one or two decades, as was verified in the post-war in East Asia, and it is always difficult to understand the evolution of an educational system without reflecting on it for a long time. Portugal is not an exception.

According to the Population Census of the Kingdom of Portugal on December 1 , 1900, only 26% of Portuguese people aged 7 or over are literate. This number drops to 22% and includes only adults between 50 and 54 years of age. The

progress towards the constitution of a legal society in Portugal was very slow. Between 1900 and 1930, the percentage of Portuguese literate with 7 or more years of age went from 26% to 38%, rising 12 percentage points. Between 1930 and 1960, the percentage of Portuguese literate in the same areas rose to 70%, which corresponds to an increase of 32 percentage points (Candeias & Simoes, 1999).

These data are the result of a very limited school system. Only in 1956, compulsory schooling was extended from three to four years, and only for children. In 1960, the expansion also included rape. In 1964, mandatory schooling increased for six years. In 1986, it was extended to the ninth year and, in 2012, the twelfth year.

The advances achieved in the last decades of the 20th century are extraordinary. With the general joy of economic conditions starting in the 1960s, the euphoria of a baby boom , the establishment of democracy, the entry into the European Community with two European structural funds, schooling was radically expanded in the silent country. In 2001, the percentage of literates rose to 91% (FFMS, 2022).

All of these successes are essentially quantitative. It will not allow, however, to elevate young people to reasonable levels of education and preparation for modern life (Crato, 2020; 2021). The country debated this topic at length. Columnists and analysts divide themselves. On the one hand, politicians cannot and professors in schools and education departments defend politics immediately. On the other hand, intellectuals and academics from other areas criticize what they understand to be a laxist teaching influenced by a romantic vision of education. ¹

The debate was essentially ideological, or even philosophical, very limited empirically and somewhat sterile. But things will change.

2. Or TIMSS and PISA clash

In 1996 and 1997 we checked the news of the TIMSS ² study of 1995 and verified that the Portuguese students were among two participants. Only two tinham countries have recorded worse results. Seguiu-se um debate. Naturally, we have already confirmed your intuitions. And, as always, we devalued the data, saying that we were not in competition with other countries, that we were not better or worse, that our evaluations were “reducing” (Crato, 2006a). The government devalued the results and made a decision typical of organizations that seek to steal their endorsements: they decided not to participate again in TIMSS.

Meanwhile, the OECD, Organization for Economic Cooperation and Development, will decide to organize another large-scale international study, or PISA ³, and most two European countries have decided to join this study. The Portuguese government also added; From boa vontade or upset, it doesn't matter.

The first PISA data were tested at the end of 2001 and the results of the Portuguese students were very unsatisfactory. There is no doubt that education has not reached a level of reasonable quality. It was very difficult to keep things as they were.

Meanwhile, as public pressure increased and serious judicial threats increased, the government finally decided to give in to a battle that had dragged on for years. Journalists and various associations aim to obtain the average results of secondary school exams, the only ones currently in existence. O governo opunha-se. But in the new political situation he was forced to give in, and the results of 2001 became public.

It became clear that schools play a decisive role in the formation of students. In rich or middle class areas, there were schools that had good results and schools that had poor results. In disadvantaged areas, there were schools that had poor results and schools that achieved good results.

Public opinion can then draw two conclusions: the worst school results are not just a fatality, and not all schools do the same quality work.

Meanwhile, with the new government, 9th year final exams have been instituted, at the height or year of completion of compulsory schooling. The subsequent results of these exams would confirm the same idea: not all schools do a job with the same quality.

All this has increased public pressure on schools and teachers to promote the education of their students. Contrary to what many people think, I maintain that this pressure is not negative – it is positive and translates into the efforts of families and society.

Meanwhile, the results of PISA 2003 are slightly better, but the results of 2006 are stagnant, and more press has been introduced on the results. A new government began the 9th year exams, highlighted mathematics as a priority and instituted a plan of action (MEC, 2006). Support also a support plan for reading ⁴. It is true that both planes have limitations, it is also true that there is a step in front, especially in attention to the results of these fundamental disciplines.

In parallel, the school system has two school manuals ⁵, and then only in each school. Forum created validation and certification commissions focused on the scientific quality of their content, and the manuals are significantly better.

In 2009, a new government decided to structure the curriculum better and create learning goals, a kind of organized list of objectives (learning

outcomes). Everything is increased by pressing on the results and made easier to suit you.

It is noteworthy that all these progresses have been achieved by governments of different parties. In the period from 2001 to 2011, six ministers will essentially pursue the same direction: greater attention to learning outcomes. These ministers were appointed to office by different parties. Not much of a divergence, sometimes many accidents, or the general path always points in the same direction.

Figure 1 shows that the best results have always been obtained in 2015 thanks to a policy of more than a decade of attention to the results and betterness of the curriculum and assessment. When that policy was reversed, the results were worse.

