Curriculum Flexibility and Autonomy in Portugal - an OECD Review

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Foreword

In July 2017, Portugal officially adopted Legislative Order no. 5908/2017, which allows Portuguese schools to join a project called the "Project for Autonomy and Curriculum Flexibility (PACF)" on a voluntary basis. PACF provides schools with the necessary conditions to manage the curriculum while also integrating practices that promote better learning. The PACF is being implemented as a pilot project during the 2017-2018 school year. Beginning in September 2017, over 200 schools joined the pilot. Per Portugal's request, the OECD has conducted a review of the project. The purpose of the review is to explore how the project supports schools in effectively exercising autonomy and greater flexibility as they redesign their curricula according to the goals delineated in the *Students' Profile by the End of Compulsory Schooling*. The *Students' Profile by the End of Compulsory Schooling* is a guiding document that describes the principles, vision, values and competences the country wishes Portuguese students to have by the time they finish compulsory schooling. In this review, the OECD examines how Portugal can support schools and teachers in adapting existing subjects, curricula and learning to incorporate the goals set out in the student profile. To this end, it delivers an independent analysis of the overall strategy, curriculum design and implementation of the PACF, as well as the first results of the pilot project. The review documents the process under the pilot programme and the status of its implementation in schools. The analysis uses the curriculum design principles identified by the OECD Education 2030 project as a reference. The report provides policy insights and advice to Portuguese authorities at all levels of government, as well as practitioners and other stakeholders. The aim is to help them to ensure high-quality curriculum design and implementation. The report is also intended to help other OECD member countries and non-member economies understand the Portuguese process of redesigning learning models.

The review draws on research and analysis, as well as information gathered during one case study visit. This visit included trips to nine schools that are taking part in the pilot project, and one school that is not in the pilot project. The members of the pilot review mission included: Miho Taguma and Lars Barteit (OECD Secretariat), Connie Chung (independent researcher, United States), Valerie Hannon (Board Director and Co-Founder, Innovation Unit) and Sietske Waslander (Professor of Sociology, Tilburg University, Netherlands), and Luis E. Gracía de Brigard (Founder and Managing Partner, Appian Education Ventures). The preliminary findings were presented by Andreas Schleicher on 9 February 2018 at the National Conference on Autonomy and Curriculum Flexibility in Lisbon. The final report was prepared and reviewed by Andreas Schleicher, Miho Taguma and Lars Barteit with editorial support by Marissa Colón-Margolies and additional support by Tanya Ghosh (OECD intern). The main authors of this report are Connie Chung, Valerie Hannon, Sietske Waslander, Miho Taguma and Lars Barteit; the OECD provided information, analysis and discussion drawing on the OECD data such as PISA, TALIS, and Education at a Glance. Administrative support was provided by Kevin Gillespie (OECD Secretariat). Rachel Linden (OECD Secretariat) helped with finalising the publication.

Portugal's involvement in the OECD review was co-ordinated by Mr. José Vítor Pedroso (Director-General, General Directorate for Education), Ms. Eulália Alexandre (Deputy-

Director General, General Directorate for Education), Ms. Joana Matias (General Directorate for Education) and Ms. Carla Mota (General Directorate for Education). Portugal provided key information and support to the OECD review team. Portugal's contributions include: the provision of background documents, school visits and meetings with other relevant stakeholders. They were arranged based on the requests made by the review team. These meetings and visits provided a broad perspective on the practices and first results of the Project for Autonomy and Curriculum Flexibility. The review team is extremely grateful for the insightful discussions, helpful comments, explanations and time dedicated to the review by the various people the team had the pleasure to meet. A special thank you goes to Ms. Eulália Alexandre and Ms. Carla Mota, who shared their expertise and answered the questions of the review team before, during and after the visit. The team is also extremely grateful to the Portuguese stakeholders for their hospitality. The visits were inspiring and, due to the wealth of information received, gave the team much to reflect on.

The OECD review mission took place on 15-19 January 2018. It included visits to Lisbon, Moita, Azeitão, Alcanena, Almada, Vialonga, Seixal, Sintra and Odivelas. The itineraries for the visits are provided in the Annex of this report. The visits were planned jointly by the OECD Secretariat and the Portuguese authorities. They focused on the pilot study launched by the Portuguese Ministry of Education with the participation of about 230 schools. At these schools, the visits were arranged by the following focus themes: designing curriculum flexibility (the effect of school autonomy on curriculum design, e.g. interdisciplinary subjects); promoting pedagogies for effective curriculum implementation (the effect of school autonomy on effective pedagogies, e.g. project-based learning); and equity. During the review visit, the team conducted discussions with a wide range of stakeholders, including academic experts, school leaders, teachers, parents, students, non-governmental organisations (NGOs), critics of the project, national, regional and local authorities, and officials from the Portuguese Ministry of Education.

This report is organised in three chapters. Chapter 1 provides the national context with information on Portugal's overall strategy. Chapter 2 looks at aspects of curriculum design. Lastly, Chapter 3 focuses on curriculum implementation. All three chapters identify strengths and challenges, while also offering policy insights.

1. Overall strategy

Key messages

- Portugal has taken a sound strategic approach to education reform. The country began the process by envisioning the outcomes the education system should seek for its learners, based on evidence about 21st century conditions. It expressed these outcomes in a coherent strategic plan, described in detail in the reference document, *Students' Profile by the End of Compulsory Schooling*.
- Portugal has achieved widespread agreement on its reform plans through careful consultation, debate and communications that have been well handled and successful. By seeking expert advice, shareholder input, and open communication and debate, the country has invested in the continuance of the reform plan by future governments.
- The country appears to be open to feedback and to learning from the lessons derived from the evidence that has emerged about the successes and weaknesses of the Project for Autonomy and Curriculum Flexibility.
- The project faces a range of challenges, but none of them are insuperable. That said, the challenges may have implications for other aspects of Portuguese education policy. In particular, the project may challenge the continuing centralisation of the education system and the prevailing method of didactic pedagogy.

Introduction

The Project for Autonomy and Curriculum Flexibility (PACF) aims to define the guiding principles and rules for the design, implementation and evaluation of the curriculum for primary and secondary education in Portugal. It is guided by the principles and goals delineated in the strategic plan document, Students' Profile by the End of Compulsory Schooling. The project is being implemented on a pedagogical experience basis. This has allowed authorities to monitor and evaluate it, which is critical to its redevelopment.

In order to render the Project for Autonomy and Curriculum Flexibility fit for the 21st century and make it more capable of meeting the needs of all young people, stakeholders should consider it within the broader context of other government initiatives. No single initiative, pilot or programme can achieve full reform of the Portuguese education system. The Project for Autonomy and Curriculum Flexibility sits within a suite of other programmes and initiatives. They include:

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- the National Skills Strategy
- the National Programme for Promoting School Success
- New Pedagogical Orientation for Pre-School (with associated investment)
- Reinvestment in in-service training
- the New Law for Inclusion
- changes in assessments (focusing on formative assessment and a diversity of instruments)
- INCoDe.2030 (a strategy for promoting digital competency)
- the National Reading Plan
- the National Education Strategy for Citizenship.

OECD National Skills Strategy for Portugal

Portugal formulated its National Skills Strategy in 2015, which entailed a strategic assessment of Portugal's national skills system. The National Skills Strategy used a framework to analyse the country's strengths and weaknesses. It then used these findings as a basis for taking concrete actions according to three pillars: 1) developing relevant skills from childhood to adulthood; 2) activating the supply of skills ion the labour market; and 3) using skills effectively in the economy and society. An effective skills strategy ensures policy coherence across these three pillars while strengthening the conditions for effective governance and financing – which underpin the skills system as a whole. The diagnostic phase identified main challenges in developing, activating and using skills in Portugal. The results were published in 2015 (OECD, 2015[1])

Figure 1.1 Skill challenges for Portugal
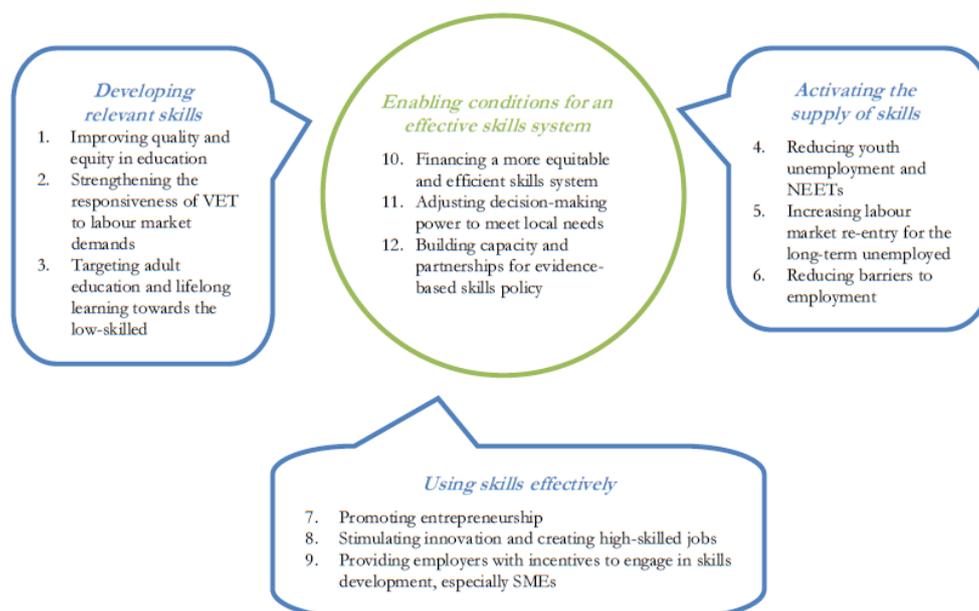
Note: Abbreviations- *VET*: Vocational Educational Training; *NEET:* Not in Education, Employment, or Training; *SME:* Small to medium enterprises
Source: OECD (2015) *Skills Strategy Diagnostic Report, Portugal*
http://www.oecd.org/skills/nationalskillsstrategies/Diagnostic-report-Portugal.pdf.

Students' Profile by the End of Compulsory Schooling

In 2017, Portugal codified what young people are expected to achieve at the end of compulsory schooling in the document, *Students' Profile by the End of Compulsory Schooling*. The document describes the profile students should have, necessary actions for teachers and the commitment that should be made by schools and cultivated among families and parents. The document sets out an educational vision, as well as principles, values and competence areas that will enable students of this global generation to thrive and contribute to a culture and country that is humanistic, scientific and artistic. International reference documents on teaching and learning from the European Union (EU), the Organisation for Economic Co-operation and Development (OECD) and the United Nations Educational, Scientific and Cultural Organisation (UNESCO) were consulted during the development of the student profile.

In addition, the *Student Profile by the End of Compulsory Schooling* presents itself as a reference document for the organisation of the entire education system. In particular, it discusses various dimensions of curriculum development. The purpose of the document is to contribute to the organisation and management of curricula. It also aims to define strategies, methodologies and pedagogical-didactic procedures to be used in teaching practice.

The breadth of the goals outlined in the student profile makes it inclusive and respectful of the diversity of Portuguese schools. The profile is guided by explicit principles, values and a vision – all of which were crafted according to social consensus. These aspects apply to all types of schools. Transversality is key to the student profile and is based on the assumption that each curriculum area contributes to the development of all competence areas. Because of this, competence areas are not strictly separated into specific components and curriculum domains. The scope and transversality described in the document underscore the sustained and strategic nature of the reforms. The aim is that the content and purposes delineated in the student profile be continually invoked in schools (Directorate General of Education/ Ministry of Education Portugal, 2017[2]).

Essential Core curriculum

The Essential Core curriculum was launched in August 2017 to address curriculum overload. The government invited professional societies such as the Maths Teachers Association and Portuguese Association of English Teachers to identify the common base and core curriculum they think all students should learn. The aim was to ensure a mastery of core disciplinary subjects, while at the same time allowing space for interdisciplinary learning built on core subject mastery. The programme contributed to the development of the competences in the student profile. It aimed to ameliorate curriculum overload, while supporting better and deeper learning for all students.

National Programme for Promoting School Success

The National Programme for Promoting School Success was launched in 2016 to improve school retention. It focuses on the classroom, looking at issues such as co-operation among teachers and early interventions at the first sign of difficulty – such as frequently observed truancy. It also tends to focus on the initial years of lower primary education, focusing on years one and two as a preventive measure instead of a remedial work.

The programme offered school leaders training with regards to strategic planning. Schools were invited to design strategies pegged to their local contexts. These strategies

addressed what schools identified as sources of poor school retention. This decentralised project generated 2 915 different actions that were disseminated throughout the country. The programme assisted all municipalities in the preparation of local projects that converged with schools' actions.

National Education Strategy for Citizenship

The National Education Strategy for Citizenship was launched in October 2017 to re-introduce citizenship education into the curriculum. The strategy has created mandatory teaching areas, such as democratic institutions, the environment, sustainability, human rights and health. In addition, it promotes partnerships with NGOs and other institutions.

At the time of the writing of this report, the National Education Strategy for Citizenship has been adopted only in the PACF pilot schools. That said, the government is starting a large-scale training programme in the area of citizenship education for at least one co-ordinator per school regardless whether the school is within and outside of the pilot project.

Reinvestment in in-service training

The government is investing EUR 21 million in in-service teacher training to address the following three principles:

a) Relevance: To ensure relevance, training areas have been selected in accordance with the diagnosis of the National Programme for Promoting School Success to ensure an effective alignment of different initiatives.
b) Quality: To ensure high-quality training, a funding mechanism gives incentives for partnerships with universities and research institutes.
c) Impact: To ensure impact, Portugal is funding workshops with smaller groups, as well as workshops that encourage experimentation based on the results of training in classrooms.

New Law for Inclusion

In 2017, the Portuguese government initiated a debate on a revision of the New Law for Inclusion that would include special needs students. The main focus of the law is a shift from exclusion to integration, for which an accessible curriculum is recognised as the top priority. In this context, the PACF has become one of the crucial instruments to make inclusion happen.

Changes in assessments (formative assessment and diversity of instruments)

The government has replaced exams in the grades four and six with low-stakes assessments. These assessments encompass the whole curriculum (including arts and physical education), and ask students to answer hybrid questions that mobilise knowledge from different subjects. At the same time, the law promotes a diverse use of assessment and evaluation instruments. In doing so, it has caused educational authorities to consider not only testing, but the formative nature of evaluation.

INCoDe.2030

INCoDe.2030 is a national strategy that was launched on 3 April 2017 to promote digital skills, including digital education. The PACF project works alongside INCoDe.2030 by promoting information and communication technologies (ICT) use at all levels.

National Reading Plan and network of school libraries

The government has reinforced the National Reading Plan for the next 10 years, focusing on areas such as the promotion of multiple literacies and early interventions with regards to reading difficulties. Portugal's network of school libraries guarantees the implementation of the plan and is playing a key role in the PACF. This is beneficial, as the two programmes share knowledge with regards to collaborative work and interdisciplinary learning. Teacher training is being developed in this area.

Investment in pre-school and transition to primary school

In addition to providing free pre-school to all 3-year-olds, the government launched a programme called Curricular Orientations for Pre-School Education in 2016. This programme aligns goals for pre-school and 1st cycle (covering age 6 to 10), with a strong focus on the transitions. The programme aims to promote an integrated view of education. This is important, because the core concepts of the PACF should be practiced early on so that both children and teachers consider them integral to life-long learning.

In addition to the strategic alignment being practised among different government initiatives, the project team and senior members of the Ministry of Education undertook an extensive programme of engagement and consultation over 18 months before launching the PACF. The aim was to build support for the project and also to improve its design. The engagement and consultation programme included meetings with head teachers, teacher societies, unions, the National Council for Education, non-governmental organisations, parent representatives and students. Hundreds of seminars, meetings in schools and conferences were organised in schools and by other organisations around the country. These painstaking efforts before the launch of the project have created a broad platform of support for the reforms. They have also given them strong legitimacy. In addition, these efforts helped the project fit with the National Skills Strategy, as they addressed the challenge of "adjusting decision-making power to meet local needs" (OECD, 2015[1]). By addressing this issue, the project has been able to create the enabling conditions for an effective skills system.

Overall strategy

Strengths

Portugal's educational reforms reflect strategic thinking and a clear theory of action underpinning change.

The PACF derives not from a theoretical or ideological basis, but a widely-held view of the challenges facing young Portuguese students in a 21st-century world. Current conditions are ripe for reforms. The Portuguese economy is recovering, and unemployment is declining (OECD, 2017[3]). Competitiveness has improved in terms of the expansion of the country's exports relative to import demand from its trading partners (OECD, 2016[4]). To further the prosperity of the country, the government should continue to improve quality and equity in education so as to develop relevant skills. This issue was highlighted as one of the 12 challenges facing the country by the National Skills Strategy in its diagnostic phase (OECD, 2015[1]).

As student performance has improved in Portugal, equity has remained stable. (OECD, 2016[5]). At the same time, more young people are expected to enter upper secondary

vocational education and training (VET) programmes (OECD, 2016[6]). Despite this, the percentage of Portugal's working-age population that has attained at least upper secondary education is below the OECD average (OECD, 2016[6]). In addition, grade repetition is still commonly used in the country (OECD, 2016[7]). Thus, improving skills is key to future development in Portugal.

Figure 1.2 Change between 2009 and 2015 in grade repetition rates
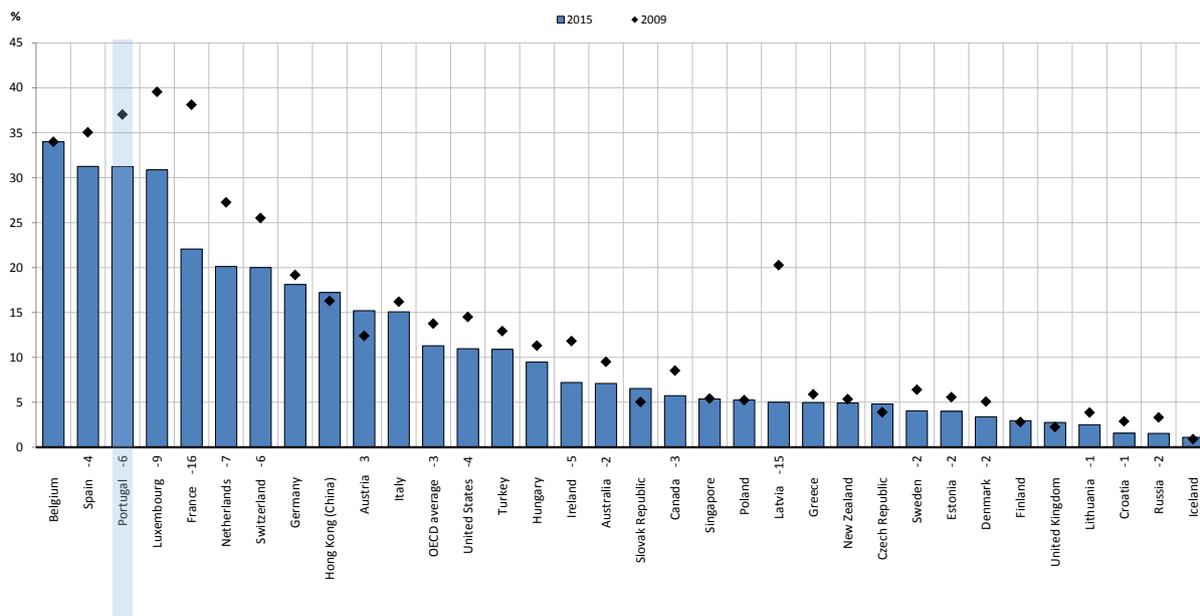
Note: The numbers under the graph indicate the percentage of change between 2009 and 2015 in the country.
Source: OECD (2016), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, http://dx.doi.org/10.1787/888933436111.

Portugal is not alone in facing new challenges. With rapid advances in technology and an increasingly connected world, many believe that the Fourth Industrial Revolution is underway – including in the field of education (World Economic Forum, 2017[8]). It will bring with it unpredictable implications for the nature of work, for equity and for well-being. Among OECD countries, there has been an increase in the time students spend online outside of school on a typical school day (Figure 1.3). Furthermore, Portugal has a large number 15-year-olds (79.4 % of boys and 79.2% of girls) who report "feeling bad" if they are not connected to the Internet (Figure 1.4) (OECD, 2017[9]).

