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Briefing note

SPAIN

OECD releases first results on student performance in 32 countries.

How well equipped are today's school-leavers to meet the challenges of the knowledge society? Can they penetrate complex texts and understand what they are reading? Can they use the mathematics and science they have learned in school to succeed in world increasingly relying on technological and scientific advances? First results from the OECD Programme for International Student Assessment (PISA) provide some answers. PISA, a major new activity of the 30 Member countries of the OECD, assesses the extent to which students approaching the end of compulsory education have the knowledge and skills needed for full participation in society.

In addition to covering student performance, PISA also reviews student attitudes and approaches to learning. The result is a series of internationally comparable indicators that give insights into the factors influencing the development of literacy skills at home and at school and how these factors interact. These indicators provide policy makers with a unique benchmarking tool on which to base future policy choices.

Spain's performance remains below the OECD average…

On average, 10% of 15-year-olds in the world's most developed countries have top-level literacy skills according to the new OECD study, being able to understand complex texts, evaluate information and build hypotheses, and draw on specialised knowledge. In Australia, Canada, Finland, New Zealand and the United Kingdom it is between 15% and 19% (see Table 2.1a). In **Spain** 4% of students were among the top performers.

…not because more students perform poorly but because fewer reach high performance levels.

At the other end of the scale, an average of 6%, but in some countries more than twice that proportion, fall below Level 1, the lowest level of proficiency. A further 12%, on average, only make it to Level 1 which requires students to just complete very basic reading tasks, such as locating a simple piece of information or identifying the main theme of a text. As a result, an average of 18% of 15-year-olds in OECD countries show serious gaps in the foundation of literacy skills needed for further learning. They may not be able to benefit effectively from available educational opportunities and fail to acquire the necessary knowledge and skills to do so effectively in their further school career and beyond. In **Spain**, 16% of students perform at or below Level 1 (see Table 2.1a). As in many other countries, the proportion of boys among this 16% is worryingly high: In **Spain**, 20% of boys only perform at or below Level 1 compared with only 12% of girls. Similarly, while boys do, on average, better than girls in mathematical literacy, much of this is attributable to there being more boys among the better performers while boys are equally represented with girls among the lowest performers (see Table 5.2a).

Spain is able to minimise female advantage in reading and in science.

Significant progress has been achieved to reduce gender gaps in educational attainment. Spain showed a pattern of performance consistent with the one found in PISA with females performing in average 24 points higher than males in reading literacy (OECD average of 32 points), males performing on average 18 points higher than females in mathematical literacy (OECD average of 11 points) with no gender gap found in scientific literacy.

Student performance today needs to be seen in the historical context of lower educational attainment in Spain's adult population…

It is possible to summarise student performance in the three subject areas in each country by a mean score and, based on this, to calculate the range of rank order positions each country would occupy in the international league. Because only a sample of the population was assessed, there is room for some error, so the mean scores of some countries are indistinguishable but it is possible to report a range of ranks

within which each country will fall. In reading literacy, **Spain** ranks between the 17th and 21st position among the 32 participating countries (see table in international press release). In mathematical literacy, **Spain** ranks between the 23th and 25th position and in scientific literacy between the 16th and 22nd position (see table in Executive Summary). All in all, Spanish students performed significantly below the OECD average in all three major domains assessed by PISA. In the different aspects of reading, Spanish students performed significantly below the OECD when interpreting texts and retrieving information is the focus, but when focusing on reflection and evaluation is the purpose, Spanish students performed around OECD average.

However, it is important to review the current levels of student performance in the context of traditionally lower levels of educational attainment in **Spain**. For example, only 35% of 25-64 year-olds in Spain have completed upper secondary education while it is 62% on average across OECD countries. Similarly at the university-level, Spain's figure of 15% compares with an OECD average of 14%. (see OECD's *Education at a Glance*, 2001 edition).

…and performance is more or less in line with current levels of investment in education.

Across OECD countries, higher average spending per student tends to be associated with higher average performance in the three areas of literacy, but does not guarantee it. **Spain's** performance is approximately what one would expect from expenditure per student (see Table 3.6). For example, cumulative expenditure per student in **Spain** from the beginning of primary education to age 15 is US$ 36,699 (below the OECD average of 43,520) while student performance in all three domains remains significantly below the average (see Table 3.6). However, Ireland and Korea achieve significantly better results with similar levels of spending than Spain's.