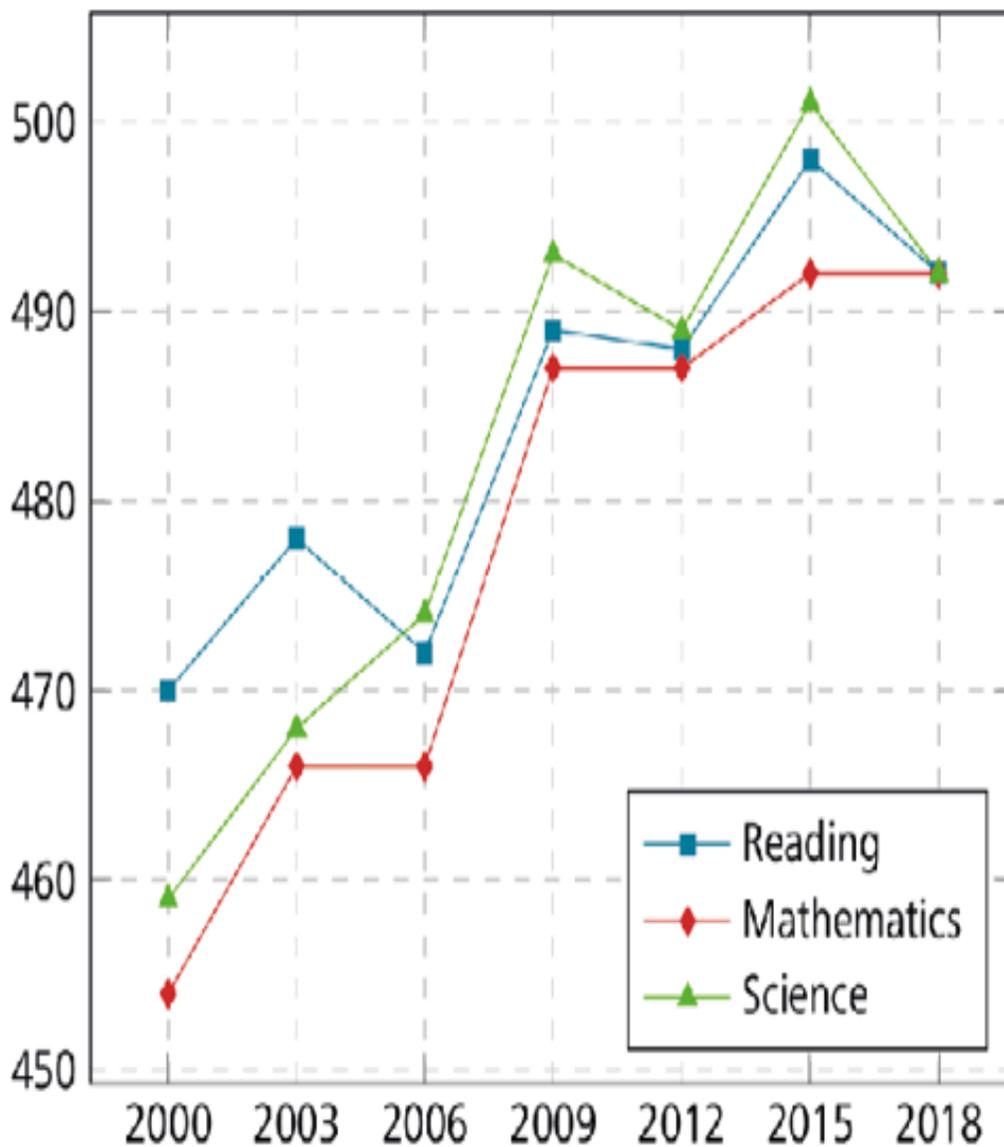


Figure 1. Evolution of two Portuguese results from the beginning to the last PISA survey.

Source: based on OECD data obtained from NCES (2022).

3. The educational policy continued between 2011 and 2015 and was revived in 2016

In 2011, with a new government, this effort to pay attention to the curriculum, to the assessment and to the results was carried out intentionally and consciously. While previously the various policies were still involved in a romantic and constructivist roudagem, just as contradissem this roudagem, the new policy was conscious and explicit. Previously, for example, it could be said that “to avoid repetitive memorization and promote meaningful learning, it is important that students face learning situations with mathematics problems applied to real situations.” The new equipment goes on to say, for example, “memory is an important component of learning mathematics that helps to develop a more profound understanding of two concepts, understanding that must be reinforced for the solution of problems, among others those that apply mathematics to “real situations.” The result is apparently the same, and it could be the same: encourage teachers to indicate to the students some mathematics problems with real applications, or that it is always positive.

But at first formulation there are several risks: that memory is neglected, that the need to practice the concepts with more immediate problems and without applications is neglected, that two concepts are skipped for more advanced problems without giving some years to the possibility of consolidating the knowledge , which spreads to the idea that abstract problems do not promote significant learning, or seja, a learning in which new concepts are related to previous knowledge (Ausubel, 1963). Finally, the risk is to return to learning mathematics, or of any other discipline, a collection of applied problems that allow us students to develop dispersed approaches, without learning to structure two abstract concepts.

In the next section we will better develop these and other problems that were faced during the mandate from 2011 to 2015. Despite the tremendous economic and financial crisis, in the same period we registered several other important progresses, not least the introduction of English as a mandatory discipline throughout Seven consecutive years of schooling, extending mandatory schooling from new to 12 years, reduces school dropouts from 25% to 13.7%.

In 2016, a new revolution begins in the face of a new government, supported by an unprecedented alliance in Portugal: socialists, communists and radical leftists. The first measures of the new government will end with a significant part of the assessment that has been promoted: forams abolished as the final tests of the 4th and 6th year of schooling and a test of access to teaching for the teaching candidates. Then, foram promoted as calls “Aprendizagens Essenciais”, many criticized for being a dilution of two cognitive objectives and for being a disconnected list of topics. This decision devalued the previous programs and goals, which in the meantime were maintained, but on an advisory basis. All the official and informal communications of the new team and two responsible ministers are critical in relation to the policy of demand and rigor previously followed, which was stigmatized as an elitist policy. The final blow to the curriculum was given and made official ^{on} 5 in 2021, with the abolition of all the programs and goals that have been addressed in the “Essential Learning” series.

