OECD preliminary views on the “Project for Autonomy and Flexibility”
9 February 2018

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Today’s focus ---

Structure of analysis:

• Bigger picture
• Overall strategy
• Curriculum design
• Curriculum implementation
Bigger picture: Today’s Portugal
The economy is recovering

Source: Calculations based on OECD Economic Outlook: Statistics and Projections (database).
Competitiveness has improved

Export performance
Index 2000 = 100

Portugal | Germany | Italy | Spain

Export Performance measures the expansion of a country’s exports relative to the expansion of import demand from its trading partners. Improvements in export performance reflect rising market shares in the imports of trading partners.

Unemployment is falling

Unemployment rate, %

However…some vulnerabilities remain
Public debt is high

General government debt, Maastricht definition, per cent of GDP

Improving skills is key

Percentage of working age population having attained at least upper secondary education, 2015

1. Working age population: 25-64 years-olds.
Grade repetition is too commonly used

% of 15-year-old students who have repeated at least one year

Source: OECD (2012), *Equity and Quality in Education: Supporting Disadvantaged Students and Schools.*
What is “Tomorrow’s Portugal”? 
The percentage of foreign-born students are increasing: It is becoming more ethnically, culturally, and linguistically diverse.
Global competence (PISA)

- Knowledge: Examine local, global and intercultural issues
- Values: Understand and appreciate the perspectives and world views of others
- Skills: Take action for collective well-being and sustainable development
- Attributes: Engage in open, appropriate and effective interactions across cultures
Global competence (PISA)

Knowledge of **global issues** and **intercultural issues**

**Content** domains:

- **Culture and intercultural relations**
  (as students engage in learning about other cultures they recognise multiple, complex identities and avoid categorising people through single markers)
- **Socio-economic development and interdependence**
- **Environmental sustainability**
- **Global institutions, conflicts and human rights**
Global competence builds on specific cognitive and socio-emotional skills, including:

- Reasoning with information
- Communication in intercultural contexts
- Perspective-taking (the cognitive and social skills to understand how other people think and feel)
- Conflict resolution
- Adaptability
Global competence (PISA)

The mind-set that students adopt towards a person, a group, an institution, an issue, a behaviour or a symbol

**Openness** towards people from other cultural backgrounds

**Respect** for cultural differences

**Global-mindedness**
Values go beyond attitudes as they transcend specific objects or situations
People use them consciously and unconsciously as reference for judgements

- Human dignity
- Cultural diversity
Digitalisation and children

Democratizing

Particularizing

Homogenizing

Empowering

Concentrating

Disempowering
15-year-olds feeling bad if not connected to the Internet (PISA)

Figure III.13.6

Boys

Girls

%
Increase in time spent on line outside school on a typical school day

Percentage of High Internet Users (spending 2 to 6 hours on line per day), during weekdays

<table>
<thead>
<tr>
<th>Country</th>
<th>2012</th>
<th>2015</th>
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<tbody>
<tr>
<td>Chile</td>
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<td>56</td>
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<td>Poland</td>
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<td>Ireland</td>
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<td>Israel</td>
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<td>Macao (China)</td>
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<tr>
<td>Korea</td>
<td>20</td>
<td>20</td>
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</table>
What kind of competencies do today’s students need to create a new future of Portugal?
OECD Learning Framework 2030
Underlying concepts of the Portuguese Student Profile is in line with the OECD Learning Framework 2030.
Other initiatives to achieve a better future

- National Program for Promoting School Success
- National Education Strategy for Citizenship
- Essential Core curriculum
- Investment in Pre-school and Transition to Preschool
- In-service training
- New law for inclusion
- Changes in assessments (focusing on formative assessment and diversity of instruments)
- InCode 2030
- National Reading Plan and network of school libraries
OECD visit the pilot schools and non-pilot school
15-19 January 2018
What we saw...