Figure 1.3 Increase in time spent online outside of school
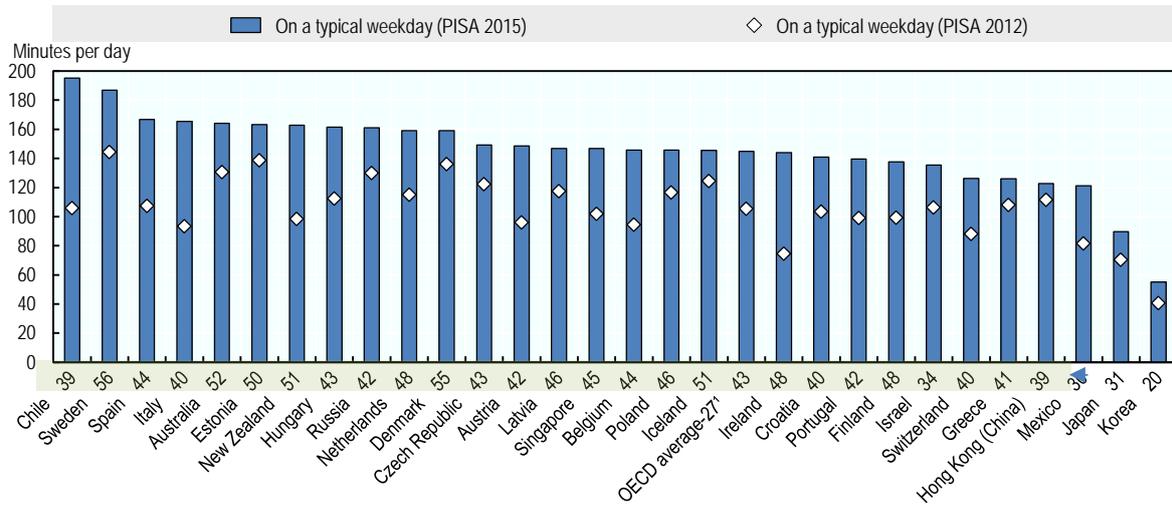
Note: The numbers on the x-axis indicate the percentage of high internet users per country. "OECD average-27" includes OECD countries with available data for both PISA 2012 and PISA 2015.
Source: OECD (2016), PISA 2015 Results (Volume II): Policies and Practices for Successful Schools, http://dx.doi.org/10.1787/888933436111.

Figure 1.4 15-year-olds who report feeling bad if they are not connected to the Internet
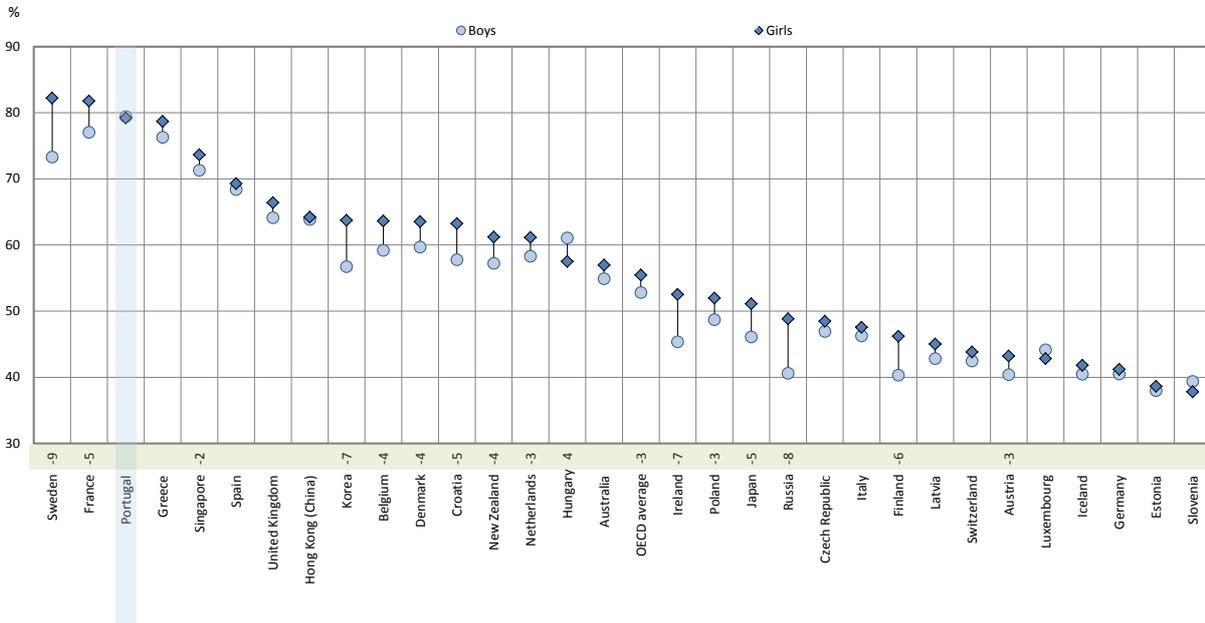
Note: Statistically significant differences between boys and girls are shown next to country/economy name
Source: OECD (2017), PISA 2015 Results (Volume III) Students' Well-Being, http://dx.doi.org/10.1787/888933473450.

Several changes in the modern world challenge today's students. Technological innovation has entered almost every aspect of modern life and will continue apace. Climate change, environmental degradation and migration patterns present major challenges for the next generation to cope with and address. Among OECD countries, the percentage of foreign-born students is increasing. This means that the student population is becoming more ethnically, culturally and linguistically diverse. In Portugal, the percentage of foreign-born students increased from 3.5% in 2006 to 4.1% in 2015 (Figure 1.5) (OECD, 2016[5]).

Figure 1.5 Increase in percentage of foreign-born students
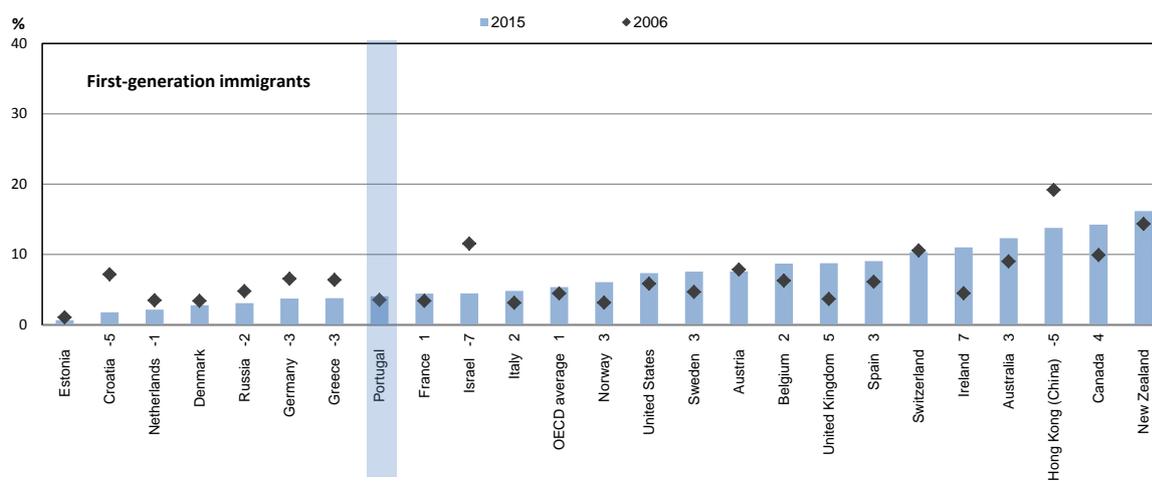
Note: The percentage-point difference between 2006 and 2015 in the share of students with an immigrant background is shown next to the country/economy name. Only statistically significant differences are shown.
Source: OECD (2016), *PISA 2015 Results (Volume I): Excellence and Equity in Education*,
http://dx.doi.org/10.1787/888933432876.

On a personal level, young people around the world are seeking meaning and purpose in confusing circumstances. Beset by "fake news" and the complexities of social media, encountering tensions and dilemmas in the face of increasing cultural diversity and other changes, these students must thrive in an evolving world. Under such circumstances, global awareness and mind-set to take responsible actions are increasingly recognised as part of the competencies today's students will need to thrive and to shape a better future. To reflect this reality, the innovative domain of the Programme for International Student Assessment (PISA) 2018 is measuring global competence (Figure 1.6). The assessment will cover knowledge, skills, attitudes and values in the areas described below.

Figure 1.6 PISA Global Competency 2018

Knowledge

Content domains concerning global issues and intercultural issues include:

- Culture and intercultural relations. As students engage in learning about other cultures they must recognise multiple, complex identities and avoid categorising people through single markers.
- Socio-economic development and interdependence.
- Environmental sustainability.
- Global institutions, conflicts and human rights.

Skills

Global competence builds on specific cognitive and socio-emotional skills, including:

- reasoning with information
- communication in intercultural contexts
- perspective-taking or acquiring the cognitive and social skills to understand how other people think and feel
- conflict resolution
- adaptability.

Attitudes

To achieve global competency, students should be able to take on a certain mind-set towards other people, groups, institutions, issues, behaviours and symbols. This mind-set includes:

- openness towards people from other cultural backgrounds
- respect for cultural differences
- global-mindedness.

Values

Values go beyond attitudes, as they transcend specific objects or situations. People use them consciously and unconsciously as a reference point for judgements. The core values that are important for global competence include:

- human dignity
- cultural diversity.

With technological, economic, environmental and cultural change, young people need to develop a range of competences.

In order to achieve these competences, education systems can benefit from constructing student profiles – which set out the desirable outcomes of years of schooling. This is what Portugal has done. The student profiles are expected to support the alignment of curriculum, pedagogies and assessments.

Figure 1.7 Competences defined in the *Students' Profile by the End of Compulsory Schooling*
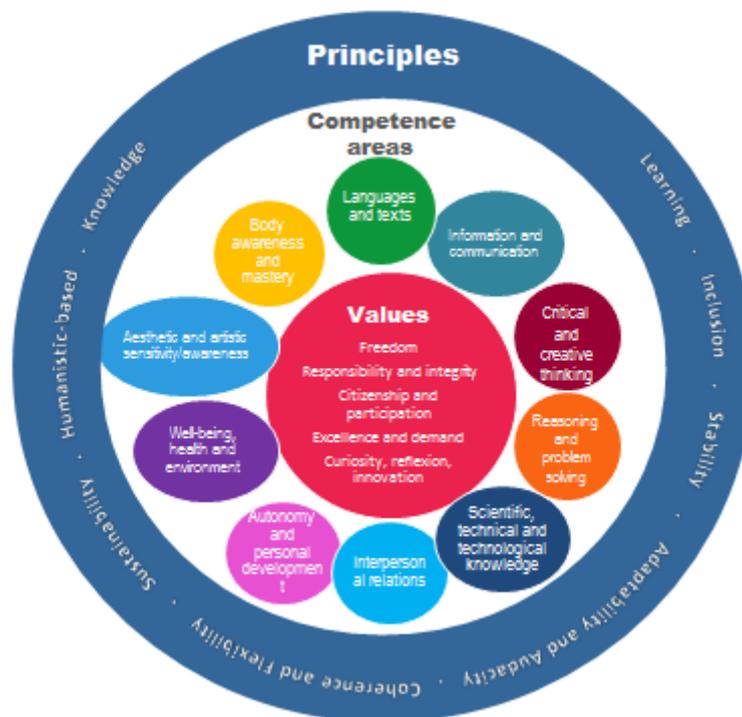
Source: *Students' Profile by the End of Compulsory Schooling*, Directorate-General for Education/Ministry of Education (2017)

While the *Students' Profile by the End of Compulsory Schooling* describes the profile young Portuguese students should have by the end of schooling, questions remain about how to achieve it. Logically and in practical terms, the PACF could have the capacity to achieve these desired outcomes. The reason for this is that PACF accomplishes many practical goals that are linked to the aims set out by the student profile. For example, PACF grants schools voluntary autonomy over a proportion of curricular and pedagogical areas. This means that schools can design learning experiences that are in line with the aims of the student profile. For example, schools can target lessons and practices for non-native Portuguese speakers or students at risk of dropping out. Thus, the project addresses key policy aims like equity and retention. Because it is a broad-based reform that is open to all schools, it also endeavours to support high-quality learning for all – not just elites.

A strength of the Students' Profile by the End of Compulsory Schooling *is that it aims for broad outcomes and aims to give all stakeholders a strong sense of ownership.*

The authors of the student profile carefully considered the nature of the changes facing the world, as well as the knowledge, skills attitudes and values that will be needed to address them. In making these explicit, the student profile and the Project for Autonomy and Flexibility have created a powerful baseline against which to assess the adequacy of current curricular experiences.

A further clear strength has been the consensus-building that has taken place concerning the student profile. Expert consultation, meetings with teachers, administrators and parents have all provided crucial information and created stakeholder buy-in. Critically, this process has also involved students themselves – from the youngest ages.

Portugal has also taken a strategic approach to communications about its reforms. An example of this is an event called Student Profile Day that was held on 15 January 2018. The event was well covered – with live streaming to every school in the country and a TV media partner who ensured that the event would be broadcast for viewing by the broader population. It is a considerable achievement that such an event made the national news. The broad and popular base of the panel involved on the day (a prominent Portuguese TV presenter, the national football team's coach, a well-known judge, a scientist, a journalist and a young pop star) gave the event a freshness and relevance. Most impressive, however, was the engagement and enthusiasm of students in schools across the country. Event organisers interviewed students watching the programme and asked them to contribute their thoughts.

Following the event for the Student Profile Day, the OECD team visited some of the schools that took part in the pilot project (see Programme of OECD mission). The OECD team witnessed that students of all ages were engaged in the activities of developing the student profile in their own contexts. One example of an activity was a visualisation of the student profile by students themselves (Figure 1.8).

Figure 1.8 Visualisation of the "Student Profile" by students themselves

Source: Photograph by Miho Taguma (2018) at Schools' Cluster Ibn Mucana, Raul Lino Elementary School, Monte Estoril.

Portugal's communications strategy has clearly been effective, in that many respondents referred with pride to the student profile and demonstrated a true sense of shared ownership.

A further strength of Portugal's approach lies in how it has rooted the PACF pilot project in the moral objectives of: 1) greater equity and inclusion; and 2) reducing high dropout rates in the country. This basis has inspired many schools engaged in other relevant government initiatives (e.g. the National Programme for Promoting School Success) to volunteer for the PACF pilot project.

Portugal also made a strong case for broadening outcomes beyond knowledge and for embracing the wider concept of competences. Interviews with the OECD review team show that these concepts are widely understood by shareholders (see Programme of OECD mission). In this respect, the project is both leading and expanding on the global movement of OECD Education 2030.

The Ministry of Education's openness to feedback and reflection is a strength.

The openness of the Ministry of Education to reflection and review with respect to the PACF pilot project is notable. The Ministry's team has consistently demonstrated its disposition to learning and its willingness to improve its work through feedback. It has shown its openness by including various stakeholders in the development of the student profile, as well as international experts through this OECD review. It is critical that

Portugal seizes the opportunity to continue reflecting as evidence from the pilot project – both positive and negative – emerges, even if timing make this challenging.

Challenges

Changes to the curriculum and the use of the diverse internal and external assessments that are associated with these changes have raised concerns among some parents, teachers and students.

The Project for Autonomy and Flexibility is perceived to be in conflict with the main objectives of many parents, teachers and students in the education system – namely, obtaining high grades on the country's high-stakes national exams. The challenge of public, parental and political pressure for accountability in the form of scores and rankings was already observed at the time of the 2012 *OECD Policy Review of Evaluation and Assessment in Education for Portuga*l when the government tried to create a balance between formative and summative assessment.

During the OECD school visits, teachers the OECD team interviewed frequently mentioned this conflict. These issues are not new; the 2012 *OECD Policy Review of Evaluation and Assessment in Education for Portuga*l noted similar concerns (Santiago et al., 2012[10]). That report recommended that evaluation frameworks in Portugal focus much more directly on the quality of learning and teaching and their relationships to student outcomes. The 2012 policy review team also observed that, while formative student assessment was strongly encouraged via policy, it was less strongly implemented in classroom practices. Furthermore, the OECD found that the assessment of students was oriented towards summative scores, and it was unclear whether students were placed at the centre of the evaluation and assessment framework. In addition, relatively little emphasis was given to the development of students' own capacities to regulate their learning through self- and peer-assessment. Finally, teachers' feedback to students was not sufficient to develop the kind of teacher-student interactions that foster deep student learning (Santiago et al., 2012[10]).

One of the recommendations set out in 2012 by the evaluation review team included augmenting "the communication of learning expectations to students, [as well as] the opportunities for performance feedback and mechanisms for individualised support" (Santiago et al., 2012[10]). Since 2012, Portugal has addressed some of these recommendations. The collaborative development of the student profile helped educators communicate learning expectations to students. In contrast, implementing "performance feedback and mechanisms for individualised support" (Santiago et al., 2012[10]), remains a challenge. In line with the 2012 review analysis, and in order to strengthen formative assessment practice and ensure the quality of feedback for learners, Portugal could consider addressing the remain challenges, including: 1) developing the competences of teachers for student formative assessment; and 2) focusing further on skills training for student assessment in initial teacher education.

The PACF pilot not only allowed schools to experiment with new pedagogies, it also allowed them to develop new assessment practices. For example, during the 2018 OECD school visits, several teachers shared their experimental efforts to assess different aspects of learning. They did this, in part, because they recognised that, as the maxim goes, "what gets measured gets treasured". In other words, in order to achieve the goals set out in the student profile, teachers realised they would need to find new ways to assess learning.

While diversifying assessment practices and promoting formative assessment will remain the core aims of the PACF, it will be difficult for the diverse assessments to gain traction. The reason for this is that it seems inevitable that, while the high-stakes end-of- schooling exam will remains paramount because it determines the entry to tertiary education for students. Because of this, the PACF could be misinterpreted and perceived by many as a distraction, or as suitable only for younger age ranges or "no-risk" students (those who currently perform less well on exams).

A misperception persists that greater flexibility in the curriculum implies lowering learning standards.

It is possible to misrepresent the aims and outcomes of the Project for Autonomy and Flexibility as lowering standards. Portugal faces the challenge of showing that reducing the burden of content within the curriculum by defining "essential learning" (facts and competences that are essential to the formation of students as thinkers – as formulated and proposed by the Ministry of Education) will not lead to a lowering of standards. Rather, the Project for Autonomy and Flexibility needs to show how the results of the student profile and PACF can be deeper learning (rather than simply breadth), as well as more students learning better (including disadvantaged students).

Portugal's education system is highly centralised. Because of this, inherent conflicts exist between the pilot project's learning model and the existing highly prescribed, centralised system.

As PACF proceeds, the inherent conflicts between the learning model implicit in the pilot project (and indeed the outcomes set out in the student profile) and the existing highly prescribed, centralised system are likely to become more apparent and acute. Thus, Portugal could consider studying the ways it can delegate some responsibilities to local schools and principals. Evidence shows that increased devolution to schools can improve standards. For example, PISA has shown correlations between the responsibilities for school governance and science performance.

The challenge will be to gather evidence from Portugal that demonstrates that moving towards a more delegated system will result in more energy and engagement on the part of stakeholders, as well as better learning outcomes for more students, as suggested by PISA analysis (Figure 1.9).