This revival is a long process that has been initiated at the beginning of the century by various governments of various parties and orientations on various aspects, namely the extinction of a large number of private schools with association contracts and the reinforcement of a series of positions claimed by the most radical unions . In a moment of divergence between the government and the unions

regarding the remuneration of the public service, the minister saw Lume promising to “fight radically for the direct treatment of two professors” (Lusa, 2017).

Assiste-se então a um movimento duplo. On the one hand, there is a return to pedagogical policies of a constructivist nature based on modern science and educational experience. On the other hand, we defend ideological positions favoring the concentration of education in a very uniform public school in terms of hiring and salary policies, without an endorsement that potentially contradicts this uniformity and, therefore, promoters of a teaching corporatism detached from priority, that is the training of two young people. By all accounts, I would say that it is an ideological-corporatist regression that has caused the country to return to a past age of nearly 20 years.

4. Educational policies of 2016 break with the progress of decades

It is not the objective of this article to criticize the government that happens, but it is necessary to characterize and characterize it above all in pedagogical aspects. This demarcation is essential to be able to perceive how progress has been made and how it has been recovered.

It is also necessary to clarify the different moments, so that we do not witness a phenomenon similar to what happened with Finland. In the first editions of the PISA study, this country obtained excellent results and two European average results were very notable. There followed a very great interest in the Finnish school, which originated an authentic educational tourism, with successive visits to schools in the country and with several works praising the Finnish results. But when this reaction began, around 2006, the results of two young Finns not in PISA began to recover. This collection was systematic starting this year. Now I study, I am seeing Finland presenting worse results. It is the result of a much less organized

and structured system than that which led this country to the excellent results of the beginning of the century. In conclusion, Finnish enthusiasts believe that the policies we observe are the same as those that will lead this country to good results in the first editions of PISA. Louva-se então the current Finnish system, causing a significant setback, instead of studying the previous policy, which led to the success of this country.

It is important that the same does not happen with Portugal. Many analysts, professors and educational organizations have recently expressed great interest in Portugal. But Portugal began to decline in international results after the change in educational policy. It is important that the previous policies be studied, that we will achieve important progress for our country and that it is not proven that the current policies that will achieve this success. Portugal is not the country that was in 2015, the year in which it obtained the best international results ever. That is why it becomes important to contrast different policies.

To fix ideas, we can summarize in a very general way the evolution of education in Portugal in the last 50 years with the following division:

- *Authoritative period* – At the beginning of the democratic revolution of 1974: Extremely centralized and uniform, with very marked social inequalities
- *Romantic period* – From 1974 to the beginning of the 21st century: Social euphoria, massification of basic education (elementary and medium), diffusion of romantic and constructivist ideas
- *Pragmatic period* – From 2002 to 2015: Pay attention to results, significant improvement in curriculum and assessment

- *Period of conhecimento* – From 2011 to 2015: We could consider this period just a phase of the previous period, but I highlight here because it was a phase that consciously broke with the idea of a constructivist curriculum based on competencies and due primacy to a based curriculum not knowledgeable, structured, ambitious and focused on the essential disciplines and a systematic and frequent assessment of two students.
- *Ideological-corporate period* – From 2016 to current (2022): Complete breakdown as in the previous 15 years, undermining the structure, rigor and curricular ambition, removing various forms of external endorsement, promoting the corporate interests of professors to the detriment of one progress policy for two students.

5. Why is education in Portugal better?

The reforms launched between the school years 2011-2012 and 2014-2015 consciously aim to obtain quality learning. Basearam-se num experienced and trained teaching staff, which is the basic condition of any educational progress (Hanushek et al., 2019). And fulfill a clear plan. Following a system that we have no opportunity to do (Crato, 2020), and alert the reader to some repetition, we can group them in some essential areas.

5.1 A demanding and structured curriculum

Everything comes with the curriculum (Crato, 2019) , as we have made clear and repeated in our debates on educational reform. The curriculum defines the learning objectives, and these constitute the starting point for any educational system. In Portugal, the curriculum is centrally defined and approved by the minister. To establish the new standards and programs, we created groups of specialists from each discipline.

5.2 Curriculum based on knowledge and competencies

O conhecimento se em primeiro. Even when we emphasize capabilities, so-called competencies, attitudes or civic objectives, the school loses its purpose if it does not transmit knowledge. We are advocates of critical thinking, active learning and the application of knowledge, for example, we should not argue that knowledge is based on civic participation, critical thinking and action. It is necessary to be clear: without a base of substantial knowledge, students cannot obtain an appreciation of any subject, develop advanced capabilities, progress in any career or achieve a high level of knowledge and capabilities in any subject (Crato, 2022). . When we emphasize capabilities and competencies (kills), we may be losing knowledge, suggesting that capabilities are primarily associated with a domain (domain-based). Generic capabilities are difficult to develop and their transfer is very limited.

The discussion gives priority to knowledge versus competencies in curriculum development in an old discussion (Crato, 2006a; 2006b). One of the sources of confusion is the very concept of competencies. At times, this concept is very vast, encompassing knowledge, application skills, attitudes and other components of the general curriculum. When this happens, the discussion becomes sterile, because it means that competencies encompass all the concepts and do not help to establish priorities.

More recently, competencies have been understood as capabilities, more specifically, capabilities of application of knowledge⁷. Certainly, knowledge and capabilities are indissociable. But saying this is not enough. What is important is to perceive how the curriculum should be developed. What is the basis of our knowledge or capabilities?

Posts as questões in this pé, it becomes clear that the knowledge must be at the base, at least not general and basic, once it does not teach professional or vocational, directed directly to the preparation of the immediate performance capabilities of a technical profession, or problem assume configurations are a little different.