- Overall Strategy -
STRENGTHS:

• Strategic thinking: there is a clear Theory of Action” for a change.
• “Student profile” with broadened outcomes as well as a strong sense of ownership
• Strategic approach to communications, e.g. ‘Student Profile Day’ on 15 January 2018
• The ‘openness for reflections’ of the Ministry in respect of the pilot.
The pilot project is in line with the national skills strategy: Portugal’s National Skills Strategy Diagnostic Phase 2014-2015

12 skills challenges for Portugal

Developing relevant skills
1. Improving quality and equity in education
2. Strengthening the responsiveness of VET to labour market demands
3. Targeting adult education and lifelong learning toward the low-skilled

Enabling conditions for an effective skills system
10. Financing a more equitable and efficient skills system
11. Adjusting decision-making power to meet local needs
12. Building capacity and partnerships for evidence-based skills policy

Activating the supply of skills
4. Reducing youth unemployment and NEETs
5. Increasing labour market re-entry for long-term unemployed
6. Reducing barriers to employment

Using skills effectively
7. Promoting entrepreneurship
8. Stimulating innovation and creating high-skilled jobs
9. Providing employers with incentives to engage in skills development, especially SMEs
The pilot project is in line with the inclusion strategy because inequities in the education system persist.

% of PISA score variance explained by students’ socio-economic background

- Portugal
- OECD average
- OECD minimum/maximum

Poverty is not destiny - Science performance by international deciles of the PISA index of economic, social and cultural status (ESCS)
CHALLENGES

• Conflict with associated assessments/ articulation between different types of assessment (internal/external)
• Misunderstanding that “greater flexibility in the curriculum” and “essential learning lead to “lowering learning standards”
• Conflict with dominant model of high centralization: inherent conflicts between the learning model implicit in the pilot project and the existing highly prescribed, centralized system
• Culture clash: students experience of participative, relevant, competency-based approaches in the flexible curriculum, in comparison with deeply dissatisfied with the ‘traditional’ offer in schools
• Further engagement of non-pilot schools into national initiatives e.g. student profile.
RECOMMENDATIONS

• Intensify collecting evidence of impact of the pilot
  – evidence of improved student engagement and outcomes;
  – evidence of improved teacher well-being;
  – evidence of good practice at all levels.
• Prioritise investment in capacity building to develop teacher and leadership skills.
• Launch a debate on entrance to university to align it with Student Profile
• Fulfil the promise to extend the project to all schools in 2018/19, making clear the voluntary nature.
• Prepared for expected/unexpected consequences
• Ensure continuity of this change with a long time frame to ensure real effects.
What we saw...

- Curriculum Design -
Curriculum Overload

Students often lack sufficient time to master key disciplinary concepts or, in the interests of a balanced life, to nurture friendships, to sleep and to exercise. It is time to shift the focus of our students from "more hours for learning" to "quality learning time".
Curriculum overload

What is also happening within curriculum space with traditional subjects......
Curriculum overload - The multi-faceted world of knowledge
Curriculum overload - The human world of knowledge
Curriculum overload - The small world of the curriculum
Curriculum overload - The small world of the curriculum
Curriculum overload - The small world of the curriculum
Curriculum overload - The small world of the curriculum
Curriculum overload - The small world of the curriculum
Curriculum overload - The small world of the curriculum

Degrading student learning to machine learning where technology will make humans obsolete
The ‘productivity’ puzzle

Making learning time productive so that students can build their academic, social and emotional skills in a balanced way
Learning time and science performance

Figure II.6.23

PISA science score vs. Total learning time in and outside of school

- Finland
- Germany
- Switzerland
- Japan
- Estonia
- New Zealand
- Macao (China)
- Hong Kong (China)
- Chinese Taipei
- Singapore
- Poland
- Russia
- United States
- Brazil
- Mexico
- Colombia
- Costa Rica
- Peru
- Qatar
- Thailand
- United Arab Emirates
- Tunisia
- Bulgaria
- Greece
- Chile
- Turkey
- Montenegro
- Dominican Republic
- Uruguay
- Iceland
- Netherlands
- Sweden
- Korea
- Italy
- Russia
- China
- United States

OECD average: $R^2 = 0.21$
Learning time and science performance

Figure II.6.23

Score points in science per hour of total learning time

Intended learning time at school (hours)
Study time after school (hours)
Score points in science per hour of total learning time
The process involved hearing headmaster, teacher societies, Unions, the National Council for Education, researchers, social partners, parent representatives, students; and thus, stakeholders understood the broader vision for the purposes of education as outlined by the pilot project and the student profile.

The pilot project (not compulsory) gives legal space for all schools to spontaneously and progressively adhere to the possibilities for curriculum design, especially, exemplar schools justification for experimental pedagogies, e.g. project-based learning and formative assessment.

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

The pilot project enabled teachers to experience and value diversity in curriculum for inclusion and equity.
The pilot project enabled students to experience and value the following elements of curriculum design to strengthen the design principle of “authenticity”.