Figure 1.9 Correlations between the responsibilities for school governance and science performance
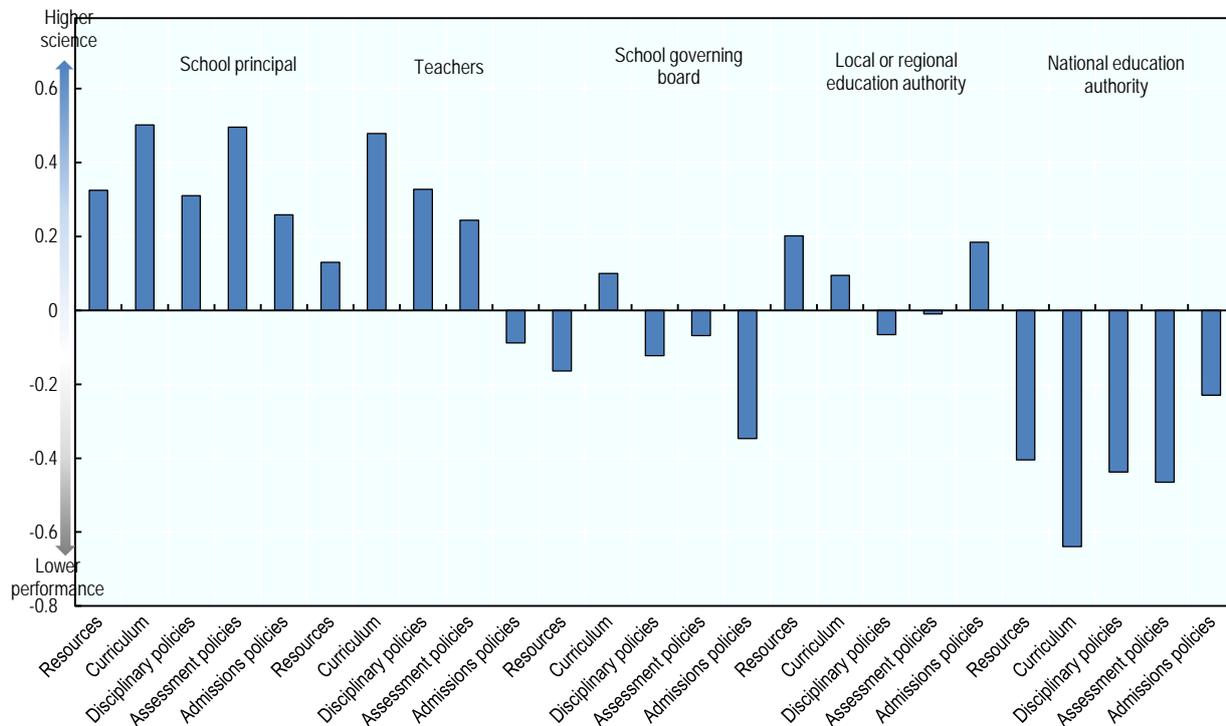
Portugal's reforms could provoke a culture clash, as students experiencing participative, relevant, competency-based approaches to learning in the context of flexible curricula may become dissatisfied with traditional practices in schools.

The Project for Autonomy and Flexibility will need to consider how to handle a possible scenario where students who take part in the PACF may find it difficult to adjust their learning styles when encountering more conventional, content-based practices. The PACF promotes high-quality, participative approaches to learning which are less concerned with content coverage and more focused on deeper learning. Because of this students will have to learn to manage different modes of study. Mitigating strategies will need to be developed to help schools handle these transitions.

Further engagement of non-pilot schools into national initiatives, such as the student profile

For the system to remain coherent, Portugal will need to progressively incorporate and engage schools that do not currently participate in the PACF. In addition, it will have to do so in ways that suit the diverse cultures of different schools and different modes and speeds of development.

Policy insights

Portugal could consider gathering evidence of impact of the PACF pilot.

The OECD recommends that, as soon as possible, the Ministry of Education begin to collect and record:

- evidence of student engagement
- evidence of inspiring and promising practices at all levels
- evidence of teacher satisfaction and fulfilment
- evidence of where teacher professional development needs to be strengthened
- insights from less successful practices from which lessons could be learned.

Portugal could continue to pursue and develop its communications strategy.

The communications strategy for the PACF and student profile should be extended to deploy the evidence collected (especially video material) widely in schools that are newly entering the programme. Portugal could also consider disseminating this evidence to the media. Such efforts have the potential to give schools that are not yet in the programme confidence. They can also teach the public about the value of student-led learning.

Portugal could consider prioritising investment in capacity building to develop teacher and school leader skills.

The success of this initiative may depend on a strong and efficient investment in teacher and leadership skills. This should therefore be prioritised. It is clear that many teachers in the PACF are experimenting with project-based learning methodologies. There is a wealth of expertise and materials that could support teachers in this process and accelerate it, while avoiding pitfalls and frustrations. Portugal could consider offering professional development opportunities on a voluntary basis so as to ensure teacher autonomy and leadership.

Portugal could consider launching a debate about the university admissions process, as well as ways to align it with the student profile.

The constraints faced by secondary schools in particular relate in large part to the role of access to universities. There is an urgent need for debate on access to universities. Impoverishment of learning in secondary schools has resulted from a narrowing of activities due to the heavy weight of the national exams (Santiago et al., 2012[10]). A debate on university admissions should be launched, giving secondary schools and other stakeholders the opportunity to discuss these constraints.

Portugal could consider fulfilling the promise to extend the PACF project to all schools in 2018 and 2019, while making clear the voluntary nature of the project.

All schools should have the option to join the PACF in 2018 and 2019. The voluntary nature of engagement should, however, be maintained, until there is more powerful evidence of impact, as well as learning from difficulties encountered in the first phase of the project. New schools joining the PACF should have information about the outcomes and practices of early adopter schools made available to them. That way, new schools can build on early successes, and learn from failures. In one of the schools the OECD team visited, the school leadership team had established a collaborative, respectful and

collegial staff culture that centred on knowing and caring about their students. This kind of school culture enabled the staff to: 1) adopt new practices that targeted the needs of the students; 2) reflect on the successes and failures of pilot practices; and 3) iterate to improve their teaching and learning. The regular practice of action and reflection that this school leadership team practiced and the various programmes that arose from such a culture could be one of the many examples from which other schools could learn and benefit.

Portugal could consider preparing for expected and unexpected consequences.

It should not be taken for granted that the PACF will immediately result in better test scores. In the early stages of the implementation, there may be an initial dip in formal test scores. This is to be expected, and perhaps prepared for. Test scores are not the overarching objective of the PACF. That said, better scores are a likely outcome over time. Should a dip in scores occur, it should not be taken as evidence of the project's failure. Rather, it should be understood as a familiar initial feature of many innovation programmes that later reap larger, deeper benefits (Borman et al., 2004[12]).

Portugal could consider guaranteeing the continuity of its reforms over the long term to ensure real effects.

The PACF should be positioned as part of a long-term shift in the Portuguese education system. This shift will have many dimensions, but it is ultimately about joining the global movement towards:

- deeper learning for all students
- a competency-based approach to curriculum which values knowledge, skills, attitudes and values equally
- achieving the outcomes for students set out in the country's national student profile

In the longer term, Portugal could consider instituting a far-reaching curricular review.

Having begun the process of reconsidering how curricula should be understood and defined, the Ministry of Education could consider moving towards more comprehensive curricula review. Several countries and regions, including Singapore, Finland and Canada's British Columbia, could serve as excellent models for this process. Along with necessary debate and changes made to assessments, curricular review can help Portugal achieve the profound goals delineated in the student profile. This process of review, feedback and innovation will entail a culture change – but one that will bring about success.

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2. Curriculum design

Key messages

- The pilot project legitimised certain pedagogies that some teachers and schools already practiced episodically and in the context of extracurricular activities. These pedagogies included project-based and interdisciplinary learning, as well as formative assessment. The pilot project also created legal space for all schools to have the opportunity to choose to progressively design and iterate a broader range of curricular content and activities. Portugal could consider identifying "lighthouse schools" (schools that can serve as inspiring models) so that leaders and teachers at other schools can visit and observe successful pilot projects and see the ways schools are attempting to fulfil the student profile and observe policies in action. In using those schools as examples, other schools will be encouraged to be innovative and authorities will be encouraged to resist the temptation to standardise.

- The pilot project encouraged teachers to take part in designing and implementing more diverse curriculum content and activities. Teachers reported having new opportunities to work with colleagues across subject areas in an effort to design new integrative learning units for students. They also reported performing outreach to community members, such as scientists and business professionals, to ask for input in defining learning objectives and designing activities relevant to students' future experiences in higher education and at work. These experiences and the accompanying reflections helped teachers to see how collaboration, integrative teaching and community outreach enabled more inclusive practices and more inclusive classroom environments. Teachers reported increased student engagement and achievement. They also stated that they believed these practices would have an impact on student equity. Portugal could consider continuing to ensure that the pilot project spreads within schools so that successful practices identified by teachers who initially implemented the project can also be shared with other teachers within the same school. This will help ensure equity and equal access to all students.

- The pilot project provided opportunities for teachers to design and experience meaningful in-school professional development. As teachers developed interdisciplinary, cross-classroom and cross-grade activities, they collaborated out of necessity and spontaneously. These interactions enabled teachers to share ideas with each other and observe a range of curricular practices. Portugal could consider continuing to gather feedback from teachers on the pilot experience. It should do so by conducting research on different models of curriculum design and sharing them with all schools to ensure equity across schools.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

- Portugal could consider clarifying the competences students need to attain with regards to information and communication technologies (ICT). ICT has the potential to be integrated into many different subjects under the pilot project; additional clarity about the kinds of competences to be attained would be helpful to encourage and support more flexible curriculum design during integration.

Introduction

The Portuguese Ministry of Education (MOE) instituted Legislative Order No. 5908/2017 with the understanding that "promoting a quality education implies ensuring that school achievement means effective and meaningful learning, with consolidated knowledge to be mobilised in concrete situations that foster the development of high-level competences, which, in turn, contribute to a successful citizenship within the context of the challenges posed by contemporary society" (Cabinet of the Secretary of State for Education, 2017[13]).

To this end, the MOE outlined a set of competences in a reference document called the *Students' Profile by the End of Compulsory Schooling* to guide curriculum design. These competences define successful citizens as not only informed, but "also able to integrate knowledge, solve problems, master different scientific and technical languages, co-operate … [be] autonomous, [have] aesthetic and artistic sensitivity and [take] care of [their] well-being" (Cabinet of the Secretary of State for Education, 2017[13]). The MOE underscored the goal of equity by stating that "the curriculum aims at ensuring that all students, regardless of their school pathway, achieve the competences defined in the *Students' Profile by the End of Compulsory Schooling*" (Cabinet of the Secretary of State for Education, 2017[13]).

In addition, recognising that schools and students along with their needs and contexts are diverse, the ministry introduced a three-pronged framework of autonomy, trust and responsibility. The framework asserts that "autonomy based on trust in each school, while being self-aware of its reality and of the responsibility of providing a public service on behalf of a quality education" (Cabinet of the Secretary of State for Education, 2017[13]) should guide the design of Legislative Order No. 5909/2017.

In determining "the design of a twenty-first century curriculum" the MOE not only consulted national and international experts, but also participated in the OECD's Future of Education and Skills: Education 2030 project, and the Students' Voice initiative (Cabinet of the Secretary of State for Education, 2017[13]). As a result, the MOE decided that policy regarding curriculum design "must necessarily create the conditions that enable Portuguese schools to provide a quality response to these new challenges" (Cabinet of the Secretary of State for Education, 2017[13]). The MOE noted further that the new policy does not stem merely from "the desire to innovate[;] it is rather motivated by the appreciation of schools and teachers as agents of curriculum development, ensuring by means of flexibility and autonomy that a deeper learning is achieved by all students" (Cabinet of the Secretary of State for Education, 2017[13]).

Thus, the MOE launched the pilot Project for Autonomy and Curriculum Flexibility (PACF), which integrated choice into its design. The MOE invited public and private educational institutions to volunteer and implement the project during the 2017-2018 school year. The project has affected students in grades one, five, seven and ten, as well as students in year one of vocational courses.

The pilot project has encouraged schools to enrich existing curricula with the knowledge, skills and attitudes that contribute to the achievement of the competences provided for in the *Students' Profile by the End of Compulsory Schooling*. Each school has had the opportunity to use 0-25% of their total curriculum time to introduce effective curriculum design. This has included innovative projects, pedagogy and curriculum design with the following guiding principles:

- improvement of learning and teaching quality to achieve the competences and skills outlined in the student profile, including interdisciplinary teaching and development of projects that combine the cross-curriculum competences for different subjects
- implementation of curriculum autonomy and flexibility in curriculum management (in particular, creating opportunities and meeting the challenges of different schools)
- building inclusive schools that meet all students' diverse personal needs (particularly those in secondary vocational education), while eliminating barriers to access, particularly among traditionally marginalised groups
- implementing citizenship education, and including a focus on Portuguese civics and foreign languages and cultures
- valuing both internal and external assessments of learning, including assessments that invite reflection, self-assessment, autonomy, flexibility, equity, responsibility and personalisation of learning
- fostering alignment of primary, lower and upper secondary education
- mobilisation of education stakeholders, including parents, members of the community and teachers as key agents of learning.

The new policy further outlines the following changes to curriculum design (Cabinet of the Secretary of State for Education, 2017[13]) and describes their aims:

- Giving students, teachers and school leaders more autonomy, choice and responsibility encourages changes in both mind-sets and behaviours, and enables diversity, innovation and personalisation that eliminates barriers to access.
- Allowing greater curriculum flexibility and choice enables students to align learning pathways with their interests and allows schools to serve students' heterogeneity.
- Allowing schools to allocate 0-25% of weekly instructional time to curriculum autonomy will lead schools to choose how to best structure time in light of their contexts and strategic plans to meet student needs and aspirations.
- Allowing more schools and teachers to adopt interdisciplinary approaches and create new learning opportunities will increase the quality of learning experiences for students and make learning more accessible and relevant to more students, thereby creating more inclusive schools.
- Offering all students the curriculum components Citizenship and Development and ICT education throughout their years of formal schooling will help them achieve the goals outlined in the student profile.
- Expanding curricular autonomy and flexibility to include more opportunities for student-centred projects and project-based learning will underscore "the importance of the transdisciplinary nature of learning, mobilisation of different literacies and multiple theoretical and practical competences, promoting scientific knowledge, intellectual curiosity, critical and interventional spirit, creativity and collaborative work".

The co-creation of a student profile of core competences and skills (as delineated in the Students' Profile by the End of Compulsory Schooling) and pilot project for curriculum autonomy and flexibility (Project for Autonomy and Curriculum Flexibility) involved integrating not only findings from research literature about teaching and learning, but also input from key stakeholders. These stakeholders included experts in education, school leaders, teachers, ministry officials, parents, students and community members. This multi-stage process of designing the student profile while gathering public input and feedback created stakeholder buy-in. It also began the process of building public understanding of the pilot project and of the broader purposes of education.

The following section describes the strengths and challenges of the newly created student profile and pilot project as outlined by the Legislative order no. 5908/2017, as well as policy insights.

Curriculum design

Strengths

The process of creating the Students' Profile by the End of Compulsory Schooling *and pilot Project for Autonomy and Curriculum Flexibility involved discussions with school principals, teacher groups, unions, Portugal's National Council for Education, researchers, non-governmental organisations, parent representatives and students. Involving such a diverse group in the creation process enabled these stakeholders to understand the broader educational vision outlined by the pilot project and student profile.*

The creation of the student profile and pilot project involved key stakeholders. This multi-stage process of designing the student profile while gathering input and feedback created stakeholder buy-in. It also began the process of building public understanding of the pilot project and the broader purposes of education.

In the schools visited by the OECD, most stakeholders understood that the pilot project offered an opportunity to design, test and spread effective teaching and learning practices.

For stakeholders at these schools, "autonomy and curricular flexibility" as outlined by the pilot project was an opportunity to make needed curricular and pedagogical changes. In this context, teachers and school leaders were also motivated to try projects that they thought would encourage faculty and students to become more engaged, motivated and effective learners and teachers. Stakeholders at these schools saw the project as helping with curriculum overload, as teachers sought to teach knowledge and skills by integrating relevant subject areas. Early positive reports of these interdisciplinary learning opportunities in Portugal appear to support what research findings call a "productivity puzzle", i.e. more is not necessarily better. There is no correlation between the total learning time (including in- and out-of-school time) and student performance (See Figure 2.1).

Figure 2.1 Learning time and science performance
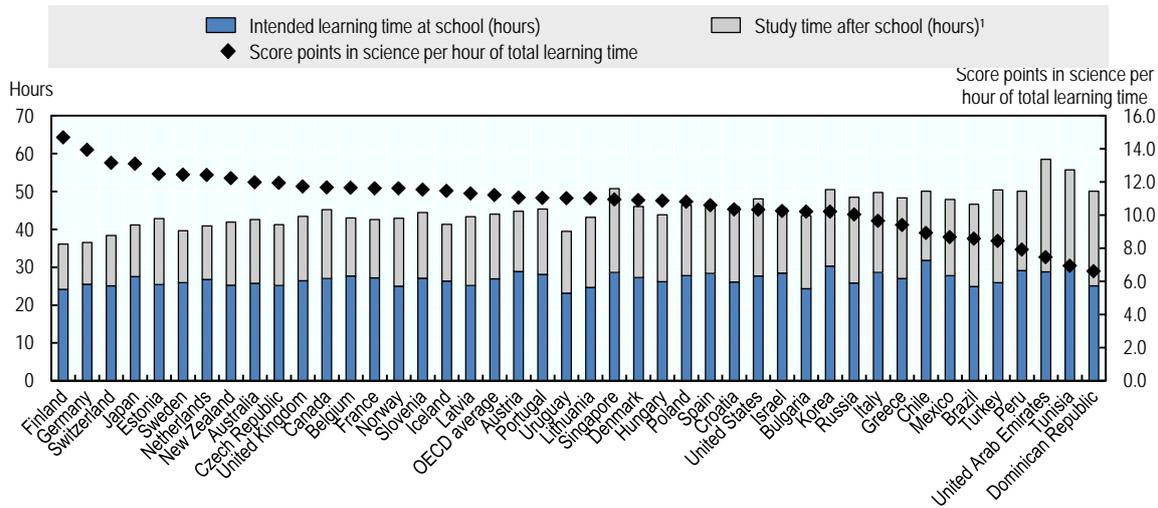
Making learning time productive is critically important, as it allows students to spend time in school building their academic, social and emotional skills in a balanced way.

The stakeholders in the pilot schools saw the pilot as a means to help students learn more deeply and with better clarity and focus. For example, during the OECD visit, teachers reported that curricular flexibility allowed them to combine subjects such as communication, maths and biology to develop a single project. Such interdisciplinary learning opportunities enable students to approach a topic from multiple angles. In addition, students reported experiencing greater opportunities to pursue topics of personal interest to them, which they saw as a chance to exercise the kind of self-directed learning encouraged and practiced in universities.

In designing curricula, the schools the OECD team visited intertwined data gathering and formative assessments with curricular competences, student needs, choice and interests in order to individualise and personalise learning. In these schools, the members of the OECD team were told that teachers' knowledge about students played a critical role in how school leaders chose to redesign and reorganise curricula under the pilot project. For example, school leaders and teachers reported that they incorporated school and grade-level data from each school's pedagogical council to inform their actions during the pilot project. In so doing, they worked to address student needs in areas identified by data analysis. School leaders' knowledge of teachers' preferences, pedagogical styles and faculty also appeared to influence which subjects were combined. For example, in each of the schools the OECD team visited, the teachers who were spearheading the efforts to implement the pilot project came from different subject areas and grade levels. What the teachers and school leaders we interviewed had in common – in spite of their different subject and grade-level backgrounds – was an enthusiasm for the project and a desire to see the project succeed.

The pilot project – which is not compulsory – gives legal space to schools so that they can explore various possibilities for progressive curriculum design. These include new pedagogies and assessments (e.g. project-based learning and formative assessment) and can be implemented in a spontaneous manner.

Portugal's pilot project legitimised certain pedagogies that some teachers and schools were already practicing on occasion or in the context of extracurricular activities. These include project-based and interdisciplinary learning, as well as formative assessment.

The pilot project also created legal space for all schools to have the opportunity to choose to progressively design and iterate a broader range of curricular content and activities. Before the institution of the new policy, some of these practices were only made possible through special authorisation, or under other pilot projects. The new policy of flexibility and autonomy permitted the internalisation of these practices in the routines of schools.

For example, schools visited by the OECD reported that they were finding ways to combine subjects such as biology, chemistry and philosophy to produce science projects for science fairs. Others took the opportunity to take students to nearby nature parks to study the environment; these field trips allowed teachers to combine science and maths lessons with communication skills practice. Some schools used the opportunity to give students the chance to find mentors. Some mentors in the science community helped students with specific projects. Mentors in other fields coached students and helped them to acquire life skills that would not traditionally be learned within an academic subject area. In such cases, students told the OECD team that these learning experiences offered them engaging and invaluable opportunities. Furthermore, these experiences caused students to think about how they learned, provoking a new awareness of learning styles. Students spoke to the OECD team about how they saw their peers learn in different ways, and how they understood that their friends might *need* to learn in different ways than they did.

The pilot project enabled teachers to design and experience meaningful in-school professional development.

As teachers developed interdisciplinary, cross-classroom and cross-grade activities, they collaborated spontaneously and out of necessity. These interactions enabled teachers to share ideas and observe their peers via a range of curricular practices.