Solely or with knowledge by base it can be structured or taught in a connected, systematic and progressive way. If the teaching is organized based on the application capabilities, the subjects become disconnected and the progress of the students is very difficult, so as not to be impeded. Organizing or teaching based on knowledge, learning becomes cumulative, relating new knowledge with previous knowledge and promoting a coherent vision of the subjects. Organizing or teaching based on applications, learning becomes disconnected, appeals to memorization and not to comprehension and does not provide young people with instruments of critical and independent reasoning.

5.3 Disciplinary knowledge

Without solid and specific knowledge of each area, students cannot appreciate the discipline, they do not understand the structure of the knowledge area. Mathematics is not a collection of tricks, just as writing is not a collection of rules and literature is not a collection of grammatically correct sentences. This means that students need to acquire in-depth knowledge in various areas. The amplitude cannot and should not be achieved by promoting unstructured knowledge. Likewise, multidisciplinary can only be built on the basis of disciplinary. The disciplines are only a way for humanity to discover the world in a rational way.

5.4 Priority to basic knowledge

An illiterate child will always have a tremendous limitation if he or she cannot acquire fluency in reading. A child with mathematical deficiencies will always be limited if he or she does not develop basic arithmetic skills, elementary skills in analyzing dice graphs, and rudimentary skills in formal logic (CESE, 2017).

The first decision to take a year is to develop a more demanding and more well-structured curriculum and define priorities. The priority was to focus the school on central issues and basic knowledge. This means that we allocate more time for mathematics and literacy from the beginning of basic education, and we organize the curricula of these foundational subjects better. Immediately, we expanded this priority to other core disciplines, such as history, geography, science, and English.

5.5 Ter or curriculum as a reference

When we reorganized the curriculum, we decided to do a complete revision of two previous curricular documents: we made incremental changes, but all in the same direction. Thus, instead of rewriting the programs, we began to organize them by introducing new curricular goals⁸, with multiple pedagogical purposes:

- Clarify the basic topics that students must master.
- Establish the desired levels of achievement for each topic.
- Be more demanding without the content of each basic discipline.
- Organize the topics in a more well-structured and clearly progressive way.

At the same time, these goals were intended to be clear to everyone involved:

- Teachers would understand best what objectives students should achieve.
- We can help your children better and verify how they are programmed.
- The authors of educational books² know best what is expected of them.

5.6 Promote frequent and reliable validation

It is known that the endorsement must be aligned with the OECD/UNESCO curricular documents (2003) and that it takes various forms, serving multiple purposes (Morris, 2011; Roediger et al., 2011):

- National standardized high-stakes tests, specifically exams that can determine the repetition or continuation of studies; They are generally implemented at the end of an educational cycle (lower and higher fundamental education, middle and fundamental education).
- National standardized tests of low impact (low stakes), which function as inquirers of educational progress, without impact on the progress of students, schools or teachers.
- Tests prepared by schools.
- Class tests developed by each teacher.

It is also known that formative assessment has a highly positive impact on students' progress (William, 2018) and that external assessment helps the educational system of a country to progress (Bergbauer et al., 2021). The history of education in Portugal is always in line with these principles.

At the beginning of the democratic revolution of 1974, successive governments abolished many two national tests and attempted other types of validation. Only at the end of the 20th century a socialist government created a new general directorate in charge of organizing a table of more modern tests for the final secondary school exams (ME, 1997). The government itself introduced so-called “aferição tests”, standardized low-impact tests, which were applied to a sample and, subsequently, to the entire school population in certain years of schooling.

In Portugal, the system provides some information about the performance of two students. But, in just a few years, these statements of fact have been discredited in the eyes of the public. The fact that there was no impact on students, teachers or schools was a determining factor in the discredit. At the same time, many opinion leaders and some scientific societies, such as the Sociedade Portuguesa de Matemática (SPM), criticize the fluctuation in the level of difficulty of some exams. In fact, the average results of both exams will show fluctuations of around 50% from one year to the next. As it happened with mathematics in 2008, a change difficult to attribute to the performance of two students, leaving space for an explanation that the changes were due to a mau desenho das trials or also a deliberate reduction of their difficulty.

This situation led the government to introduce a reform. A law of 2013 created a new institute of avaliação, or Instituto de Avaliação Educativa (IAVE), with the task of organizing all external assessments for students, both high and low impact ¹⁰. This emphasis is on a result that has been confirmed by cognitive psychology, secondly, its evaluation reinforces the recovery of information, in order to help reinterpret and consolidate the knowledge (Roediger & Karpicke, 2006; McDaniel & Callender, 2008). This decree-law of 2013 may be one of the few legislative pieces that directly cites the results of cognitive psychology.

5.7 Dedicate special efforts to reduce school dropouts and promote school success

The application of a demanding curriculum and a standardized assessment has been the subject of much controversy in recent decades. Some will argue that these two factors reproduce social inequality and harm disadvantaged young people. We defend on the contrary: a serious education and a reliable endorsement, which

follows national standards or, at least, regional ones, is the only way to help disadvantaged students prepare for an active, productive and independent life.

OECD (2016) itself acknowledged and referred to Portugal as an example of how it is possible to simultaneously support the most advanced students and help those with the most difficulties:

Macau (China) and Portugal were able to 'move everyone up' in science, mathematics and reading performance over the past decade by increasing the number of top performers while simultaneously reducing the number of students who do not achieve the baseline level of skills. Their experiences demonstrate that education systems can nurture top performers and assist struggling students simultaneously (OECD, 2016, p.266).

I think we adopted a moderate and effective approach. In addition to striving to achieve high academic standards, we devise a series of measures to help the least prepared students to improve and, at the same time, allow the most advanced to advance. These measures were established by a decree-law of 2012 and complemented by regulatory legislation that provides or supports students with academic difficulties (MEC, 2012).