- Opportunity to learn how to work and learn together with peers (sometimes across different grades)
- Opportunity to build positive relationships with teachers
- Opportunity to make choices that reflects their interests
- Opportunity to present their work that went beyond the teacher, into the community, for purposes other than grades, such as presenting at science fairs and using relevant knowledge and skills to solve school and community issues
- Relevance to future (university work, professional work, becoming a citizen)
- Opportunity to connect schools with professionals in the community
- Diversity of learning methods (e.g. active learning)
OECD Design Principles (work in progress)

Concept, content and topic design:

- Student agency
- Rigor
- Focus
- Coherence
- Alignment
- Transferability
- Choice

Process design:

- Teacher agency
- Authenticity
- Inter-relation
- Flexibility
- Engagement
CHALLENGES

- Dilemma between two worlds when designing curriculum: teaching for the national exam vs. active learning, formative assessment, etc.
- Technical complexities e.g. structure school time, arranging inter-disciplinary learning when designing curriculum flexibility
- Scaling and sustainability: e.g.
  - Prioritizing student learning and engagement
  - A culture of learning, trust, creativity, thoughtful risk taking,
  - Regular practice of faculty collaboration; students collaboration, reflection and action to improve practice; engaging and building partnerships with community and other stakeholders
- Managing differences between school practices.
Instruction time per subject in general lower secondary education (2017)

Correlations between the responsibilities for school governance\textsuperscript{1} and science performance

Source: OECD, PISA 2015 Database.

\textsuperscript{1} Responsibilities for school governance include: School principal, Teachers, School governing board, Local or regional education authority, National education authority.
RECOMMENDATIONS

• Continue to gather feedback from teachers on the pilot experiences, research on different models of curriculum design and share them with all schools to ensure equity

• Identify “lighthouse schools” so other schools can visit and see the successful pilot projects, student profile, and policy in action – but keep resistance to “standardise”.

• Continue to ensure that the pilot project spreads within schools, to ensure equity and equal access to all students

• Build clarity about competence to be attained by students with ICT to support better flexible curriculum design
What we saw...
- Curriculum Implementation -
Life satisfaction among 15-year-old students

Factors that predict high life satisfaction:
• Students who talk or meet with friends after school
• More physical activity
• Good teacher support
• Good parental support

Factors that predict poor life satisfaction:
• Anxiety with school work
• High internet use
I often worry that it will be difficult for me taking a test
I worry that I will get poor grades at school
Even if I am well prepared for a test I feel very anxious
I get very tense when I study
I get nervous when I don't know how to solve a task at school

Prevalence of schoolwork-related anxiety

<table>
<thead>
<tr>
<th>OECD average</th>
<th>Portugal</th>
</tr>
</thead>
<tbody>
<tr>
<td>I often worry that it will be difficult for me taking a test</td>
<td>60</td>
</tr>
<tr>
<td>I worry that I will get poor grades at school</td>
<td>65</td>
</tr>
<tr>
<td>Even if I am well prepared for a test I feel very anxious</td>
<td>55</td>
</tr>
<tr>
<td>I get very tense when I study</td>
<td>40</td>
</tr>
<tr>
<td>I get nervous when I don't know how to solve a task at school</td>
<td>50</td>
</tr>
</tbody>
</table>

Figure III.4.1(1)
Schoolwork-related anxiety among students in the top and bottom quarters of science performance

%  
Top quarter of science performance  Bottom quarter of science performance

Percentage of students who reported that they "agree" or "strongly agree" with the statement "Even if I am well prepared for a test, I feel very anxious".

* = no statistically significant difference
More teacher support and less anxiety

Even if I am well prepared for a test I feel very anxious
I get very tense when I study

The teacher adapts the lesson to my class’s needs and knowledge
The teacher provides individual help when a student has difficulties understanding a topic or task
Teachers graded me harder than they graded other students
Teachers gave me the impression that they think I am less smart than I really am
Sense of belonging relates to disciplinary climate

Students report higher sense of belonging in schools with a more positive disciplinary climate.
Students who perceive unfair behaviour report that: "Teachers disciplined me more harshly than other students", "Teachers ridiculed me in front of others" or "Teachers said something insulting to me in front of others" a few times a month or once a week or more.
Relative performance in collaborative problem solving, by socio-economic status

Source: PISA 2015 Results (Volume V): Collaborative Problem Solving. Figure V.4.9
STRENGTHS – school and teacher level