Teachers in the pilot schools visited by the OECD reported that combining topics and subjects in meaningful and purposeful ways gave them an opportunity to collaborate and co-design curriculum with other teachers and community members – including professionals in fields like hospitality and science. For example, in one of the schools that the OECD team visited, art, history and physical education teachers worked together to create a "human chess game". The game introduced students to concepts related to medieval history and costume making, but also used movement and critical thinking to show how conflicts can be resolved peacefully. Teachers reported that the pilot project gave them the chance to learn and improve their teaching practice by giving them an opportunity to reflect and thoughtfully design curricula. Some teachers stated that working with others gave them an opportunity to explore the thinking and reasoning behind curricular design choices in a collaborative manner. In doing so, teachers were able to receive helpful feedback from colleagues, which assisted them in making more thoughtful curricular design choices.

Research supports this anecdotal evidence of the benefits both students and teachers glean from teacher collaboration and in-school professional development. In Japan, for example, focused, collaborative work among teachers often leads to good results for students. The Japanese practice includes several key steps. Teachers define a teaching practice problem in their classrooms, collaborate on lesson planning and practice peer observation, collaborative reflection and revision. They also engage in team teaching, collaborative evaluation and reflection. Finally, they share their results (Stigler and Hiebert, 1999[14]).

The pilot project enabled teachers to implement curricular and pedagogical changes that allowed them to engage students with diverse needs and backgrounds. Because of this, the project has the potential to increase inclusion and equity in Portuguese schools.

The pilot project encouraged teachers to design and implement more diverse curriculum content and activities. These experiences and the accompanying reflections helped teachers to see how such practices enabled more inclusive teaching methods and more inclusive classroom environments.

Following the implementation of diverse curricular content, teachers interviewed by the OECD reported increased student engagement and achievement. In addition, these teachers stated that they felt such practices had an impact on student equity. Stakeholders in the schools the OECD visited saw the pilot project as an opportunity to encourage different modes of student learning. For example, teachers reported that they were designing projects that enabled students to make products rather than only recall facts. Teachers said they incorporated opportunities for students to raise questions and find answers collaboratively with other students, rather than merely responding to questions raised by teachers on exams. Students also reported that they were excited and engaged by the non-traditional learning opportunities they received through the pilot programme. These included the chance to interview and learn from community members, and the opportunity to leave school and conduct studies in nature or in the communities surrounding schools.

Stakeholders reported the positive impact of being able to engage a broader array of students from diverse backgrounds, including students with special needs. Many stakeholders expressed their understanding that curricula and pedagogical practices must diversify for equity. Thus, the pilot project has the potential to increase equity and inclusion. It can also potentially decrease grade repetition and lower dropout rates. For example, one of the schools the OECD team visited reported that without curricular flexibility, a student who repeats a grade might have to sit through the same exact curriculum two years in a row. However, with curricular flexibility, this student could be given the opportunity to learn new topics in new ways, with greater personalisation and success. In addition, curricular flexibility allows teachers to create lesson plans that are more inclusive of different learning styles. For example, visual, auditory, tactile and kinaesthetic lessons can be incorporated alongside traditional learning activities like lectures. Under the pilot programme, teachers reported that the autonomy to implement diverse ways of learning engaged more students. In turn, students reported finding learning more engaging.

Research findings from outside Portugal support these anecdotal reports. For example, a 2014 meta-analysis of 225 research studies in STEM classes found that students in classes with active learning performed 6% better on exams than students in classes with

traditional lecturing. In addition, students in classes with traditional lecturing were 1.5 times more likely to fail than in classes with active learning. Such findings show the potential impact of adopting a broader array of pedagogical practices on lowering dropout rates and increasing achievement for all students (Freeman et al., 2014[15]).

The pilot project enabled students to experience and value effective elements of curriculum design.

The pilot project gave students the chance to connect with their peers and with adults at school and in the community. It also offered students a more personalised education. These elements of curriculum design allowed student to:

- Learn how to work and learn together with peers (sometimes across different grades).
- Build positive relationships with teachers.
- Make choices that reflect their interests.
- Present their work outside the classroom, while focusing on a goal besides grades. Such presentations include presenting to community members and experts and using relevant knowledge and skills to solve school and community issues.
- Learn things that are relevant to their futures (university work, professional work, becoming a citizen).
- Connect with professionals in the community.
- Experience a diversity of learning methods (e.g. experiential or collaborative learning).

When working on a single project, students reported having more opportunities to make choices and pursue topics of interest to them. They also reported more opportunities to work together with peers, including students in different grades. Students also reported that with the new learning experiences in the pilot project, they were better able to see the connection between what they were learning and what they were going to do at university, in their professional lives and in the community as citizens. For example, they noted that in previous learning experiences, teachers directed what students were to learn and how they were to learn it. Under the pilot project, students noted that self-directed learning, which they were doing more of, was more the way that they expected to learn when they entered university. Students also reported that as a result of being engaged in more self-directed learning, they were learning skills such as time management and how to find information that could not be easily found in textbooks.

Teachers noted some of the same benefits. They reported that one of the most positive results of the project was the altered nature of the student-teacher relationship, as well as more positive relationships with students. In the schools the OECD visited, teachers said that the pilot project caused them to see themselves more as "coaches" or "compasses" guiding student learning. In this context, students did more work in a broader set of contexts, such as contacting community members to ask for assistance in executing their projects.

School leaders also proudly spoke of teachers who were planning projects that would give students the tools to use what they were learning to help their community, such as designing and developing videos to showcase their schools, or proposing how a school water fountain could be fixed to benefit all students in the school. These anecdotal reports of elements of effective curriculum design are supported by additional evidence from outside Portugal (Berger, Woodfin and Vilen, 2016[16]).

Challenges

School leaders face a dilemma when designing curriculum: Teaching for the national exam versus promoting active learning, formative assessment and other pedagogies.

Some teachers saw themselves as caught between two worlds, as they were tasked with pursuing dual goals when designing curriculum. These teachers had to: 1) prepare students for a knowledge-focused national exam; and 2) achieve the broader goals outlined in the student profile. These goals encompass not only knowledge, but skills, attitudes and values.

There were, however, some teachers and students who felt confident that the deeper learning offered by the broader array of pedagogical experiences in the pilot project would help them do better on the national exams. This is a view that could be shared more widely and discussed in tandem with results from research and analysis of data from the pilot project.

Studies examining similar issues in different countries show that deeper learning pedagogies need not be in conflict with preparing students for a national evaluation. For example, research shows that the EL Education school network in the United States has been successful in implementing a similar kind of broad, interdisciplinary, deeper learning curriculum. External evaluators found that on average, students in this school network performed better on state tests than their peers in schools outside of the school network. In reading, in-network elementary school students scored seven points above their peers. Furthermore, in reading, in-network middle school students scored 11 points above their peers, while in-network high school students scored 12 points above their peers. In mathematics, in-network elementary school students scored six points above their peers, while in-network middle school students scored nine points above their peers. Finally, in-network high school students scored eight points above their peers in mathematics (Education, E.L, 2018[17]). A similar analysis could be beneficial in the Portuguese context once data has been gathered.

New curriculum designs might lead to complexities in finding different ways to structure school time, with different degrees of effectiveness.

Autonomy and curriculum flexibility are helpful to schools seeking to create collaborative planning time for teachers. At the same time, however, these efforts invite technical complexities (e.g. how to structure school time, how to arrange interdisciplinary learning when designing curriculum flexibility and more). Some initiatives, like interdisciplinary projects and experiential learning, may even require administrators to restructure school time to allow students to take on more complex projects and experience learning outside of school. As different schools engage in these kinds of endeavours, they may find it useful to explore different ways of structuring school time with different degrees of effectiveness. For example, in all the pilot project schools that the review team visited, teachers reported finding ways to structure school time differently to give themselves common planning time and students' project time. At one of the schools, however, students reported that restructuring school time was not as simple as it sounded. Unless the school time was carefully redesigned, students said they could lose motivation (regardless of whether they felt the projects were relevant to the problems in the real world). For example, the project time at this school was organised by adding extra hours in one afternoon, which used to have no schooling. One of the students from the school

reported that the project time was added in the place of a free time slot in the school schedule; this meant that students lost a free period. Cases such as this illustrate the delicate balance schools must strike when structuring school time to accommodate for curriculum changes. It is important that the pilot project makes it clear that its policies are not intended to take existing flexibility and autonomy from students – and that it does not intend to create more regimented schedules or lower curriculum standards. It is important that the flexible and autonomy curriculum should avoid any misconception about the goals of the flexible curriculum, i.e. it is not intended to "adding more hours" or "lowering curriculum standards".

Cultivating foundational professional practices that enable teachers and students to exercise autonomy and flexibility in designing curricula takes time and sustained commitment. Future governments could consider developing and maintaining such changes.

In order to implement curricular changes, teachers must develop foundational professional practices that help them to achieve new curricular and pedagogical goals. By defining, developing and enacting these new practices over time, teachers can continually improve their practices. Some of the foundational practices that Portuguese teachers could benefit from cultivating and sustaining include:

- prioritising student learning and engagement
- cultivating a culture of learning, trust, creativity and thoughtful risk-taking (Bryk and Schneider, 2004[18])
- regularly practicing faculty collaboration, student collaboration, reflection and action to improve teaching practices, as well as engaging and building partnerships with members of the community and other stakeholders (Darling-Hammond and Richardson, 2009[19]).

These practices are vital, but they cannot be wholly achieved in the short term. Cultivating foundational professional practices that enable teachers and students to exercise autonomy and flexibility takes time. For example, interdisciplinary learning requires teachers in different subject areas to collaborate and learn from each other to find content areas that are amenable to merging. It requires not only students, but also teachers to learn with each other, reflect and iterate their practices (Jones, 2010[20]).

Thus, new pedagogical and curricular practices take time to develop and be implemented and iterated. Because of this, they should be viewed as long-term initiatives that future governments are strongly encouraged to commit to maintaining. Experiences in countries around the world support this imperative. Singapore and Massachusetts both spent decades implementing curricular reforms that maintained the same vision over time. While the two places are similar in size, they had different focuses and took different approaches to their reforms. That said, they were both ultimately successful (Reimers and Chung, 2016[21]).

As schools look for ways to make learning more relevant and adaptive to challenges and opportunities in their communities, school leaders and teachers will need to find, engage and build partnerships with community organisations and other stakeholders. One school the OECD team visited found a way to allow students to visit a nearby mountain to conduct science experiments and environmental studies. They were able to do this by building a partnership with a local community organisation that was willing to provide funding for the buses that transported students. Another school that wanted to increase

student learning and engagement in ICT needed to find ways to purchase more computers and other digital equipment. All of these efforts required finding new ways to marshal resources.

Managing differences between school practices is an additional challenge. Further engagement of non-pilot schools in national initiatives like the programme laid out by the Students' Profile by the End of Compulsory Schooling *will also need to be addressed.*

With autonomy and flexibility come greater differences among school practices. Preliminary discussion with students and teachers about their experiences with the pilot project in the schools OECD visited showed student and teacher enthusiasm about the positive impact of the project on teaching and learning. A challenge facing educational authorities is how to communicate the positive benefits of the pilot project to non-participating schools. Another challenge is how Portugal can offer more students the opportunity to experience this kind of engaged and effective learning, even if their teachers and schools do not opt into the pilot project. As Portugal attempts to make these experiences available to non-participating schools, it should make sure these efforts respect and maintain the principle of autonomy and flexibility.

Policy insights

Portugal could consider continuing to gather feedback from teachers on their experiences with the pilot project. It could also consider continuing to research different models of curriculum design and sharing these models with all schools to ensure equity.

It is important to continue to gather data, input and feedback from school leaders, teachers and students on their experience with the pilot project. In doing so, authorities can identify not only good practices, but ways that teachers and schools can share good practices with each other. Schools already report the benefit of being able to communicate with regional co-ordinators and with each other. When they do so, schools are able to share challenges and solutions. Iterating and developing internal and external school networks to encourage peer learning and provide resources to make regular meetings possible would help spread knowledge about models of effective practices in schools.

Encouraging schools to share their pilot project curricular plans with regional co-ordinators and other schools in their networks could help schools to identify best practices. Specifically, schools could identify how individual pilot projects are designed to meet faculty and student needs. These findings could be shared widely (Collinson and Fedoruk Cook, 2004[22]).

Portugal could consider identifying lighthouse schools so that other schools can visit and observe successful pilot projects and see applications of the student profile and policy in action – while resisting the impulse to standardise.

Sharing different models of success with all schools will encourage designing, implementing, reflecting and iterating new practices. At the same time, it will show school leaders that not every school or teacher needs to do the same thing to be effective.

The OECD's preliminary visits to schools showed that in these schools, leaders and teachers intentionally cultivate cultures of learning, trust and thoughtful risk taking.

The role of schools is not limited to improving student academic performance. Schools should also contribute to ensuring student well-being. In order to do this, schools should cultivate cultures of learning, trust and risk-taking. Academic performance and students' feelings of life satisfaction are not mutually exclusive. High performing countries on the PISA exam, such as Estonia and Switzerland, for example, manage both high levels of student outcomes and high levels of life satisfaction (OECD, 2017[23]). PISA data show that factors that predict poor life satisfaction include anxiety with regards to school work and high Internet use. In contrast, factors that predict high life satisfaction include talking or meeting with friends after school, more physical activity, good teacher support and good parental support. These findings illustrate that Portugal's efforts to foster community, collaborative work, better teacher relationships and more parental involvement in curriculum decisions can have a positive impact on both student academic performance and life satisfaction.

Figure 2.2 Life satisfaction among 15-year-olds
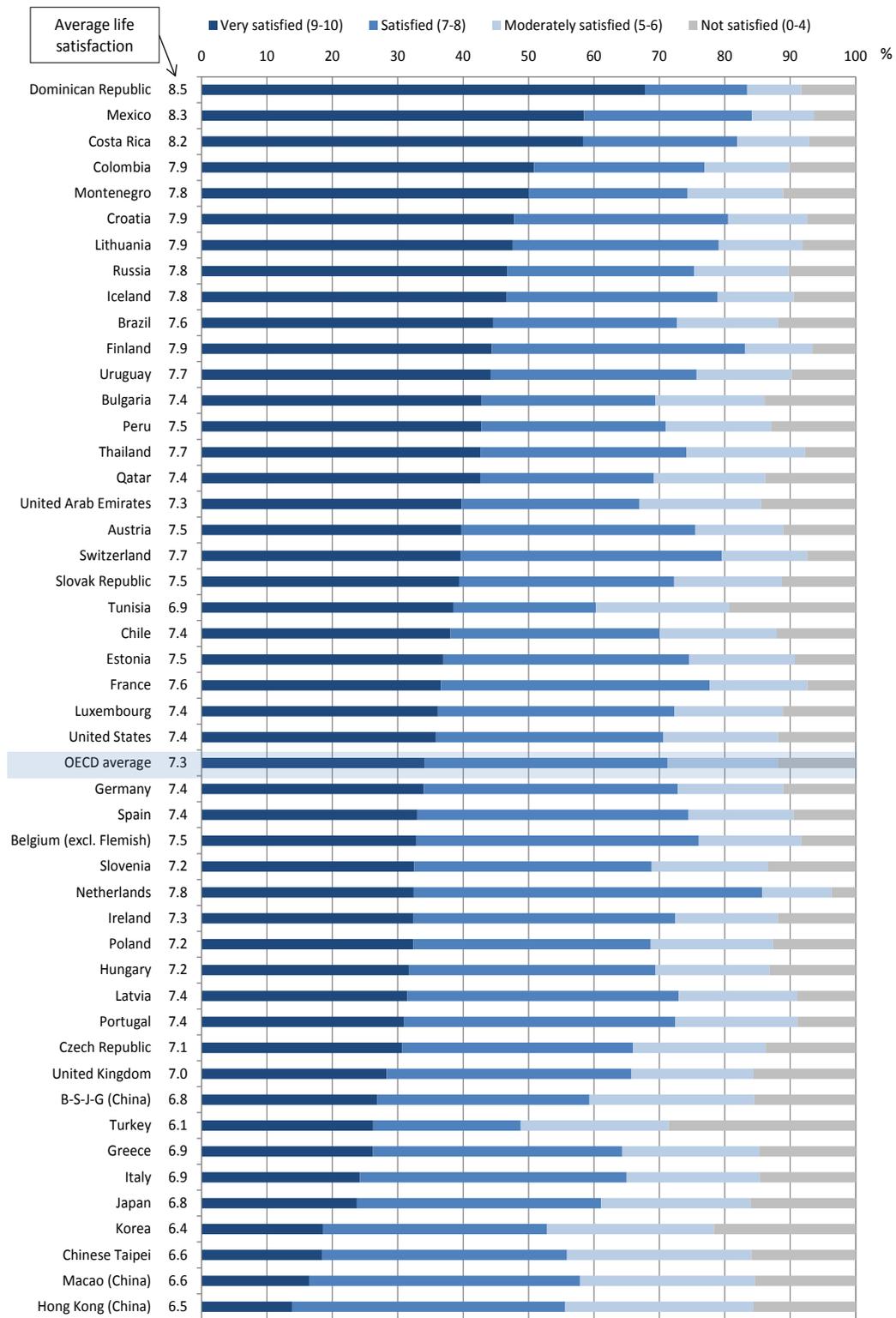
The role of teachers has become increasingly important as schools attempt to successfully implement the student profile and put other policies into action. As the PACF scales up to all schools, Portuguese teachers could consider using the space in the curriculum afforded by the PACF to explore lessening schoolwork-related anxiety for students. Some concrete techniques include diversifying assessment methods, so that students can feel less worried when teachers give tests, grades and tasks (OECD, 2017[9]).

Figure 2.3 Prevalence of schoolwork-related anxiety

Source: OECD (2017), *PISA 2015 Results (Volume III) Students' Well-Being*, http://dx.doi.org/10.1787/888933470845.
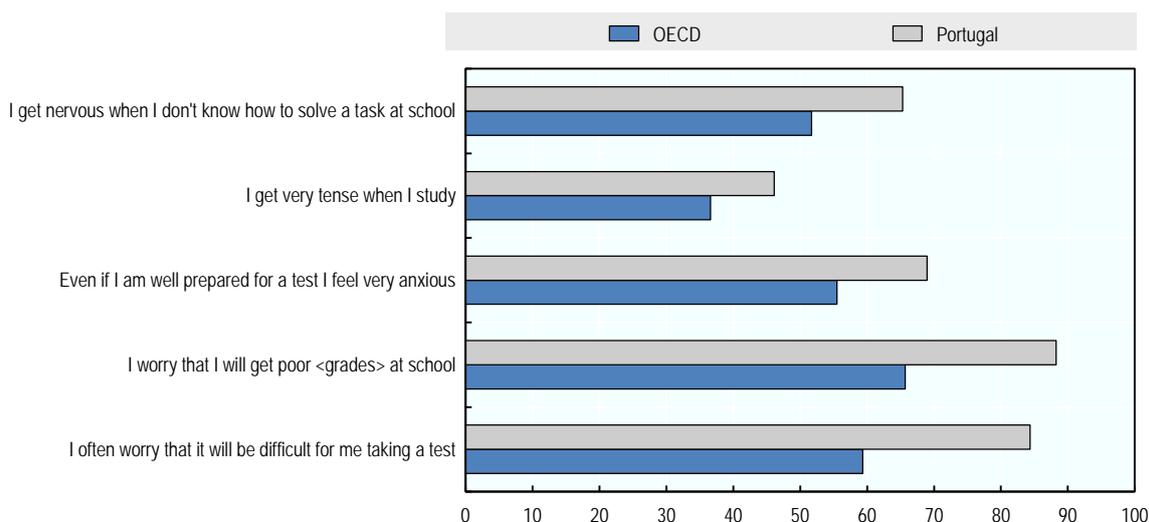
Many teachers working at pilot schools have reported exercising creativity to improve their practices together. Furthermore, these schools the OECD visited had a system for faculty collaboration in place. In these schools, faculty regularly practiced collaboration and communication within a framework of transparency. They accomplished this through peer observation and collaborative discussion of lesson plans, among other practices. They also regulated practices of reflection, and actions to improve methods – including gathering and reviewing relevant school, teacher and student data to know their needs and interests. These schools also engaged and built partnerships with community members and other stakeholders. Sharing the knowledge that these kinds of schools have about these critical areas would be helpful to other schools who want to learn from them.

Portugal could consider continuing to ensure that the pilot project is fully implemented within each participating school to ensure equity and equal access to all students.

Providing teachers and schools with a variety of examples to show them that they can begin the pilot project in a variety of ways, from small to large projects, would help to encourage teachers to try new practices, even if incrementally.