5.8 Offer incentives for schools

With very limited funding and pressure from the IMF and EC to further cut costs, the incentives may also be very limited. Perhaps this ends up being positive, since economic compensation, as offered in other countries, appears to be very limited and is, not least, highly controversial. In return, the incentives offered are linked to the achievements of two individual results and constituted by resources directed towards these achievements.

Apart from traditional incentives, such as prizes and public awards derived from the dissemination of school results, the incentives concentrate on increasing two so-called school credit hours. These credits constitute an *acrésimo* in the teaching body, financing the hiring of additional teachers for specific purposes.

Starting in 2012, we developed a complex statistical system to define the criteria for attributing teacher credit granted to schools, and it is clear that these additional resources can improve the performance of students.

The system requires consideration of internal and external assessments of students, as well as repetition and abandonment taxes. As *escolas ganhavam* credit for:

- Improve the results of students in internal evaluations.
- Improve the results of students in external evaluations.
- Obtain good results for students from external endorsements.
- Reduce repetition and abandonment rates.

These credits were penalized by:

- Attribute higher grades to internal evaluations than those obtained in standardized external evaluations.

Also, the calculation of two credits considers school performance that has not happened recently, and could be adjusted based on historical changes.

The main criticism of this system is that it rewards schools that are better and punishes those that are not better. In my opinion, this “criticism” is, in the end, a praise for the system. The resources must be used essentially for the benefit of the students' best results and not to satisfy corporate interests.

5.9 School autonomy

This incentive system could only work by increasing the autonomy of schools. The motto between 2011 and 2015 was the opposite of what many governments support: we wanted freedom in our processes, more external validation of our students; Other previous governments want to modify pedagogical practices and avoid validation. Consequently, we control the processes instead of measuring the results.

The increase in autonomy allowed the centers to freely organize the workload of teachers, alter the affiliation of teachers and schedules and organize the disciplines by course or by cycle. More importantly, it allows schools to freely use their resources to implement measures to combat failure and promote school progress.

5.10 Parallel offers and professional training itineraries

Another important reform was a gradual change in the professional training system. After the democratic revolution, the different paths of professional training were suspended, but slowly re-established with the creation, in 1983, the ways of technical training and with the creation of secondary schools with professional training, in 1989. No entanto, or system of Professional training was very uneven and never tended to provide students with the training necessary to exercise a profession.

For many private centers, professional training is an undertaking totally dependent on public subsidies. For many municipal semi-private schools, it plays a political role in the hiring of teachers and technicians. In many cases, the focus was not placed on the training of students: the courses offered depend more on existing resources and possible or desired hiring of the needs of young people or the labor market.

In 2012, compulsory schooling was expanded from 9 to 12 years of schooling. Consequently, professional training for young people can go through and do part of the mandatory training, and so it happens.

Our moves are essentially oriented in two directions:

- Divide the professional training courses into two modalities: one for students who naturally opt for a less academic training, which prepares them for a technical profession, and another intended for students with academic difficulties and risk of dropping out, who need, temporarily or not, of more practical and applied activities.

Without this division, professional training would always be associated with the idea of a second school ¹¹.

- Associate industry with professional training. This association was conceived in a quite original way. Companies are called to collaborate from the beginning in conceiving two courses and in their realization, from the beginning of two courses to their final phase.

Embora as companies do not need to be remunerated for their contribution to the training of two students, who will add high grades to the programs. In this sense, we observe not only a generous contribution to the future of the country, but also a defense of business interests. As we contributed to meeting the needs of the labor market, we were preparing human capital for our area of activity. This was also a surprising trend. Companies make strong investments in professional training and provide human resources, training of teachers and material resources, such as access to hardware and factory machinery. Many times, we will contribute to the transportation and food of the students. First year, nearly 5,000 companies will participate in the program. No second, 12,000.

6. A balance of successes and retrocesses

The only external and minimally reliable validation that we have at this time is possible to verify the evolution of the Portuguese educational system based on international studies. We have already seen the results obtained in the PISA studies. Let's recapitulate the results of two TIMSS studies, because these are even more elucidative. Starting from a very low position in 1985, Portugal achieved gigantic progress and, in 2011, when it returned to TIMSS, the results are unreasonable. Between 2011 and 2015, Portugal achieved such progress that it surpassed countries considered models, as was the case in Finland.

With the reversal of policies reverted or progressed. Portugal deceu de novo for values lower than 2011.

The TIMSS results are particularly instructive, as they allow us to evaluate two periods that correspond to two different policies (Crato, 2022). Students who enter school in September 2011 immediately realize that the educational policy would be more ambitious. Nesse letivo, increaseu or minimum number of hours dedicated to Portuguese and Mathematics. It was a public that was working towards new goals in these two disciplines, and in 2013 these new goals were approved. New manuals were constructed and a standardized final test was instituted for the 4th year, which constituted the last school year of this first cycle of schooling. These students were validated by TIMSS in April 2015, knowing teachers, country and students, that there would be a final test within months.

The results of two Portuguese students in mathematics in the 4th year will rise significantly by 2015 due to an educational policy focused on the curriculum and the results of two students. When this policy is changed in favor of a general approach to competencies, the results will diminish. It is noted that, in 2015,

Portuguese students have achieved a higher ranking than two of their Finnish colleagues, given that Finland is usually considered an example of great educational quality (Figure 2).