- The voluntary nature of the flexibility ensure incremental change for school leaders and teachers.
- The pilot helped to identify enthusiastic school leaders and teachers, as a source holder of good practices e.g. teachers working together
- The pilot empowered exemplar teachers by legitimising and endorsing good practices
- The pilot gathered emerging and existing evidence of teacher innovation, leadership, and creativity as well as teacher well-being.
CHALLENGES – School and teacher level

- The cultural shift for school leaders and teachers: from preparing for the national exam to more collaborative form of working, different role of teachers, valuing student agency and co-agency
- Networking and professional exchange: It is arranged rather ad hoc or informally. The degree and relevance is up to school leaders.
- Teaching workforce structure and status: older than the OECD average, status of teaching profession.
- Different degree of curriculum innovation within and across schools.
Elements not included in principals' formal education

Percentage of lower secondary principals whose formal education did not include:

- Instructional leadership training or course
- School administration or principal training programme or course
- Teacher training/education programme or course

Fig II.3

Mean mathematics performance, by school location, after accounting for socio-economic status

Elements not included in principals' formal education
Collaboration between teachers and principals in lower secondary education (TALIS 2013)

Percentage of principals who report having engaged "often" or "very often" in the following leadership activities during the 12 months prior to the survey

- Observe instruction in the classroom
- Take action to support co-operation among teachers to develop new teaching practices
- Take action to ensure that teachers take responsibility for improving their teaching skills

[Bar chart showing the percentage of principals for each country for each activity]
Mean mathematics performance, by school location, after accounting for socio-economic status

Fig II.3.3

Teaching practices by country

Percentage of lower secondary teachers who report using the following teaching practices "frequently" or "in all or nearly all lessons"

- Students work in small groups to come up with a joint solution to a problem or task
- Students work on projects that require at least one week to complete
- Students use ICT for projects or class work

Cumulative percentage of the three teaching practices is above 150%

Abu Dhabi (United Arab Emirates) Mexico Chile Norway Denmark Australia (Canada) United States Brazil Sweden Malaysia Average Netherlands Slovak Republic Portugal Romania Bulgaria Iceland Spain Poland Italy Latvia Singapore Czech Republic France Estonia Flanders (Belgium) Serbia Israel Korea Finland Croatia Japan
Percentage of lower secondary teachers who report never doing the following activities:

- Never observe other teachers' classes and provide feedback
- Never teach jointly as a team in the same class
- Never engage in joint activities across different classes and age groups (e.g. projects)
- Never take part in collaborative professional learning

Figure II.3. Percentage of teachers by country.
Mean mathematics performance, by school location, after accounting for socio-economic status.

Fig II.3.3

Teachers feedback: direct classroom observations

- Principals
- School Management
- Other teachers

Countries included in the graph:
- Bulgaria
- Poland
- United States
- Romania
- Alberta
- Croatia
- Czech Republic
- Abu Dhabi
- Flanders
- Serbia
- Slovak Republic
- Japan
- Israel
- Average
- Singapore
- Latvia
- Brazil
- Mexico
- Malaysia
- Sweden
- Estonia
- England (UK)
- Norway
- Finland
- Portugal
- Denmark
- Korea
- Chile
- Italy
- Netherlands
- France
- Spain
- Iceland
- Australia

Percentage of teachers: 0% - 100%
Countries where teachers believe their profession is valued show higher levels of student achievement.

Relationship between lower secondary teachers' views on the value of their profession in society and the country's share of top mathematics performers in PISA 2012.

- Australia
- Brazil
- Bulgaria
- Chile
- Croatia
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Iceland
- Israel
- Italy
- Japan
- Korea
- Latvia
- Lithuania
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Romania
- Serbia
- Singapore
- Slovak Republic
- Spain
- Sweden
- Switzerland
- United States

Graph shows a positive correlation between the percentage of teachers who agree that teaching is valued in society and the share of mathematics top performers in PISA 2012.

\[ R^2 = 0.24 \quad r = 0.49 \]
RECOMMENDATIONS – School and teacher level

• Ensure continuity from past, now, and future
• Prioritize school leadership training
• Use the pilot as an opportunity to cultivate/ change a culture of teacher feedback
• Create a new path to teaching profession (as part of the preparation of retirement of a large teaching workforce) e.g. pedagogical support qualifications e.g. ICT, project management
• Collect exemplars e.g. specific features of good practices, emerging models of “interdisciplinary subjects”, different assessment practices;
• Capitalise on the existing channels e.g. school clusters, network of libraries, association of professional subjects to share good practices