Spain succeeds in containing disparities in student performance…

Each country shows a wide range of student performance. One measure of inequality within countries is to put all students in order of their literacy scores and to look at how much difference there is between a student 25% from the bottom and a student 25% from the top. This shows the range of performance within the middle half of the population. How does the range in student performance in **Spain** compare to that of other countries? The range among the middle half of the population, in reading, is 117 points, compared to the OECD average of 136 (see Table 2.3a). In fact, Finland and **Spain** have greater equality in student results than any other European country.

…while keeping differences between schools to a minimal..

In most countries a considerable portion of the variation in student performance lies between schools (see Table 2.4). On average, across the 26 OECD countries included in this comparison, differences between schools account for 36% of the OECD average between-student variation. **Spain** shows low overall variation (around three-quarters of the OECD average) and low between-school variation (16 per cent of the OECD average variation in student performance), however, with mean score significantly below the OECD average (see Table 2.4).

High quality in learning outcomes is not incompatible with high equality.

Would improvements in Spain's average performance necessarily be accompanied by growing disparities? This is difficult to predict but it is noteworthy that some countries – most notably Finland, Japan and Korea – both reach a high mean reading literacy performance while maintaining a comparatively narrow gap between the highest and poorest performers. This shows that greater equality of student outcomes is not incompatible with high overall performance. By contrast Germany, one of the countries with the largest gap between the highest and lowest performing students, has a mean performance below the OECD average, with much of this variation accounted for by differences between schools. More generally, PISA suggests that both overall variation in student performance, and the relative proportion of that variation that is found between schools, tend to be greater in those countries with explicit differentiation at an early age between types of programme and school.

Home background influences educational success, but in varying degrees…

PISA shows that poor performance in school tends to be associated with, but does not automatically follow from, a disadvantaged home background. Canada, Finland, Iceland, Japan, Korea and Sweden all display above-average levels of student performance on the combined reading literacy scale and, at the same time, a below-average impact of economic, social and cultural status on student performance. Also **Spain** belongs to the countries with more equitable performance but, different from the countries mentioned above, does not perform well overall (see Table 6.1).

The students' home background is important but should not be looked at in isolation. The combined effect of the school's socio-economic intake is a powerful predictor of performance. According to students, better disciplinary climate was found in schools with a higher socio-economic intake, particularly in Italy, Japan, Spain, the United Kingdom and the United States.

There is no single factor that explains why some schools or countries have better results but there are school policies and practices that tend to be associated with success.

Successful performance is attributable to a constellation of factors, including school resources, school policy and practice, and classroom practice. In **Spain**, the school factors that relate more closely with student performance are the quality of the school infrastructure, students' use of school resources, disciplinary climate at school, the autonomy of the school, teacher-related factors of school climate, use of informal assessment, and the teachers' morale and commitment as perceived by the principal (see Table 8.5a in the international report). In general, the schools' mean economic, social and cultural status has a higher impact in performance than the students' economic, social and cultural status. Although also true for Spain, the effect of the schools' status is half of the impact of the OECD as a whole (16 and 32 points respectively).

School autonomy is another factor in the equation.

Does the distribution of decision-making responsibilities affect student performance? PISA suggests that in those countries in which principals report, on average, a higher degree of school autonomy with regard to choice of courses, the average performance on the combined reading literacy scale tends to be higher (the correlation between country averages in student performance and the respective proportion of schools involved in decisions concerning choice of courses is 0.51). The picture is similar, though less pronounced, for other aspects of school autonomy, which in explains 5% of the variation in student performance in Spain when compared to only 1% at the OECD level. Overall, PISA reveals a picture of limited involvement of schools in key decision areas in Spain.

The scope to reward teachers financially, once they have been hired, is generally limited. However while, on average across OECD countries, 26% of schools report at least some responsibility for determining teachers' salary increases (and in the Czech Republic, Greece, Sweden, the United Kingdom and the United States more than two-thirds) in **Spain** this is only 9% (see Table 7.11).

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