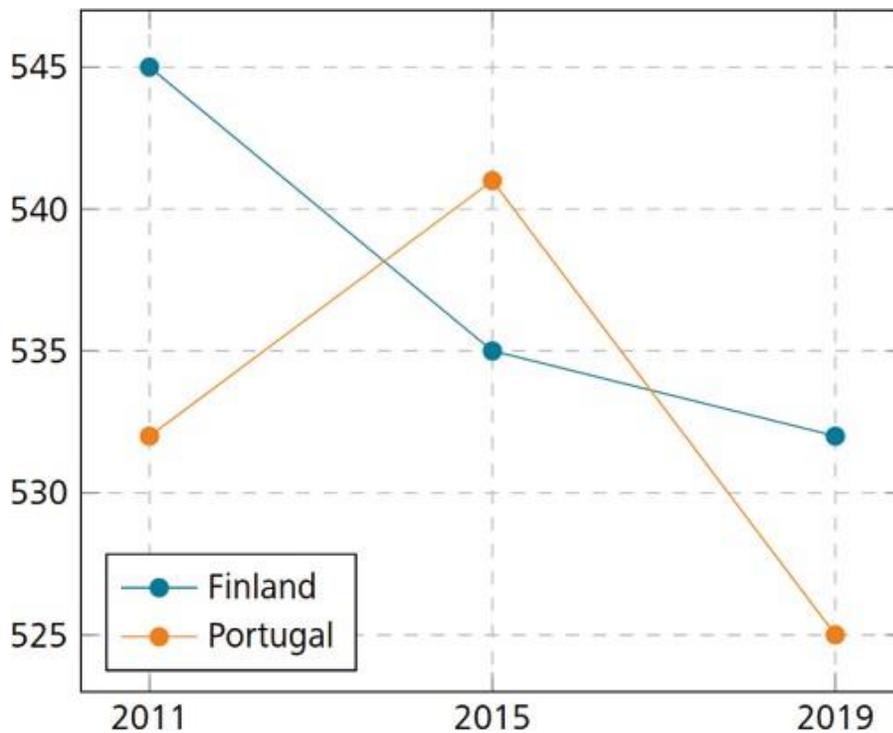


Figure 2. Results of two Portuguese students in 4th grade mathematics

Note: The graph shows all the years in which both countries participated in TIMSS.

Source: Data from Institute of Education Sciences (IES), <https://nces.ed.gov/surveys/international/ide/>

By contrast, students who entered in September 2015 learned in December that educational policy would change and that the new government placed among its priorities the reversal of curricular requirement and endorsement policies. In 2019, when these students are validated by TIMSS, they have gone through four years of

less demanding politics, teachers in the country have assisted in the public devaluation of the goals and curriculum of the government and the educational authorities and everyone knew that they would not exist until they ended, because *Elas Tinham* was abolished in January 2016.

O que se passou constitui aquilo que economists e sociologists chamam experiência natural: sin qualquer desígnio experimental, a situação mudou nos dois periods e isso permite testar eficiência das duas policies. If the situation changed for scientific reasons, creating a social experience, nothing had been different: a policy of demanding better results and a laxist policy for better results.

It is also worth distinguishing results by performance levels. It is sometimes argued that greater rigor can only be obtained by increasing inequalities and, therefore, rigor in educational demands has a perverse effect.

Tables 1 and 2 show what has happened over the last two years. As the average results rose, there was also a percentage of students with poor performance, the so-called “low performers” (terminology of the OECD, which promotes PISA and the IEA, which promotes TIMSS). This wonderful situation of students with the most difficulties is particularly visible between 2012 and 2015, for PISA, and between 2011 and 2015, for TIMSS.

By contrast, a less rigorous and less ambitious policy, as it was subsequently practiced, ended up promoting or contrary to what it had predicted. A percentage of students with a performance below the minimum desejável rose in the two assessments. This is the case for the famous aphorism: policies must be validated by their effects and not by their intentions.

Table 1. Percentage of students most classified and least classified in the three main domains of the PISA study in the last four editions of this study .

PISA – Portugal				
	2009	2011	2015	2018
Science: High-performers	4.2	4.5	7.4	5.6
Low-performers	16.5	19.0	17.4	20.2
Maths: High-performers	9.6	10.6	11.4	11.6
Low-performers	23.7	24.9	23.8	23.3
Reading: High-performers	4.8	5.8	7.5	7.3
Low-performers	17.6	18.8	17.2	19.6

Note: High performers > 4; Low Performers < Level 2

Source : Constructed based on PISA data obtained at <https://nces.ed.gov/surveys/international/ide/>

Table 2. Percentage of students most classified and least classified in mathematics in the 4th year of schooling and not studying PISA in all the editions of this study of this series in which Portugal participated.

TIMSS, Mathematics 4th year – Portugal			
	2011	2015	2019
High Performers	8	12	9
Low Performers	twenty	18	26

Note: High performers = level 4; Low Performers ≤ Level 1

Source: Constructed based on TIMSS data obtained at <https://nces.ed.gov/surveys/international/ide/>

7. A demanding curriculum and external validation will help the professors

How educational policies should we focus on teachers or students? It is a new debate, more difficult to place in our own terms.

As we have insisted for some years now (Crato 2002a), it is not focused on someone who has an origin ¹² and a content that is quite precise in pedagogy (Rosário & Almeida, 2005). It is a modern version of a preceito by Rousseau and others, which recommends developing the youth without the “tyrannizing interference of the adult individual,” to quote the Portuguese thinker Da Silva (1939). The free development of the educator, following only his interests and tastes, would lead to a free and trained adult.

Many people who say they are “not focused on anyone” repudiate this extreme vision. But we must all be confronted with the origin and meaning of this expression, in a way that is careful with how it is used and, above all, so that we can dialogue with awareness of the meaning of ideas.

Currently, the word focused on the individual, when it is a conscious conceit and not just an encouraging expression, is frequently understood as a message directed toward the student. But, as will be immediately realized, such a ditame is hardly adianta to any debate. Would it have been turned to burn?!