Figure 2.4 Relative performance in collaborative problem-solving by socio-economic status
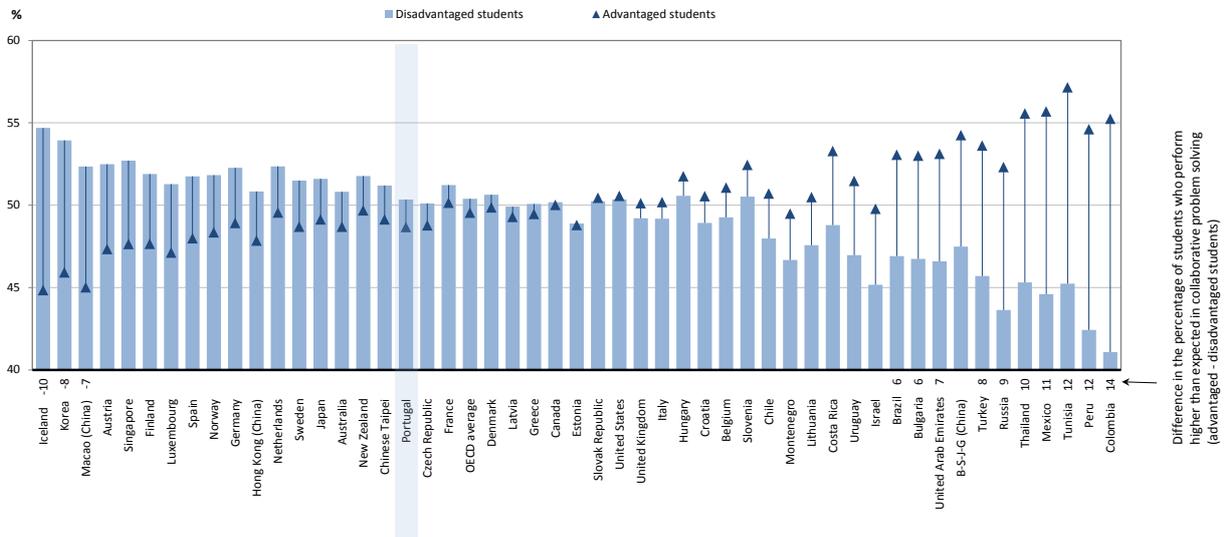
Source: OECD (2017), *PISA 2015 Results (Volume V): Collaborative Problem Solving*, http://dx.doi.org/10.1787/9789264285521-graph20-en.

PISA data show that letting students decide their own learning procedures and processes is positively related to the performance of advantaged students, but negatively related to the performance of disadvantaged students (Figure 2.4). This suggests that disadvantaged students may require more support for them to make well-informed decisions about their learning procedures and that curriculum meant to cultivate student agency needs to be carefully designed to ensure all students will benefit from student-centred curriculum. Furthermore, practices that focus on encouraging student agency need to be implemented with teachers' careful attention to individual students' learning needs and in ways that benefit all students, not only advantaged ones (Figure 2.5).

Figure 2.5 Scores and socio-economic status
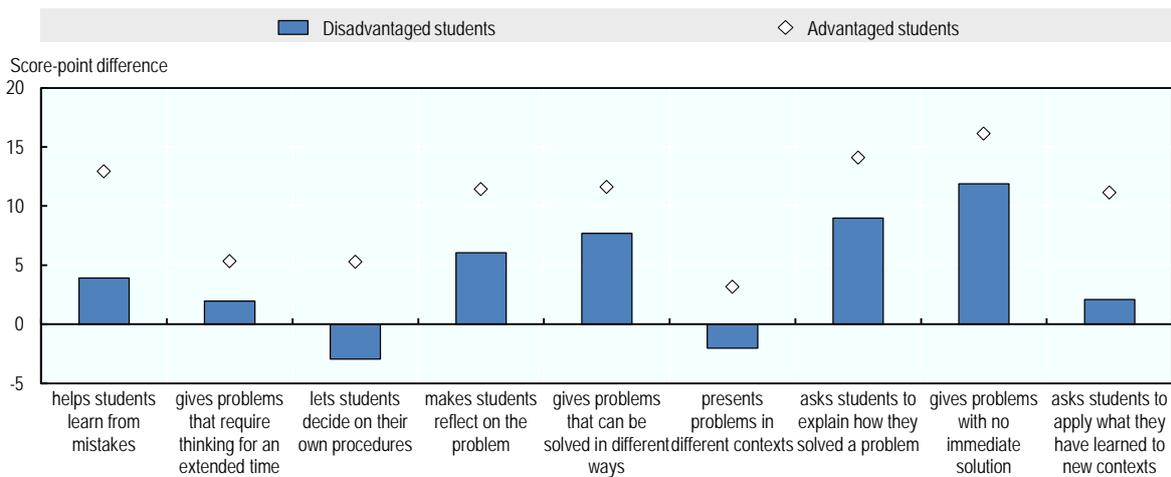
Source: PISA 2012 Database

Portugal could consider clarifying the ICT competencies it wants students to attain to support better and more flexible curriculum design.

Teachers interviewed by the OECD team indicated curiosity and interest in learning more about not only how to teach ICT to students but also how to use ICT to individualise student learning and to introduce more flexible curriculum design. A national agenda for ICT learning could help give these teachers direction. An agenda such as this, perhaps modelled on Portugal's National Strategy for Citizenship Education (ENEC), for example, could be a helpful tool for schools and teachers wishing to understand the kinds of competences and learning students need to achieve in this domain.

In doing so, though, it is important to bear in mind that more technology is not always better (OECD, 2015[24]).

Figure 2.6 Technology in schools and digital skills still do not square

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3. Curriculum implementation

Key messages

- During the pilot phase, the implementation of the Project for Autonomy and Curriculum Flexibility (PACF) is being supported by a clear, consistent and comprehensive implementation strategy at the national level. The structures at the national level deliberately mirror what the project aims to establish in schools. Sustaining the national support structure will be important when the project is generalised to all Portuguese schools. As the project is scaled up, the current culture of a strong sense of community within and across different teams should be maintained to counter bureaucratic tendencies.
- The voluntary nature of curriculum flexibility helps schools to implement innovation in an incremental way. This flexibility allows schools to build on existing strengths within a timeframe that is feasible. It also allows schools to accomplish specific aims that fit the particular student population and wider community.
- The pilot project has helped to identify innovative schools and good practices at the national level, while also helping to identify innovative teachers and good teaching practices within schools. These efforts have shifted certain dynamics in schools. Professional collaboration between teachers is not yet a common practice in Portugal. That said, the pilot project may act as an important device to encourage collaboration between teachers.
- The PACF entails a cultural shift for school leaders and teachers. These cultural changes will inevitably produce tension during the implementation process. Ensuring coherence at the national level between different, concurrent policies will help school leaders to establish coherence within schools and ease the transition. Because leadership is a key factor for success, Portugal could consider prioritising school leadership training and professional development.

Introduction

Education policy development and implementation is fairly centralised in Portugal. Almost half of all decisions about the organisation of instruction and more than 80% of decisions in the domain of management of personnel are taken at the central level of government (OECD, 2012[25]). To ensure implementation of policies at the school level, the Ministry of Education works with a range of bodies. These include: The General Directorate for Education (responsible for providing curriculum standards, among other tasks); the General Directorate for School Administration (responsible for the teaching workforce, among other tasks); the General Directorate for Schools (responsible for promoting school autonomy and ensuring implementation of administrative measures,

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The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

among other tasks); and the National Agency for Qualification and Professional Education (responsible for coordinating the implementation of policies regarding vocational training, among other tasks). Years of research show that top-down approaches to school improvement and innovation are not very successful (Desimone, 2002[26]). Thus, governments in centralised education systems face challenges when they attempt to reform schools and build implementation strategies with strong elements of a bottom-up approach (Hopkins et al., 2014[27]).

The PACF encompasses various elements known to support innovation in schools. The project started with a pilot phase so that all involved actors could learn from the experience. Schools are able to participate in the pilot on a voluntary basis. And, crucially, schools have been given the power to make their own curriculum choices, albeit within legal boundaries. Taken together, these features have empowered schools and teachers to make their own decisions.

While these developments are positive, they also pose challenges. As schools become more autonomous and craft their own approaches to implementing curriculum changes, supporting and monitoring structures at the national level must adapt and learn to embrace variety at the local level. Therefore, Portugal's pilot project does not only pose challenges to teachers and schools, but also to the central administrative bodies supporting schools.

At the national level, a structure to support and monitor schools has been put in place. The structure consists of three types of teams:

Figure 3.1 Types of structure
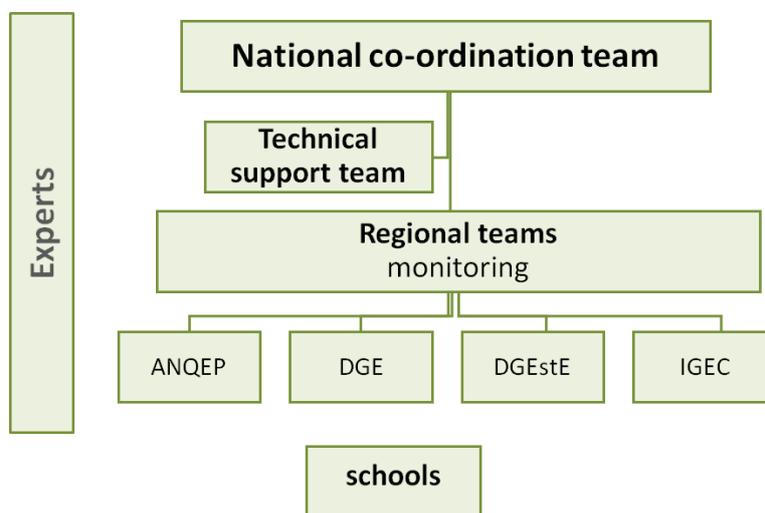
Source: Directorate-General for Education/Ministry of Education.

- Regional teams: A team has been set up to support and monitor implementation in schools participating in the pilot project in each of Portugal's five geographical areas – the North, Centre, Lisbon and outskirts, Alentejo, and Algarve. The number of schools in each region varies from just over ten in the Algarve to almost 100 in the Lisbon region. Four government agencies collaborate within the regional teams: The National Agency for Qualification and Vocational Education and Training (ANQEP), the Directorate for Schools (DGEsTE), the General

Directorate for Education (DGE) and the General Inspectorate for Education and Science (IGEC). Regional teams support schools in different ways. These include: answering any queries schools may have, visiting participating schools, encouraging schools and teachers to participate in regional meetings, and promoting learning between teachers in local networks. The regional teams across geographical areas use the same model to support participating schools in their regions. In addition, they meet regularly to exchange experiences and learn from each other.

- Technical support team: A main task of this team is to ensure alignment – both between the different regional teams, and between the regional teams and the national co-ordination team. In addition, the technical support team collects and analyses data. Because of this, it is also responsible for the project website (http://www.dge.mec.pt/autonomia-e-flexibilidade-curricular) and the Moodle platform which provides webinars, documentation and forums. These digital tools allow those participating in the pilot project to share information, documents and best practices, and to also communicate with a wider audience.

- National co-ordination team: The national co-ordination team is comprised of the heads and directors of the national Agency for Qualification and Professional Education (ANQEP), the Directorate for Schools (DGEsTE), the General Directorate for Education (DGE) and the General Inspectorate for Education and Science (IGEC). The national co-ordination team ensures alignment between different policies, directorates and agencies at the national level. This team regularly discusses questions from schools that touch on national policies. The national co-ordination team is also responsible for project monitoring and evaluation.

The national co-ordination team is supported by the Advisory Council, which is made up of recognised experts in the field. These experts include: Professor Ariana Cosme, Professor Isabel Valente Pires, Professor Joaquim Azevedo, Professor José Matias Alves, Professor José Verdasca, Professor Rui Trindade and Professor Ricardo Rodrigues.

Officials and staff involved in Portugal's pilot project convene regularly and keep in close contact via network meetings with participating schools, regional meetings and national meetings. The number of people involved in the pilot project's support and monitoring structure at the national level is relatively small. This means that communication is relatively direct, and participants can feel like they are part of the same community.

Curriculum implementation: The national level

Strengths

Portugal has a clear, consistent and comprehensive innovation and implementation strategy at the national level.

Portugal's pilot project has incorporated several elements of a bottom-up approach to encourage curriculum changes in its schools. From the outset, officials have understood that to make the project a success in schools, structures at the national level must adapt accordingly. Research shows that alignment of policy and people across the education system as a whole can create important conditions for change (Honig, 2004[28]) (Honig, 2006[29]). Portugal is working hard to achieve this aim.

The support and monitoring structure accompanying Portugal's pilot project has ensured both people and policy alignment. Prior to the pilot project, regional co-ordinators developed a model to support schools so that regional teams could work in a similar way with schools and learn from each other. As stated prior, the number of people involved in the pilot project at the regional and national levels is relatively small, so communication is direct and personnel are able to align their activities. The technical support team co-ordinates the work of regional teams, so that schools all over the country have access – through the regional teams – to the same information and experience-based knowledge. The national co-ordination team brings together decision makers from the most relevant directorates and agencies at the national level. It also plays an important role in ensuring policy alignment at the national level.

The implementation strategy mirrors the principles of the project itself, such as "practice what you preach"

From the outset, Portugal's implementation strategy aimed to mirror the principles of the project itself. In other words, policy makers endeavoured to create an implementation strategy that was flexible, and promoted dynamic practices, reflection and communication within and between the different teams. Authorities have faced challenges in achieving this aim. It has required learning and adaptation at the national level, and a commitment to putting learning at the centre of the national implementation strategy. Furthermore, regional teams have had to learn share their experiences, reflect on their practices, learn mutually in networks and meetings, and adapt their practices accordingly. The technical support team has bolstered mutual learning between regional teams, and also communicated experiences in regions with national decision makers. At the national level, different government departments and agencies have worked together through the national co-ordination team. In this way, capacity has been built at the regional and national levels, as well as across those levels. This is important, as capacity building at all levels of the education system is known to be an important lever for continuous change (Hopkins et al., 2014[27]). With this collaborative and reflective practice within and across teams, Portugal's implementation strategy has been able to mirror the aims the country hopes to promote in schools. This is because authorities involved in the pilot project at the regional and national level practice what they preach when they work with schools.

Challenges

Scaling up the Project for Autonomy and Curriculum Flexibility (PACF) at the national level can pose certain risks.

Around 200 schools volunteered to participate in Portugal's pilot project. Authorities envision that the pilot will last one year and will be followed by legislation that makes the PACF applicable to all schools in the country. This means that more than 7 000 Portuguese schools offering basic and secondary education will be given the opportunity to experience the PACF. It will be up to the schools to decide whether, when and how much curriculum flexibility they want to introduce. Nevertheless, the number of schools working with curriculum flexibility is likely to grow vastly. Research shows that more rules and procedures are required to co-ordinate the actions of all those involved to ensure equal opportunities among the schools when projects and organisations scale up (Hoy and Sweetland, 2001[30]). Scaling up any initiative at the national level therefore comes with the risk of increased bureaucracy. At the same time, it is timely to consider process innovations to lessen the burden of bureaucracy while exploring pedagogic innovations

because research suggests, for example, innovations chain in education (including both process innovations and pedagogic innovations) seem to positively influence school performance (Haelermans and De Witte, 2011[31]).

During the pilot phase of the PACF, the vast majority of involved actors at the national level knew each other by name and felt like they were part of the same community. The short lines of communication enabled information and practices to be shared quickly and on an informal basis. As the project scales up, it is critically important to find ways to maintain this informal and human-centred way of working and the quick workflow that characterises the current implementation strategy.

Policy insights

To benefit from the pilot projects' strengths, Portugal could consider continuing to cultivate its project community.

To counter bureaucratic tendencies and avoid introducing unnecessary regulations and procedures, Portugal could consider cultivating its project community at the national level. Research shows that informal social networks and ties between people involved in reform enhance change and innovation (Honig, 2003[32]). Short lines of communication between regional teams, investing in social networks, informal social relations and face-to-face contact between those involved can help to keep communication direct and clear. In order to achieve this, Portugal can organise events that ensure that involved actors meet each other in person to socialise and exchange information and ideas.

Portugal could consider keeping a close eye on maintaining the balance between autonomy, capacity and accountability.

More autonomy for schools should go hand in hand with more capacity within schools, particularly in terms of leadership by teachers, school leaders and directors. More autonomy for schools should be accompanied by an appropriate form of monitoring by the central government. Thus, Portugal should consider allowing schools with proven leadership capacity more autonomy so that they can take on roles as lighthouse schools or models for other schools.

Curriculum implementation at the school and teacher levels

Strengths

The voluntary nature of the pilot project and the flexibility given to schools ensures incremental change for school leaders and teachers.

In the field of education, incremental change is often more sustainable than radical change (Florian, 2000[33]) (Hargreaves and Goodson, 2006[34]). At the same time, transformative change is needed to ensure that changes will be beneficial for all, not just for a selected group (Goldin and Katz, 2008[35]). For schools, establishing a collective process of continuous learning and improvement is a promising avenue for implementing reforms (Harris, 2011[36]) (Jones and Harris, 2014[37]). At the school level, collective capacity building refers to teachers who reflect on their practices, work together to improve instruction and student learning, and disseminate experience, expertise and good practices throughout the entire school. School leaders play a crucial role in capacity building at the school level (Marsh and Farrell, 2015[38]).

Portuguese schools joined the pilot project on a voluntary basis. Schools were given the option to choose which grade or grades they wanted to introduce curriculum flexibility into, and in what way – as long as the choices they made adhered to the legislation. This setup has allowed school leaders to make deliberate and informed choices about where to start the implementation process in their schools. It has also allowed school leaders and teachers to view actual teaching practices as the starting point from which they can develop long-term goals. This system encourages schools to adopt a strategy of incremental change.

Furthermore, it lets schools build on existing teaching practices, co-ordination mechanisms and decision-making structures. For example, one of the schools the review team visited caters to a wide variety of students. The school started working with project-based learning a number of years ago to combat early dropout. The school works with a private organisation of project managers. Professionals in this organisation support the school on a voluntary basis by supporting teachers as they develop projects according to the principles of project management. The experience of having worked on projects has been very useful to these teachers and school leaders who are now faced with implementing curriculum changes. Their previous experiences inform the decisions they make going forward, while the new curricular flexibility allows them to accelerate changes that were already underway.

Another school the OECD review team visited caters to students who tend to continue their education in universities outside of Portugal. For this school, one of the motives administrators had for redesigning their curriculum was the changing nature of what is required of students in higher education.

What these examples indicate is that the setup of Portugal's pilot project allows schools to start from different points and follow different trajectories, according to their needs. Studies show that innovation succeeds in schools with these kinds of flexible conditions (Desimone, 2002[26]).

Portugal's pilot project helped identify enthusiastic school leaders and teachers who exercise good practices. These teachers and leaders can help the system as a whole by sharing their knowledge (e.g. of successful pedagogy and teacher collaboration).

Prior to Portugal's current reforms, the kind of curriculum innovation the pilot project hoped to achieve already existed, to some extent, in an unknown number of schools. In some cases, teachers already collaborated and engaged in cross-disciplinary practices. These methods were the remnants of policies and projects that were introduced decades ago. Regional co-ordinators in the country mentioned, for example, that up to ten years ago, it was common practice in Portuguese primary schools to work with an integrated curriculum. A policy that was introduced since explicated the number of hours a school must spend on specific areas of the curriculum. Although this policy did not intend to do so, many schools interpreted the guidelines as an obligation to work for a certain amount of time on each school subject in primary schools. In some of the primary schools, the PACF revived practices the schools were historically familiar with but had not engaged in for some time. In other instances, collaboration and interdisciplinary work were initiated by enthusiastic school leaders and teachers who experimented with making the curriculum more relevant and motivating for their students. In one of the schools the OECD review team visited, the school leader and a group of committed teachers had been working for a number of years on interdisciplinary workshops for students. Their aim was

to give students a more active role in learning, which aligned closely with their pedagogical vision. The pilot of the PACF encouraged these schools that already had some experience with curricular flexibility to identify themselves to educational authorities. In doing so, the pilot has helped make visible what is already happening in schools. Furthermore, the pilot has provided a spotlight for schools and teachers who can put their experiences with curriculum reform on display. One example of this is secondary schools who have shown how teachers of different subjects can and do collaborate.

By identifying what is already a reality in schools, the pilot project puts the focus on actual practices rather than planning or discussions about feasibility. The schools that were visited by the OECD testified to this hands-on approach. Rather than spending a lot of time on planning changes in the curriculum, teachers in these schools worked with very short cycles of planning, execution and evaluation. These short cycles enhanced teacher learning. The OECD review team saw examples of teachers jointly developing lessons. In these cases, one teacher gave the lesson and then the two teachers reflected on its outcome. Subsequently, they made adaptations, and the other teacher gave the adapted lesson.