However, many times, in reality, the non-student-centered teaching becomes a non-teacher-centered teaching, with no sense of constituting a set of practices unrelated to the curriculum, which does not benefit the organized learning of students, freeing the professor from the press of the curriculum and endorsement, and we promote just the laxity of some.

Going back to the original definition, it makes less sense to defend non-student-centered teaching than non-teacher-centered teaching, which, once in our original

terms, means only teacher-directed teaching, as a function of a curriculum and classrooms with objectives. clear pedagogical (learning outcomes).

The Portuguese experience reveals extraordinary selflessness among teachers and great resilience and dedication to their students. It was precisely the three difficult years, between 2011 and 2014, that the professors, as well as other professionals, were more materially supported. For years of economic containment, with some salary reductions, with unemployment benefits, with some reduced hours. And it was precisely during those years that the Portuguese teachers managed to ensure that their students obtained the best results from always the international evaluations. These better results in the PISA and TIMSS assessments reveal that students achieve higher goals during these years than during other years that are more economically and socially prosperous. We will progress supported by a demanding curriculum and external endorsement. Thanks to the teachers.

If we want a focused education that does not progress two students and does not have the corporate interests of two professors, just as there are legitimate interests, we need several components, but above all two: a clear curriculum, translated into clear learning goals, and an external endorsement with meaning sense aluno hairs.

The good professors are supported by the curriculum and by the evaluation. The structured curriculum helps you concentrate on what we know best and what we should do best: teach, transmit knowledge, develop capabilities, promote attitudes and values in our students. An external endorsement reinforces your authority and does not require any effort from the students.

A resume is not easy to establish. It requires the work of teams of specialists, with non-teaching experience and contact with international realities, with deep knowledge of the subjects and with some familiarity with the theory of curricular

development. Demanding everything from an isolated professor or from a small group of professors is very unrealistic and afastra the professors of their functions.

Next, to translate a curricular material and make it operational, you will need good school manuals. Fazê-los also is not easy. Require teams of authors, technicians, graphics and producers, in order to create manuals exposed to public criticism, experienced in many courses and many schools and, consequently, perfected. I demand it from an isolated professor or from teams of professors of a school that is de novo unrealistic and afastra the professors of their functions.

All this seems to be elemental, but it has been posted in cause, explicitly or implicitly, by theories that undervalue the curriculum and its supporting materials (Marsden, 2001). A more modern version of this undervaluation is the predominance of multidisciplinary and curricular flexibility adapted to local interests.

Now multidisciplinary can only be built on the basis of the discipline that is, as we defended above, essential to the structure of student learning. Otherwise, the lesson becomes a disconnected set of practices and experiences, in reality the anger and promoters of a lesson directed at memory and not at comprehension.

Likewise, curricular flexibility makes sense on the basis of a curriculum and an endorsement, and as a way of deepening subjects and promoting or contacting students with other realities. Nesse sense, the creativity of two teachers will be essential. But it is a creativity framed curricularly and supported by an endorsement of fundamental subjects.

Not so, curricular flexibility appeals to corporate interests and laxism. The teacher does not focus on his or her fundamental activity. The teacher is not assisted by his

demanding efforts with two students. You are aware that your goals are flexible, that no external validation will verify your failures.

The association between the curriculum and evaluation encourages us all to improve; In a happy English expression, it brings out the best in ourselves. To his omission, *incentiva muitos a quecer o progresso*, it brings out the worst in ourselves.

8. Conclusions

The Portuguese experience of the last two decades corroborates some of the fundamental conclusions of various empirical and theoretical studies of educational reality.

The Portuguese experience shows, above all, the importance of giving systematic and continuous attention to the school results of two students (learning outcomes). This means, in particular, two things: a well-structured, ambitious and demanding curriculum, and reliable, frequent and varied assessment.

A well-structured curriculum follows several principles. First, try to concentrate on the fundamental matters. *Ou seja*, to read mathematics, then to history and geography, sciences and arts. Second, the curriculum must establish priorities and sequences, have some flexibility, but be able to follow a central path around which learning unfolds. Third, the curriculum must be based on knowledge, the only way to structure and help young people to progress beyond simple memorization, in the direction of a deep understanding of two concepts and an assimilation of the structure of thought of various disciplines. Finally, the curriculum must be clear and synthesized in curricular goals, in a way that allows structuring the various components of teaching on its own: manuals and other support materials, public

and private tutoring systems, clarity for those in charge of education and a marked endorsement for curricular goals.

A reliable evaluation also follows several principles. It is a complex system. Includes training assessment, aimed at reinforcing learning, and promoting teachers, students, peers, and family members. It also includes internal evaluation, carried out by teachers or schools, and with some consequences for the immediate academic future of students. These may be advised to review certain subjects, to attend special classes or, ultimately, to repeat a school year. Retention should be avoided as much as possible, but by promoting the domain of the subjects and not in an artificial or simply administrative way. Internal endorsement must be complemented by external endorsement, also with any impact on the immediate academic future of students.

More than that, external assessment, standardized and embodied in exams, has been shown to be decisive for the progress of two educational systems, in the same way that internal assessment has been shown to be essential for the progress of two students in a school or a school. . Both afferições must be aligned. In the absence of a standardized external endorsement it is practically impossible to determine nationally or regionally the desired level of demand.

These principles can and should be supported with special attention to young people with the most difficulties, as an incentive for teachers and schools to improve their results, as a reinforcement of the autonomy of schools and with the creation of practical ways of professional teaching.