Figure 3.2 Teacher co-operation: professional collaboration
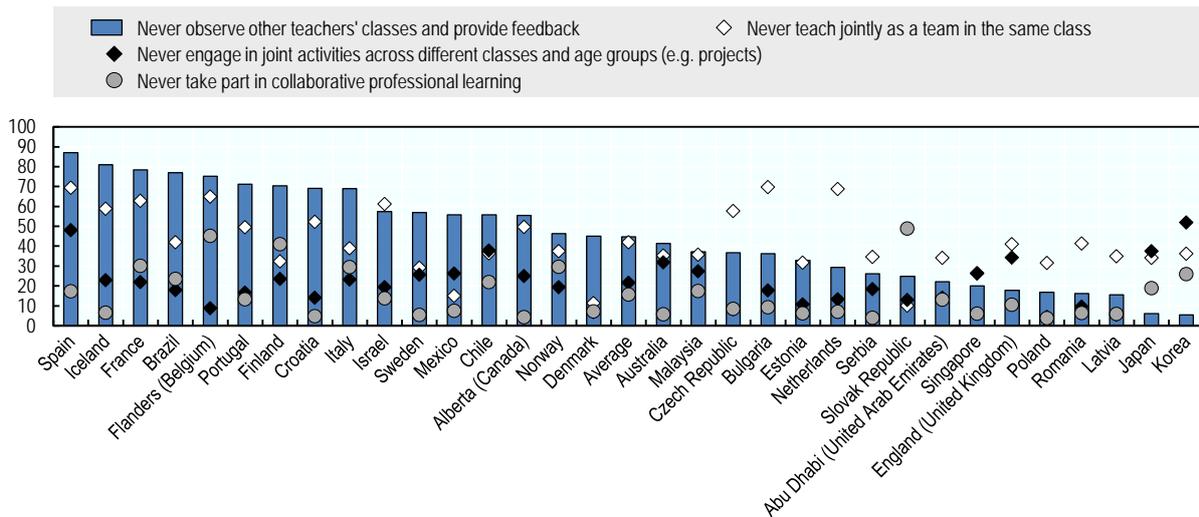
Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning* (database), http://dx.doi.org/10.1787/888933042086.

The pilot project has empowered exemplary teachers by legitimising and endorsing good practices that were perhaps undervalued in the past. Results from the OECD's Teaching and Learning International Survey (TALIS) show that professional collaboration has not been a common practice among Portuguese teachers in secondary schools (see Figure 3.2). Nonetheless, in many schools, there are teachers who encourage student agency, who experiment with curriculum innovation and who aim for active learning. The OECD review team saw examples of such practices in all the schools they visited. These practices included: experimenting with active pedagogies in language lessons, working with teams of students in history lessons, making mathematics more playful and connecting assignments to real world problems. While these kinds of innovative lesson plans are commendable, they are not commonplace. In fact, historically, many of the

teachers who have tried these experimental pedagogies have worked on the periphery of their schools and have felt isolated from their colleagues.

The TALIS results also point to another issue. While teachers in many countries engage in professional collaboration and curriculum innovation, they do not always feel rewarded for these efforts. In schools around the world, many teachers referred to schools as rather innovation-hostile environments. For example, just one-quarter of teachers said they would be rewarded if they were more innovative in their teaching (in TALIS, rewarded refers to any form of recognition, monetary and otherwise). The figures are particularly low in Belgium, Ireland, Denmark and Australia. A higher percentage of teachers, though, said innovative practices would be taken into account when teachers were evaluated and given feedback. While this is a step in the right direction, all teachers should feel encouraged to practice collaboration, curriculum innovation and student-centred learning, and should be rewarded for doing so in a professional manner (OECD, 2014[39]).

In Portugal, many teachers who had practiced innovative teaching and collaboration for years or who for the first time explore innovative teaching and collation were not sure if what they were doing was "right". The pilot project has legitimised what these teachers have been doing and endorsed their good practices. Because of this, innovative teachers have been taken out of their isolation. Furthermore, their experiences and practices have been made the centre of attention. In this way the project has inspired a different dynamic in schools. Going forward, it can unleash new energy for change – without making any changes to teaching staff. The pilot also gathered emerging evidence of teacher innovation, leadership and creativity (e.g. how to use the new space in the curriculum to promote instruction that cultivates student passions and capacities, and helps students personalise their learning and assessments in ways that foster engagement and talents). In addition, the pilot could be used to start exploring the effects of new teaching practices and curricular flexibility on teacher well-being (e.g. job satisfaction, teacher empowerment and teacher self-efficacy).

Challenges

The pilot project has caused a cultural shift among school leaders and teachers. Now, they must not only prepare students for the national exam, they must also adjust to a more collaborative form of working, to different roles as teachers and to valuing student agency and co-agency in the classroom.

Participation rates in tertiary education have increased rapidly in Portugal over the last decades, but they are still substantially lower than the educational goals set by the Portuguese Ministry of Education (OECD, 2017[40]). Encouraging students to enter higher education has therefore been, and still is, an important goal for education policy in the country. National exams at the end of secondary school play a crucial role for students hoping to gain access to tertiary education in Portugal. Many students and their parents understandably attach great value to these exams. Scores on national exams are also an important component of the reputation of secondary schools (Santiago et al., 2012[10]). Given this context, it comes as no surprise that teaching in secondary schools is geared towards preparing students as best as possible for the national exam. This focus comes with a subject- and teacher-centred approach to teaching, and a culture in which covering the compulsory curriculum content in lessons is highly valued. (Santiago et al., 2012[10]).

Portugal's *Students' Profile by the End of Compulsory Schooling* and the PACF call for a more student-centred approach to learning, student-activating teaching methods and shifting more responsibility for learning to students themselves. A student-centred approach to learning encourages deep learning. Studies show that learning environments are important catalysts for deep learning by students (Baeten et al., 2010[41]). For instance, the perception of students that their voices are heard and valued in schools supports deep learning. The same holds true for more student-centred relationships between teachers and students and a collaborative climate between teachers themselves. Innovations in the curriculum towards student-centred approaches, a school culture that values collaboration, student independence and student agency (Baeten et al., 2010[41]) all help achieve a school culture where students can act as agents of their own education. That said, these practices may create tensions in schools that follow a subject- and teacher-centred approach.

Teaching workforce structure and status: Portugal has few young teachers and the teaching profession has a low status.

The average age of a Portuguese teacher is around 46 years old, which is close to the OECD average (OECD, 2017). What this average conceals, however, is the distribution of teachers over different age groups. Compared with other countries, Portugal has a very low number of teachers below the age of 30. In both primary and secondary education, only 2% of Portuguese teachers fall in this age group (OECD, 2016).

In addition, as Figure 3.3 shows, only a very small number of Portuguese teachers feel that teaching is valued in society. It can affect the quality of the teaching workforce, for example, "such perception can affect the number and quality of the candidates wishing to enter teaching, as well as the retention of teachers already on the job" (TALIS, 2014[42]) Feeling valued not only contributes to job satisfaction of current teachers, but also attracts young people to choose for the teaching profession.

More importantly, in top performing systems, teachers are likely to report that their profession is valued by society. Figure 3.3 shows that there is a positive relationship between teachers' perceptions of being valued by society and a country's share of PISA mathematics top performers.

These issues pose a significant challenge, particularly over time. Teaching must become more innovative and dynamic if the profession is to gain better status and recognition. And the teaching profession will only attract sufficient numbers of young people if they see the profession as appealing.

Figure 3.3 Relationship between the perceived value of the teaching profession and the share of PISA top performers (mathematics)
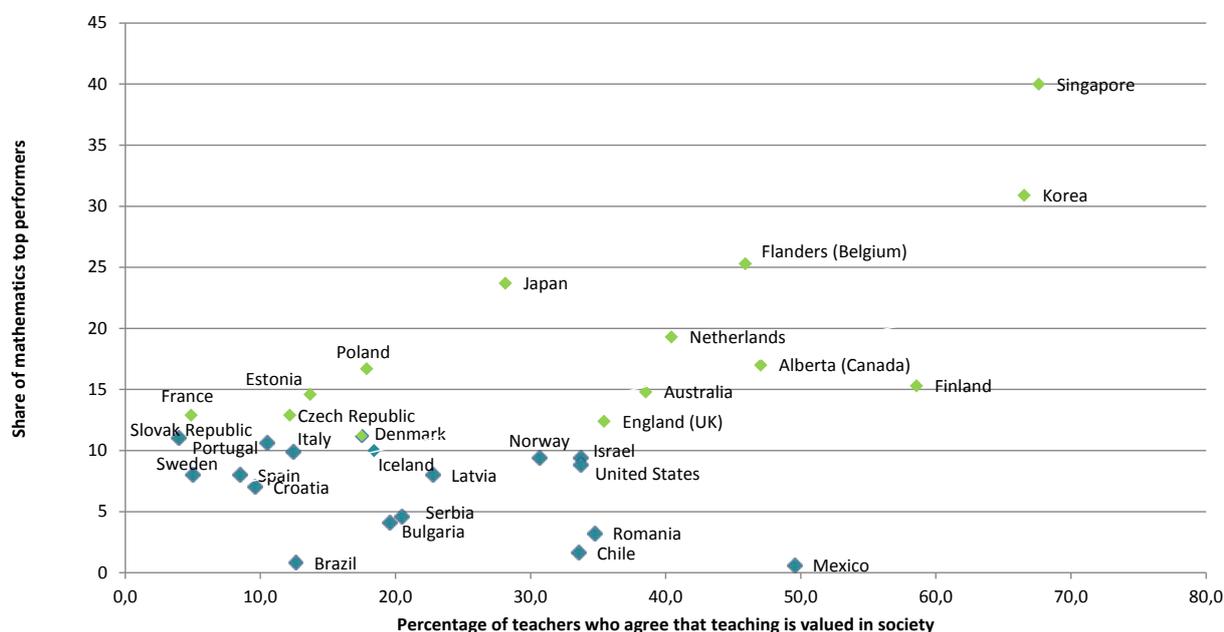
Source: OECD, Teaching in Focus - 2014/05, TALIS 2013 and PISA 2012 Databases.

While autonomy and flexibility give teachers the chance to experiment pedagogically and put students at the centre of learning practices, this very flexibility means that different degrees of curriculum innovation occur within and across schools.

The voluntary nature of the pilot project and the autonomy granted to schools encourages schools to build on their existing practices and travel their own paths to innovate the curriculum. As the examples provided earlier in this chapter show, pilot schools work on different kinds of curriculum innovations, which is exactly what the project aims for. Inherent to this approach is that the degree of curriculum innovation will continue to vary, both within schools and across schools.

It is inevitable that some teams of teachers of certain grade levels or subjects may be more willing or reluctant to institute changes. Some teachers may also find it more difficult to innovate the curriculum than other teachers in the same school. For example, in several, but notably not all schools the review team visited, mathematics was considered a subject that was more difficult to integrate into interdisciplinary projects. From the viewpoint of students, this meant that they came to experience very different teaching styles in the same school. Studies show that student experiences may act as levers for further change, but they can also give rise to tensions between teams of teachers. (Forkhosh-Baruch et al., 2005[43]). School leaders have an important role to play in ensuring sufficient coherence in the curriculum as a whole, and in building community (Southworth, 2002[44]).

More autonomy for schools can be very advantageous for student learning and student performance, but it also comes with a risk of increasing differences between schools and increasing inequalities. Accountability measures are important to counter these risks.

(Wößmann, 2007[45]). The implication of these lessons from extended international comparative research is that more autonomy and curriculum flexibility can pose an equity risk.

Figure 3.4 Policy levers to teacher professionalism
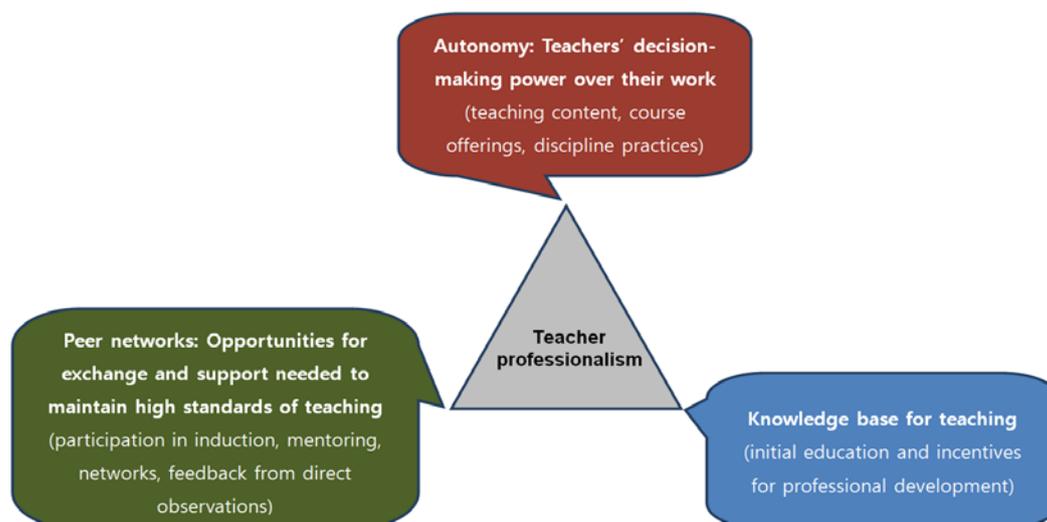
Source: OECD (2016), *Supporting Teacher Professionalism: Insights from TALIS 2013*, TALIS, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264248601-en.

While in some schools, autonomy and curricular flexibility gives students with diverse needs more access to learning opportunities, this is not always the case. The risk is that some groups of students will have easier access than others to a curriculum that is engaging, builds on a pedagogy which helps them be active learners and is relevant to them (OECD, 2016[7]). It is critically important to ensure that all students benefit from curriculum innovations by prioritising the preparation of teachers and school principals.

Policy insights

### *Portugal could consider ensuring continuity of past, present and future policies.*

To underscore an approach of incremental change, educational authorities should fight the perception that the curriculum autonomy and flexibility project is completely new and different. Rather, it should be seen as the next step in a longer and broader process. Policy coherence can be achieved by linking lessons learned from past projects with the good practices that are encouraged by current policies. An example of this is Class +, a programme which encourages schools to opt for non-traditional and flexible ways of grouping students, such as grouping students not on the basis of set grade levels, but on the basis of needs. Other good practices include an examination of how schools deploy teacher credit hours to develop their own projects. Another exemplary programme is TEIP, which allows schools in areas with specific challenges to develop local solutions. The linking of past projects with the good practices promoted by current policies will further the aims of the project for curriculum flexibility. Such a method will also make it easier for schools to achieve coherence in their own school-based policies. (Honig and Hatch, 2004[46]).

Portugal could consider prioritising school leadership training.

School leaders, and in particular principals who are responsible for a school as a whole, play a critical role in implementing the pilot project in schools. The role these leaders play can hardly be overstated: they are key contributors to the professional development of individual teachers; they help organise teacher collaboration; they oversee school facilities and support teachers; they ensure sufficient coherence across the curriculum; and they are responsible for capacity building in a school as a whole (Robinson, Hohepa and Lloyd, 2008[47]) (Marsh and Farrell, 2015[38]). School leaders are also important role models when it comes to collaborative practices, student-centred approaches and encouraging teacher and student agency (Robinson, Hohepa and Lloyd, 2008[47]). Despite this, leadership is not well developed in Portuguese schools. (OECD, 2014[48]).

School principals in lower secondary education in Portugal show comparatively little involvement in some types of leadership activities. Results from the OECD's TALIS study show that only 5% of these principals reported observing instruction in the classroom in 2013. This is by far the lowest percentage among OECD countries and partner economies. Some 61% of school principals reported having worked on a development plan for the school, compared to 77% on average among OECD countries. 23% of lower secondary principals in Portugal did not participate in any professional development activities in 2013, compared to the OECD average of 9%. As Figure 3.5 indicates, observing instruction in classrooms and working with teachers to improve instruction is hardly included in principals' formal training.

Figure 3.5 Elements not included in principals' formal education
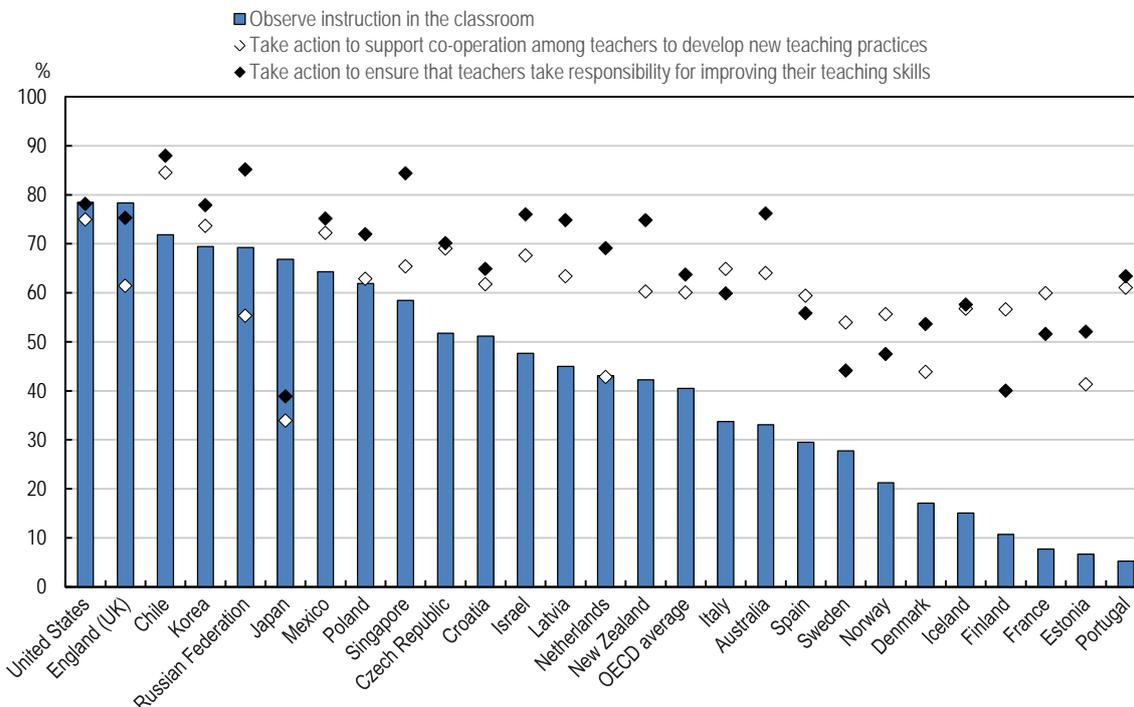
Source: OECD (2016), *Education at a Glance 2016: OECD Indicators* http://dx.doi.org/10.1787/888933399319.

Figure 3.6 Level of pedagogical leadership in Portugal

Legend: ■ OECD average □ Portugal

Categories (top to bottom):
- When a teacher has problems in his/her classroom, I take the initiative to discuss matters
- I monitor students' work
- I give teachers suggestions as to how they can improve their teaching
- I use student performance results to develop the school's educational goals
- I observe instruction in classrooms
- I ensure that teachers work according to the school's educational goals
- Professional development activities of teachers in accordance with the teaching goals of the school

X-axis: 0 10 20 30 40 50 60 70 80 90 100

Source: OECD (2010), *PISA 2009 Results: What Makes a School Successful? (Volume IV) Resources, Policies and Practices*, http://dx.doi.org/10.1787/888932343418.

Given the critical role and leadership of principals especially in the effective curriculum implementation, whether, how and to what extent curriculum flexibility is implemented in schools will depend in great part on how school leaders take this challenge. Professional development of school leadership therefore deserves priority. This can take the form of formal training, as well as informal methods, such as learning in professional networks of school leaders.

Portugal could consider using the pilot project as an opportunity to develop a new culture of teacher collaboration and teacher feedback.

Co-teaching, collaborative work and providing colleagues with feedback is not yet common practice among most Portuguese teachers (OECD, 2012[25]). % 13,2 % of teachers, among those who took part in the TALIS 2013, answered "never took part in collaborative professional learning", which is fairly good; however, 71,2 % of the teachers reported "never observe other teachers' classes and provide feedback", making Portugal the country with by far the lowest participation levels (see Figure 3.7) (OECD, 2014[39]).

Figure 3.7 Teacher co-operation: Professional collaboration
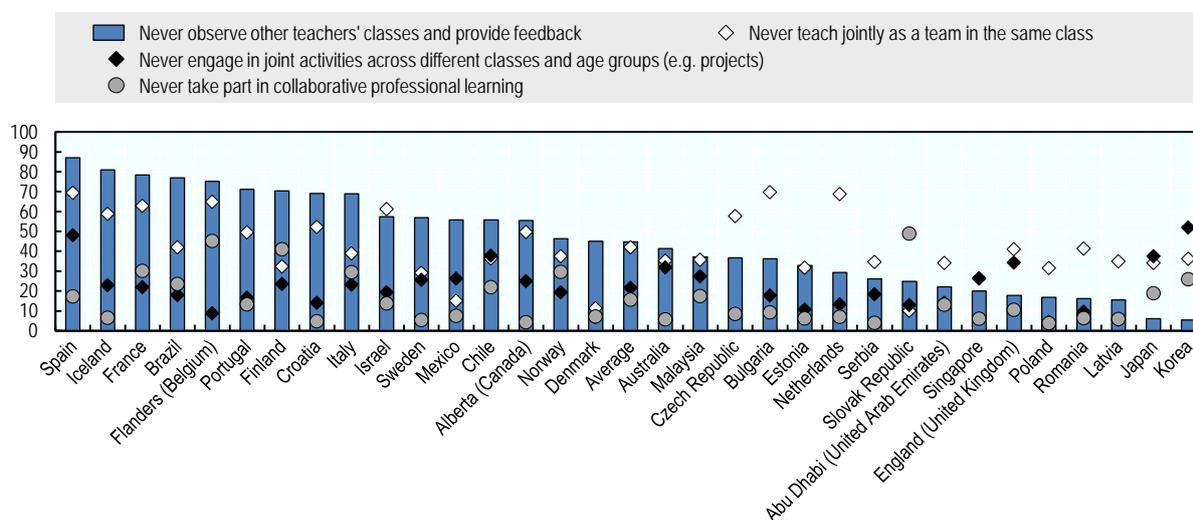
These teacher practices support capacity building by teachers, which is an important feature of continuous and sustainable change in schools (Desimone, 2002[26]). Such practices can also enhance teachers' self-efficacy (OECD, 2014[39]).

Figure 3.8 Teacher self-efficacy and professional collaboration
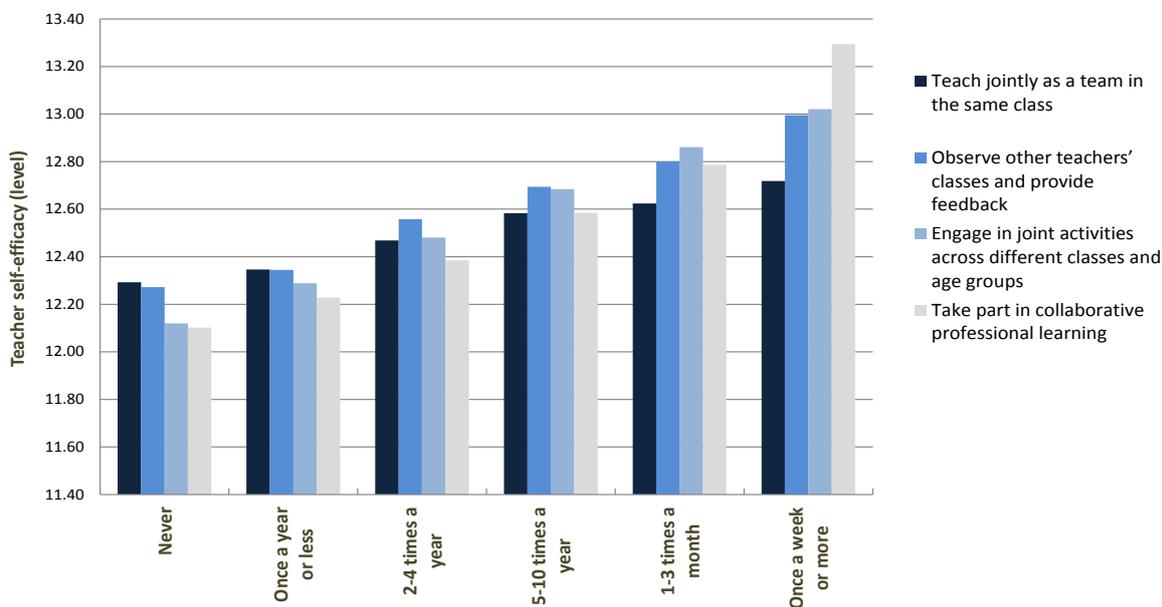
Collaborative practices among teachers can take on different forms. Figure 3.8 shows how engaging in different collaborative methods are related to teacher self-efficacy. The

more frequently teachers are involved in collaboration, the higher their self-efficacy. Considering the importance of collaboration, it is useful to examine how frequently teachers engage in it. International studies show a mixed picture. When it comes to informal exchange and co-ordination, teachers are generally very active. Portugal (see Figure 3.9) is no exception; relatively high numbers of teachers in the country are involved in team conferences and report sharing resources. Moreover, teachers report discussing the learning development of specific students, ensuring common standards of student assessment and engaging in collaborative professional learning. When it comes to more intensive forms of collaboration, such as team teaching, joint activities and classroom observations, far fewer teachers state that these activities are a part of common practice. Studies show that Portuguese teachers practise less joint teaching of the same class and engage in fewer teacher observations and feedback sessions than the OECD average (OECD, 2017[49]). This is unfortunate, because these latter activities contribute in particular to teachers' self-efficacy.

Figure 3.9 Professional collaboration among teachers
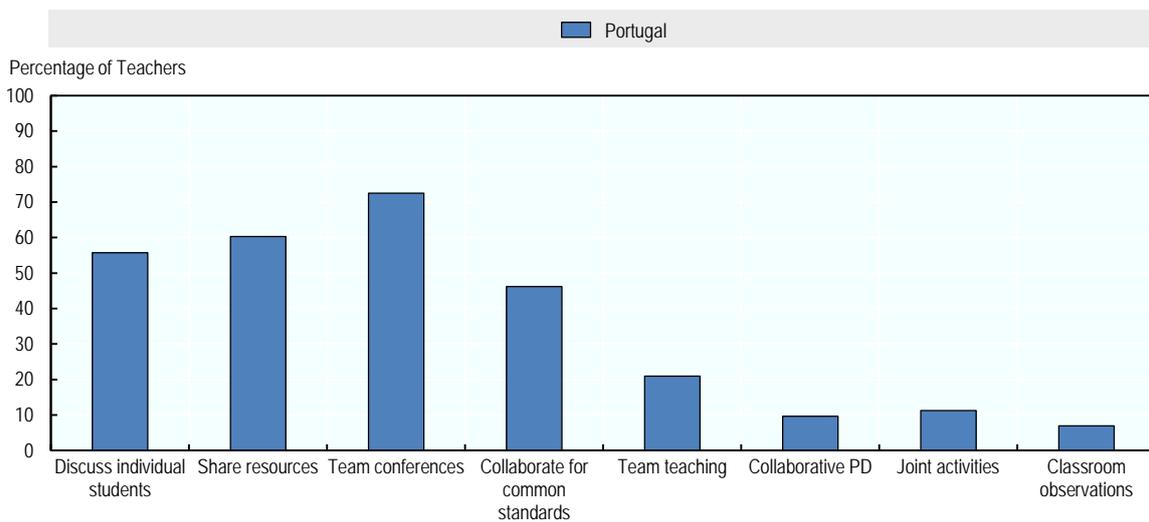
Note: PD stands for professional development.
Source: OECD TALIS 2013 Database

Figure 3.10 Teachers feedback: direct classroom observation
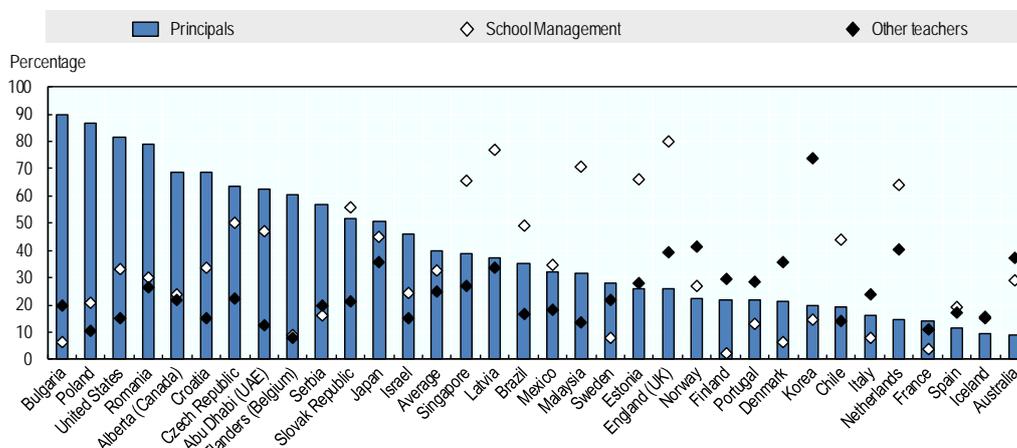
Source: OECD, *TALIS 2013 Database Tables 5.5.Web.2, 5.5.Web.3 and 5.5.Web.5.*

Figure 3.11 Teacher-teacher relationships
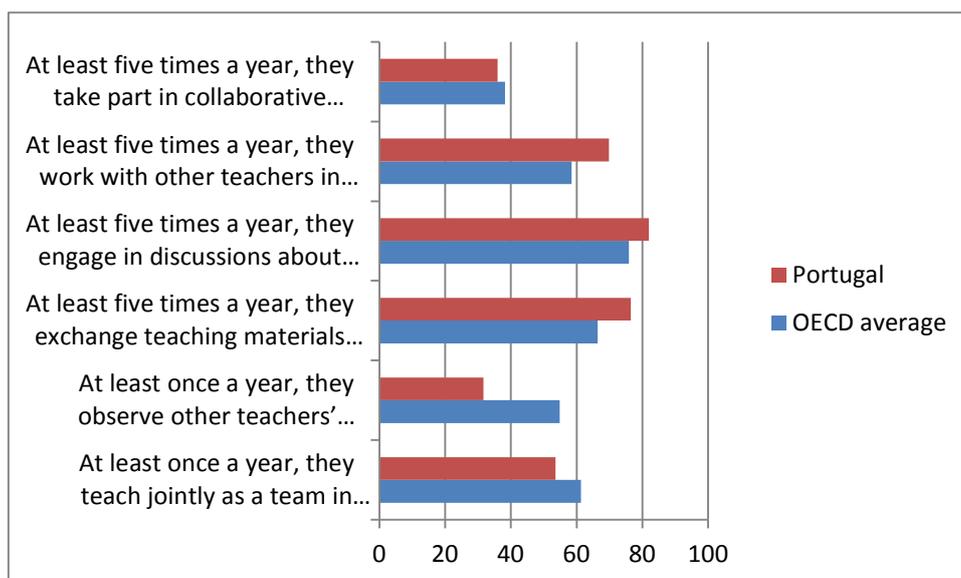
Source: OECD (2016) *PISA 2015 Results (Volume V): Collaborative Problem Solving*, http://dx.doi.org/10.1787/9789264285521-graph44-en.

Portugal could consider creating a new path to the teaching profession as a part of its preparations for the retirement of a large portion of the country's teaching workforce. This new path could include pedagogical support qualifications for areas like information and communications technology (ICT), as well as project management.

Portugal's teaching workforce is ageing fast. The share of secondary education teachers over 50 increased by an average of 6% per year between 2005 and 2014. In preparation

for the retirement of the current teaching workforce, Portugal could consider preparing a qualified future teaching workforce.

To make the transition as smooth and effective as possible, the country could consider adopting flexible recruitment arrangements. These arrangements are used in countries where alternative paths to the teaching profession are made possible by recognising professionals' prior experiences as relevant to teaching (e.g. recognition of prior learning, validation of experiential learning, accreditation of prior experiences and more).

However, setting up a system of recognition of non-formal and informal learning requires careful planning – so as to ensure the credibility of such recognition, its validation and accreditation (Werquin, 2010[50])Strategically, some forms of qualifications for teaching support staff can be prepared and carefully designed so that the credits contained in the qualifications can be transferred towards a teacher's qualification.

Establishing alternative qualifications could be beneficial in cases where teachers are teaching specialised and professional content. The areas the review team identified include information and communications technology (ICT) pedagogical support staff, and pedagogical support for project management and project-based learning. By opening up the profession, the burden on current teachers for teacher training could be alleviated – as other professionals step in to train teachers on specialised content.

Portuguese teachers use those teaching practices that are in line with current initiatives, e.g. promoting project-based learning and teaching, digitalisation, etc. less often than the OECD average. These practices include: "students work in a small group to come up with a joint solution to a problem or a task", "students work on projects that require at least one week to complete", and "students use ICT for projects or class work" (Figure 3.13).

Figure 3.12 Teaching practices by country
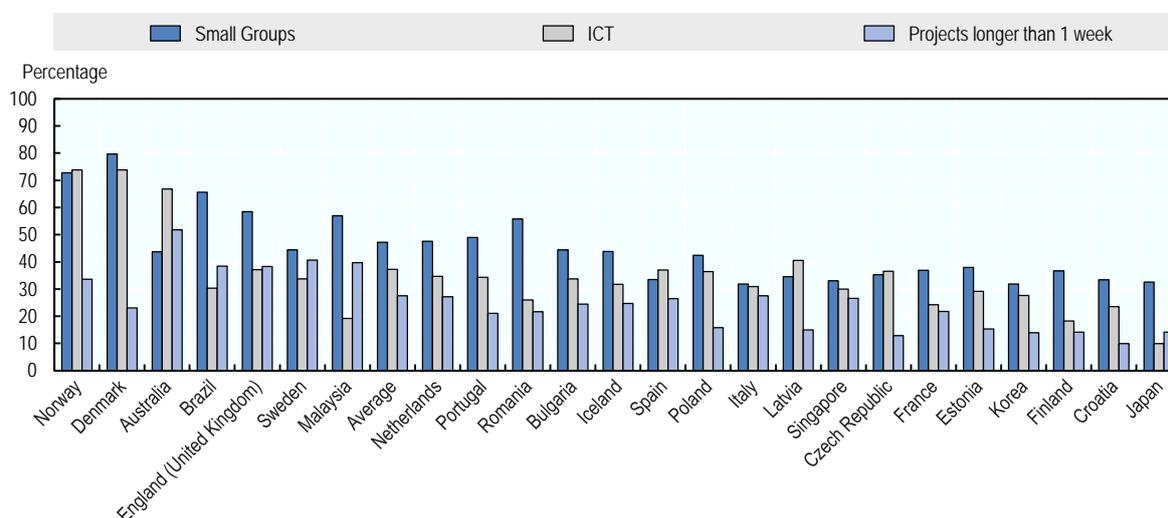
Source: OECD (2014) *TALIS 2013 Results: An International Perspective on Teaching and Learning*, http://dx.doi.org/10.1787/8889330419.

Figure 3.13 Teacher's skills and readiness to use ICT for problem solving
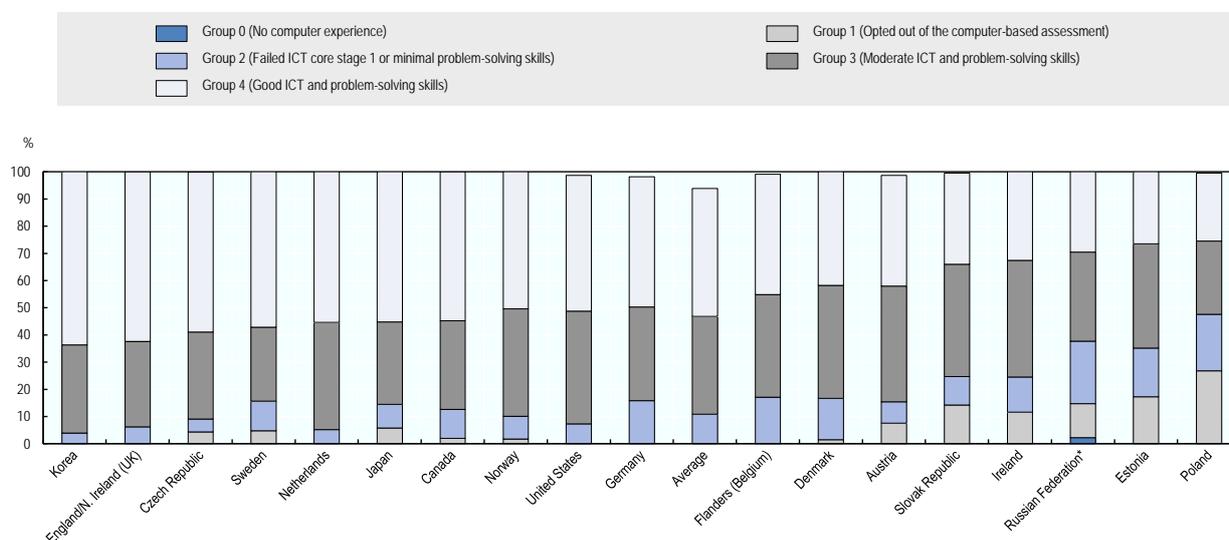
Note: *Teachers who teach both pre-primary and primary school, primary teachers and secondary teachers refer to teachers who were currently working as teachers at the moment of the survey. The bars may not add up to 100% because of the presence categories for which there are too few observations to provide reliable estimates. See also note on data for the Russian Federation in the Methodology section. Countries are ranked in descending order of the percentage of teachers with good problem-solving skills (Group 4).*
Source: OECD, Education at a Glance 2015, Table D5.4a. See Annex 3 for notes (www.oecd.org/edu/eag.htm)

Portugal could consider examining exemplary aspects of good schooling, such as specific features of good practices, emerging models of interdisciplinary subjects and different assessment practices.

The flexibility the PACF gives school has allowed teachers in the pilot project to explore and experiment with varied teaching and assessment practices. Different pedagogies and assessments may help different students at different learning stages. In general, studies show that more student-oriented approaches to teaching better engagement and career expectations, while more teacher-directed approaches are likely to support better academic performance. Portugal could also consider what kind of pedagogies best serve its students for different purposes. Techniques like memorisation becomes less useful as problems become more difficult, while control strategies are always useful but become less so as problems become difficult. Finally, elaboration strategies become more useful as problems become more difficult (see Figures 3.14 – 3.18).