The curriculum is endorsed according to the essential pillars of any educational system. Strangely, they are frequently cut off and subalternized by corporate debates or fascination with technological innovation. But there is no point in

avoiding reality and focusing debates on these accessories. When you two pillars center Falham, the entire fica system is prejudiced. The curriculum is endorsed on the basis of great support for teachers in their efforts to educate our young people.

References

Ausubel, D. (1963). *The Psychology of Meaningful Verbal Learning*, Nova Iorque: Grune & Stratton.

Bergbauer, Annika B., Hanushek, Eric A., & Woessmann, Ludger (2021). Testing, *Journal of Human Resources*. <https://www.doi.org/10.3368/jhr.0520-10886R1>

Candeias, A. and Simões, E. (1999). Literacy and school in Portugal in the XX century: National Censuses and case studies, *Análise Psicológica* 1(XVII), 163-194.

EESC (2017). *How schools can improve literacy and numeracy performance and why it (still) matters*, New South Wales Department of Education. Center for Education Statistics and Evaluation. Available at <https://bit.ly/3D4PUaS>.

Crato, N. (2006a). *O 'Eduquês' em Discurso Directo: Uma Crítica da Pedagogia Romântica e Construtivista*, Lisbon: Gradiva.

Crato, N. (Coord.) (2006b). *Disaster in Teaching Mathematics: How to Recover Lost Time*. Lisbon: Sociedade Portuguesa de Matemática e Gradiva.

Crato, N. (Coord.) (2011). *Teaching Mathematics: Questões e Soluções*. Lisbon: Fundação Calouste Gulbenkian.

Crato, N. (2019). Everything starts with the curriculum, *ResearchED Magazine* 3, <https://bit.ly/3TaDQdI>.

Crato, N. (2020). Curriculum and Educational Reforms in Portugal: An Analysis on Why and How Students' Knowledge and Skills Improved. In: Reimers, F. (eds) Audacious Educational Purposes. Springer, Cham. https://doi.org/10.1007/978-3-030-41882-3_8 (Tradução para castelhano: Crato, N. (2021). Educational and curricular reforms in Portugal: analysis of how and why they have improved knowledge and the aptitudes of the students. In: Reimers, F. (eds) Bold educational proposals, UCJC Stamp, Universidad Camilo José Cela, Madrid).

Crato, N. (2021). Setting up the Scene: Lessons Learned from PISA 2018 Statistics and Other International Student Assessments. In: Crato, N. (eds) Improving a Country's Education. Springer, Cham. https://doi.org/10.1007/978-3-030-59031-4_1

Crato, N. (2022). Math curriculum matters: Statistical evidence and the Portuguese experience. Eur. Math. Soc. Mag. 124, pp. 49-56. <https://doi.org/10.4171/MAG/83>

Da Silva, A. (1939). Or Montessori Method, Lisbon: Inquérito.

FFMS (2022). Pordata. Statistics about Portugal and Europe. Lisbon: Francisco Manuel dos Santos Foundation. Available at <https://bit.ly/3T3m4Jh>

Hanushek, E.A., Piopiunik, M. & Wiederhold, S. (2019). Do smarter teachers make smarter students?: International evidence on teacher cognitive skills and student performance, Education Next, 19(2), 57-64. Available at <https://bit.ly/3CHfvp5>

Lusa (November 2, 2017). The Minister of Education promises to “radically fight” the teachers, Diário de Notícias. Available at <https://bit.ly/3EGNj87>

Marsden, W. E. (2001). The School Textbook: Geography, History and Social Studies, Routledge.

McDaniel, M.A. & Callender, A.A. (2008). Cognition, memory, and education, em Roediger, HL, Cognitive Psychology of Memory, vol. 2 of Learning and Memory: A Comprehensive Reference, (pp. 819-844) Oxford, Elsevier.

ME (1997). Decree-Lei 229/97 of August 30. General Directorate of Education (DGE). Ministry of Education. Available at <https://bit.ly/3gahhY6>

MEC (2006). Action Plan for Mathematics. General Directorate of Education (DGE). Available at <https://bit.ly/3eDN6Ig>

MEC (2012). Decree-Lei 176/2012 of August 2. Ministry of Education and Science. Diário da República n.º 149/2012, Series I of 2012-08-02, pages 4068-4071. Available at <https://bit.ly/3VpxmcD> .

Morris, A. (2011). Student standardized testing: Current practices in OECD countries and a literature review, OECD Working Paper Series No. 65

NCES (2022). National Center for Education Statistics. <https://nces.ed.gov/surveys/international/ide/>

OECD (2016). PISA 2015 Results (Volume I): Excellence and Equity in Education, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264266490-en> .

OECD/UNESCO (2003). Literacy skills for the world of tomorrow: Further results from PISA 2000. Institute for Statistics. Paris: PISA/OECD Publishing. <https://doi.org/10.1787/9789264102873-en>

Roediger, H.L., Karpicke, J.D. (2006). Test-enhanced learning: Taking memory tests im-proves long-term retention, Psychological Science, 17, 249-255.

Roediger, H.L., Smith, M.A. & Putnam, A.L. (2011). Ten benefits of testing and their applications to educational practice. In Ross BH (ed.), Psychology of Learning and Motivation, San Diego, Elsevier Academic Press.

Rosário, PSL and Almeida, LS, (2005). Constructivist readings of learning, in Guilhermina Lobato Miranda and Sara Baía (orgs.). Educational Psychology: Development, Learning and Teaching Topics. (pp. 141–165). Lisbon: Relógio D'Água.

Rugg, H. O. (1928). The Child-Centered School. Nova Iorque, World Book Company

William, Dylan (2018). Creating the Schools Our Children Need. West Palm Beach, FL: Learning Sciences.