Figure 3.14 Students' self-reported use of memorisation strategies
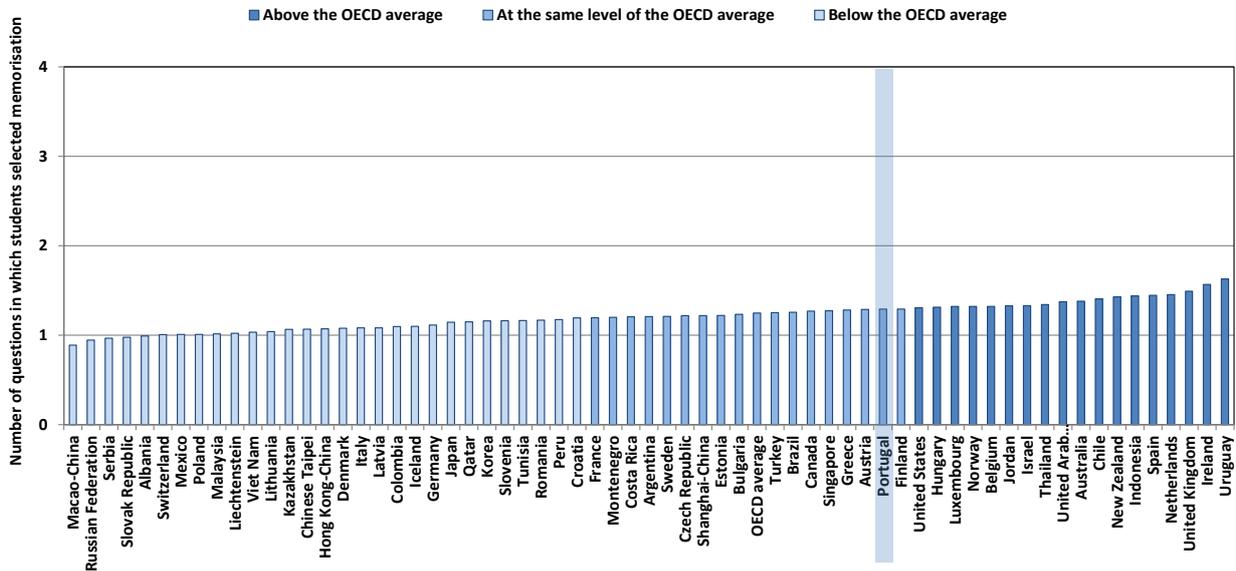
Source: PISA 2012 database

Figure 3.15 Students'self-reported use of elaboration strategies
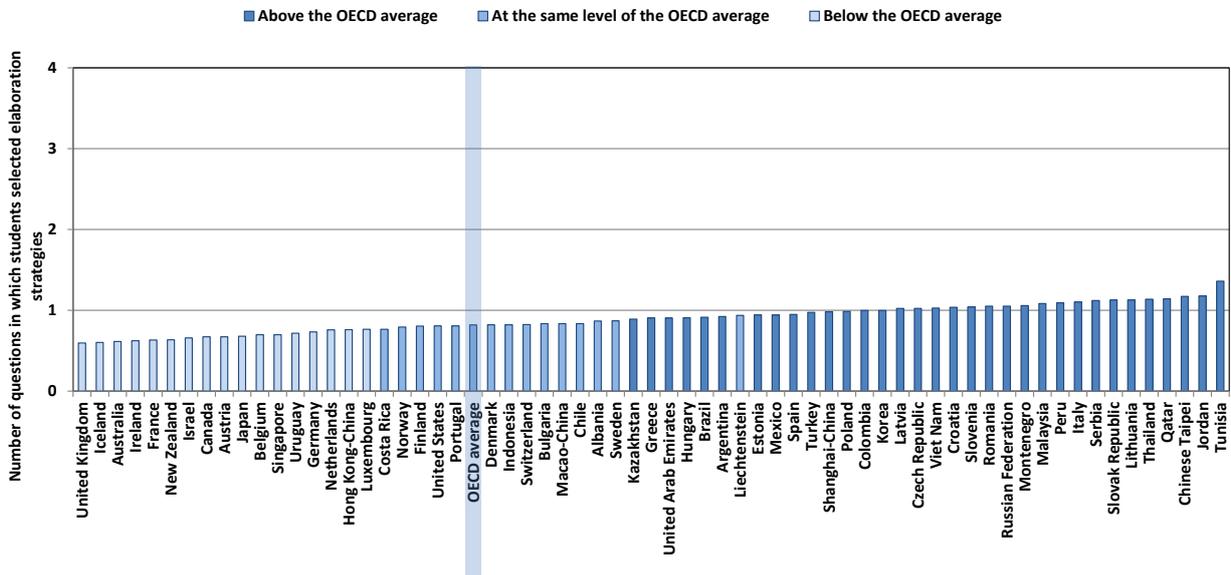
Source: OECD (2016) *Teaching Excellence through Professional Learning and Policy Reform*, PISA 2012 Database, http://dx.doi.org/10.1787/9789264252059-graph5-en.

Figure 3.16 Memorisation strategies and item difficulty

Using memorisation strategies is associated with an **increase** in the probability of successfully solving a mathematics problem

Memorisation is associated with less chance of success as problems become more difficult

R² = 0.81

Easy problem

Difficult problem

Using memorisation strategies is associated with a **decrease** in the probability of successfully solving a mathematics problem

Greater success

Less success

Difficulty of mathematics items on the PISA scale

Source: OECD (2016), *Ten Questions for Mathematics Teachers... and how PISA can help answer them*, PISA 2012 (database), http://dx.doi.org/10.1787/888933414854.

Figure 3.17 Elaboration strategies and item difficulty

Using elaboration strategies is associated with an **increase** in the probability of successfully solving a mathematics problem

Use of elaboration strategies is associated with a greater chance of success as problems become more difficult

R² = 0.82

Difficult problem

Easy problem

Using elaboration strategies is associated with a **decrease** in the probability of successfully solving a mathematics problem

Greater success

Less success

Difficulty of mathematics items in the PISA scale

Note: Elaboration strategies encourage students to make connections among tasks, link students' learning to their own prior knowledge and real-life situations, and find different ways of solving a problem.
Source: OECD (2016), *Ten Questions for Mathematics Teachers... and how PISA can help answer them*, PISA 2012 (database), http://dx.doi.org/10.1787/888933414903.

Figure 3.18 Control strategies and item difficulty
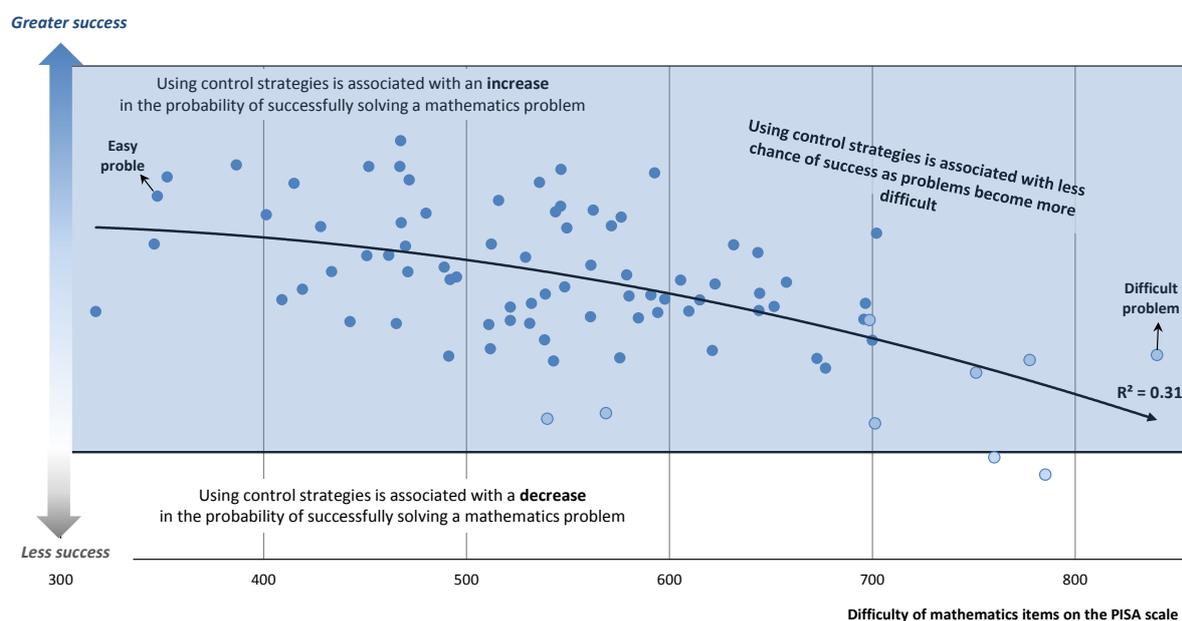
Note: By allowing students to set their own goals and track their own learning progress, control strategies help learners control their own learning. This approach includes activities such as organising material, creating a study plan and reflecting on the learning strategies used.
Source: OECD (2016), *Ten Questions for Mathematics Teachers... and how PISA can help answer them*, PISA 2012 (database) http://dx.doi.org/10.1787/888933414878.

It would be useful to document the teaching and assessment practices used by the teachers in the PACF and establish a knowledge base, especially of the exemplary cases. Furthermore, Portugal could analyse these cases and focus on specific features of good practices, emerging models of interdisciplinary subjects and different assessment practices to explore and consolidate the knowledge base on how to make the PAFC work for all schools.

Portugal could consider capitalising on existing channels like school clusters, networks of libraries and associations of professionals in different subject areas to share good practices.

Networks of teachers and schools are great vehicles for professionals to reflect on their practices and to engage in mutual exchange, inspiration and learning (Katz and Earl, 2010[51]). Collaboration and a sense of community are key to the development of robust networks. This is one reason why networks that are not formed by their own making, but by an external party, can be successful over time, but often are not. Building new networks of teachers, school leaders and schools for the purpose of the project will take time – and carries with it with the risk that many networks will not come to fruition. (Proger et al., 2017[52]). Building on networks that are already in place has proven to be a more successful strategy (Chapman and Muijs, 2014[53]). Therefore, Portugal should capitalise on existing networks, such as school clusters, networks of libraries and associations of professionals in different subject areas. In regions where many schools participate in the pilot, this approach is already at work. In these regions, authorities have built connections using pre-existing networks of schools. Established in the context of

teacher training and professional development, authorities have been able to use these networks to share curriculum innovation practices.

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4. Programme of OECD mission

Programme for OECD policy review mission, 15-19 January 2018

Monday, 15 January 2018 - Lisbon

9:30 a.m. - 1:00 p.m. **Conference: The Students' Profile Day**	Champalimaud Foundation, Lisbon
1:30 p.m. – 3:00 p.m. **Lunch with the Minister of Education and the Secretary of State for Education**	Darwin's Café, Champalimaud Foundation, Lisbon
3:30 p.m. - 6:00 p.m. **Panel discussion with experts and stakeholders, Directorate-General for Education Lisbon**	
Ariana Cosme	Professor at Porto University, member of the advisory council of the Project
David Sousa	Member of the National Board of Public Schools' Headmasters on behalf of Filinto Lima (President of the National Board of Public Schools' Headmasters)
José António Sousa	Headmaster of Schools' Cluster D. Dinis Lisbon on behalf of José Lemos (President of the National Schools' Board)
Jorge Buescu	Associate Professor at Lisbon University and President of the Mathematics Scientific Society
João Lopes	Associate Professor at Minho University, expert in Education and President of the Scientific Board for Teachers' Training
Ricardo Rodrigues	Professor at Lisbon University, member of the advisory council of the Project, expert in Education
Rui Trindade	Professor at Porto University, member of the advisory council of the Project, expert in Education
Luisa Ucha	SEE's advisor
Eulália Alexandre	Deputy Director for Education
Carla Mota	Staff, Directorate-General for Education
Joana Matias	Staff, Directorate-General for Education

Tuesday, 16 January 2018 - Moita

9:00 a.m. - 12:30 p.m. **Panel discussion with stakeholders, Escola Profissional da Moita (Vocational School), Moita**	
Alexandre Oliveira	Headmaster
Diana Santos	Projects' co-ordinator and member of the school board
Guilherme Rocha	Pedagogic Head teacher and member of the school board
Alexandra Teixeira	Headmaster advisor and trainer
Rita Monteiro	Headmaster of "Colégio Corte Real" (pedagogic company)
Pedro Pedroso	Tutor (Pilot project for Qualifications) and English teacher
Joana Louro	Psychologist and career guidance co-ordinator
José Carlos Fernandes	Hotel Director (vocationa school partnership) on behalf of Pestana Hotel Grou
Nelson Guerreiro	Parents' representative

Tuesday, 16 January 2018 - Monte Estoril

9:00 a.m. - 12:30 p.m.
Panel discussion with stakeholders, Schools' Cluster Ibn Mucana - EB/JI Raul Lino (preschool to upper secondary), Monte Estoril

Panel 1	
Teresa Lopes	Headmaster
Maria Dantas	General co-ordinator of the flexibility project
Célia Antunes	Project co-ordinator (lower primary)
Olga Carvalho	Project co-ordinator (upper primary)
Teresa Miranda	Project co-ordinator (lower secondary)
Panel 2	
Rui Duarte	Parents' representative
Maria Duarte	7th grade student
Mónica Oliveira	5th grade student
Margarida Ferreira	Class head teacher (participating in the project)
Ana Gil	Head of Education Department at Cascais Municipality (school partner)

Tuesday, 16 January 2018 - Azeitão

2:30 p.m. - 6:00 p.m.
Panel discussion with stakeholders, Schools' Cluster Azeitão (primary to lower secondary), Azeitão

Panel 1	
Maria Clara Félix	Headmaster
Anabela Aguieiras	Head of the School Board
Teresa Marques	Department co-ordinator, Cycle co-ordinator
Manuela Teodoro	Co-ordinator of class head teachers
Carla Martins	School libraries co-ordinator
Panel 2	
Cândida Tourais	Lower primary teacher
Adelaide Rodrigues	5th grade teacher and class head teacher
Luís Sebastião	Secretary-general of YMCA (School Partner)
Paulo Tomaz	Parents' representative
Simão Gonçalves	1st grade student
Matilde Chula	5th grade student
Carolina Setúbal	7th grade student
Bárbara Cortes	9th grade student

Tuesday, 16 January 2018 - Lisbon

2:30 p.m. - 6:00 p.m.
Panel discussion with stakeholders, Schools' Cluster Alvalade (primary to upper secondary), Lisbon

Panel 1	
Dulce Chagas	Headmaster
Teresa Nunes	Headmaster advisor and flexibility project co-ordinator
Maria Bárcia	10th grade co-ordinator
Fátima Gamito	7th grade coordinator
Manuela Raposo	5th grade coordinator
Luís Ruivo	1st grade coordinator
Panel 2	
Alexandra Carvalho	ICT teacher
Rodrigo Rodrigues	5th grade student
Alexandra Yatsenko	7th grade student
Henrique Farinha	10th grade student

Wednesday, 17 January 2018 – Alcanena

9:00 a.m. - 12:30 p.m.
Panel discussion with stakeholders, AE de Alcanena (primary to upper secondary), Alcanena

Panel 1	
Ana Cláudia Cohen	Headmaster and coordinator of the flexibility project
Gabriela Capaz	Project coordinator (5th grade)
Carlos Lopes	Project coordinator (7th grade)
José Fradique	Project coordinator/Head of Maths and Science department
Panel 2	
Guilherme Félix	Parents' representative
Gabriela Alexandre	Parents' representative (child is participating in the project)
Manuel Fernando	1st grade student
Laura Louro	5th grade student
Leonor Guimarães	7th grade student
Guilherme Félix	10th grade student
Daniel Café	English teacher (upper primary)
Fátima Caeeiro	Portuguese teacher (lower primary)

Wednesday, 17 January 2018 - Almada

9:00 a.m. - 12:30 p.m.
Panel discussion with stakeholders, ES Fernão Mendes Pinto (lower and upper secondary), Almada

Panel 1	
Ana Pina	Headmaster
Teresa Esteves	Deputy headmaster
Teresa Monteiro	Coordinator of class head teachers
Alexandre Palma	Teacher responsible for Special Needs
Lurdes Cruz	Projects and external relations coordinator
Panel 2	
Beatriz Mendes	Student
Pedro Pimenta	Student
Dulce Belo	Parents' representative
Isabel Rosendo	Teacher participating in the flexibility project
Isabelina Jorge	Partnership representative - Project Managing Institute (PMI)

Wednesday, 17 January 2018 - Vialonga

2:30 p.m. - 6:00 p.m.
Panel discussion with stakeholders, AE de Vialonga (preschool to lower secondary), Vialonga

Panel 1	
Nuno Santos	Headmaster
Joana Moreira	Deputy headmaster
Anabela Brito	Flexibility project co-ordinators
Helena Paixão	Flexibility project co-ordinators
Alexandra Frade	Coordinator of class head teachers
Maria Fonseca	Coordinator of class head teachers
Panel 2	
Érica Reis	5th grade student
Rodrigo Oliveira	5th grade student
Ana Ginga	7th grade student
Rafaela Cardoso	7th grade student
Ana Lídia Cardoso	Parents' representative
Margarida Penedo	Parents' representative
José António Gomes	Community representative / Local authority
Aurélia Valadares	Teacher

Wednesday, 17 January 2018 - Pinhal de Frades – Seixal

2:30 p.m. - 6:00 p.m.
Panel discussion with stakeholders, Colégio Atlântico (private school – preschool to upper secondary), Pinhal de Frades - Seixal

Panel 1	
António Pereira	Headmaster (upper primary and secondary)
Tina Pereira	Headmaster (nursery, preschool)
Vítor Pereira	Headmaster advisor and Maths teacher
Paula Afonso	Head teacher (lower primary and coordinator of flexibility project for lower primary)
Mafalda Andrade	Flexibility project coordinator
Filipe Romão	School projects' manager
Patrícia Costa	Head of Languages Department
Joaquim Costa	PBL teacher
Panel 2	
Tiago Sousa	1st grade student
Diogo Saramago	5th grade student
Joana Alves	7th grade student
Margarida Léon	9th grade student and representative of "Students' voice"
Daniel Rodrigues	9th grade student and representative of "Students' voice"
Pedro Almeida	Parents' representative
Tiago Coelho	Physical Education teacher, parent and representative of relations with the community
Ken Gielen	Teacher of citizenship and development, parent and representative of relations with the community

Thursday, 18 January 2018 - Sintra

9:00 a.m. - 12:30 p.m.
Panel discussion with stakeholders, AE Ferreira de Castro (preschool to lower secondary), Sintra

Panel 1	
António Castel-Branco	Headmaster
Anabela Carvalho	Coordinator of head class teachers
Carla Franco	General Board representative and 5th grade English teacher
Teresa Costa	Librarian and History teacher
Tiago Saraiva	Lower primary teacher and coordinator
Panel 2	
Paula Malato	Teacher (1st grade)
Sílvia Carlos	English teacher and head class teacher (7th grade)
João Pina	Parents' representative
Maria Gerezhuk	1st grade student
Guilherme Luís	5th grade student
Anastácia Kolesniskova	7th grade student
João Guerreiro	9th grade student

Thursday, 18 January 2018 - Lisbon

2:30 p.m. - 5:00 p.m.
Interviews with stakeholders, Directorate-General for Education, Lisbon

Panel 1	
Maria Emília Berderote	President of the National Board for Education
Rui Marques	National Coordinator of the Supporting platform for the refugees
Rodrigo Queiroz e Melo	President of the Portuguese Private Schools
Panel 2	
(National Co-ordination Team, Technical Support Team and Regional Clusters' Co-ordinators)	
National Co-ordination Team	
José Vítor Pedroso	Directorate-General for Education
Helder Pais	Directorate-General for Education
Ana Cláudia Valente	National Agency for Qualification and Vocational Training (ANQEP)
Sandra Lameira	National Agency for Qualification and Vocational Training (ANQEP)
Manuel Proença	Directorate-General for Schools(DGEstE)
Cristina Pessoa	Directorate-General for Schools(DGEstE)
Luís Capela	Inspectorate-General for Education and Science (IGEC)
Isabel Barata	Inspectorate-General for Education and Science (IGEC)
Co-ordinators of regional clusters	
Fernando Teixeira	North regional cluster, (DGEstE)
Ana Botinas	Centre regional cluster, (DGEstE)
Carla Lourenço	Lisbon and outskirts regional cluster, (DGE)
Carla Mota	Alentejo regional cluster (Directorate-General for Education)
Ana Isa Figueiredo	Algarve regional cluster (ANQEP)
Support Team	
Cristina Palma	Directorate-General for Education
Elsa Belo	Directorate-General for Education
Nádia Ferreira	Directorate-General for Education
António Dias	Directorate-General for Education
Ana Xavier	Directorate-General for Education

Thursday, 18 January 2018 – Lisbon

2:30 p.m. - 6:00 p.m.
Panel discussion with stakeholders, Schools' Cluster of Odivelas (Secondary school)
Non-project school

Panel	
Alexandra Batista	School's Deputy-Director
Encarnação Rosa	English teacher
Desire Turpin	Parents' Association representative
Safyia Ayoob	11th grade student
Roberto Vieira	11th grade student

Friday, 19 January 2018 – Lisbon

1:30 p.m. - 4:30 p.m.
Meeting, Directorate-General for Education
Lisbon

João Costa	Secretary of State for Education
Luísa Ucha	SEE's advisor
Florbela Valente	SEE's advisor
Antonieta Ferreira	SEE's advisor
Olinda Ramos	SEE's advisor
José Vítor Pedroso	Director-General for Education
Eulália Alexandre	Deputy Director for Education
Maria João Horta	Deputy Director for Education
Carla Mota	Staff, Directorate-General for Education
Joana Matias	Staff, Directorate-General for Education

Curriculum Flexibility and Autonomy in Portugal - an OECD Review

Using the curriculum design principles that were identified through the analytical work of the OECD Education 2030 project, the OECD reviewed the Project for Autonomy and Curriculum Flexibility (PACF) in Portugal by documenting the process and the status of its implementation in Portuguese schools. This review delivers an independent analysis which is organised in three chapters. Chapter 1 provides the national context with information on Portugal's overall strategy. Chapter 2 looks at aspects of curriculum de-sign. Lastly, Chapter 3 focuses on curriculum implementation. All three chapters identify strengths and challenges, while also offering policy insights. Prepared by a review team of international researchers and OECD experts, this report draws on international evidence and insights from a case study visit to the country.

Further information on the OECD Education 2030 project

To find out more about the project, please visit our website at: <u>oe.cd/education2030</u>

Write to us

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