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Key messages from PISA 2012. An analysis and briefing from Education International

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Dear colleague,

Set out below is Education International's initial response to PISA 2012. It should be emphasised that this analysis is embargoed until 10:00 GMT tomorrow and any press releases and social media drawn from it should also be embargoed until that time. Also attached is the OECD's Overview of PISA 2012. This is subject to the same embargo.

The OECD's Programme for International Student Assessment (PISA) 2012 involves the largest number of countries yet. Focusing on achievements in numeracy it is also the most high stakes of all the PISAs to be published given that a record number of countries (65) have taken part. OECD believes the tests used for evaluating 15 year olds' ability to use and apply knowledge in numeracy, reading and science are valid and reliable. It also believes the tests are culturally neutral having applied an evaluation of them in relation to countries' own tests. One of PISA's features is its country rankings system to which, in PISA 2012, upper and lower positions have been allocated to countries to compensate for uncertainty created by the sampling method.

Key conclusions from PISA 2012 are set out below:

Shanghai, Hong Kong, Taiwan/Taipei, Korea, Macau China, Lichtenstein, Switzerland and the Netherlands are considered to be the top performers in Mathematics.

Between 2003-when the last PISA in Mathematics was conducted-and 2012, 25 countries were considered to have improved their performance in Mathematics with no change in performance in 25 countries and with a deterioration in performance in 14 countries. Italy, Poland and Portugal were considered to have increased their performance in the number of top performing students in Mathematics while at the same time reducing with low progress.

According to PISA, boys outperform girls in Mathematics in 37 countries and girls outperform boys in 5 countries.

Disadvantaged schools still have difficulties in attracting qualified teachers.

Where school systems segregate students, those students tend to be segregated by socio-economic status and by the frequency of their exposure to Mathematics.

While school autonomy is an important predictor of performance there has to be: a strong education system where everyone understands common expectations; teachers must be able to take part in the management of schools; and performance data must be made public.

There is little difference between the performance of schools in the private sector and the public sector when the social background of students has been taken into account.



High performing countries manage to place high performing teachers in socially disadvantaged schools.

Competition is not a predictor for school outcomes.

Parents want safe school environments, an active learning climate and for their school to have a good reputation.

Resources in poorer countries are a strong predictor of performance but in richer countries it is how the resources are spent which is the key predictor.

High performing countries pay teachers well and choose this as a policy priority over reducing class size.

Quality early years education is a strong predictor of performance.

Equitable allocation of resources and channelling additional resources to disadvantaged schools is a good predictor of performance.

There is no relationship between the quality of school buildings and performance.

PISA's key policy solutions are set out below:

Early detection mechanisms should be used, as in Finland, to detect low performance.

Low performance should be targeted.

Disadvantaged children should be targeted with additional resources or economic assistance.

In countries more universal policies should be applied to raise standards.

Marginalised students should be included in mainstream classrooms and schools

An initial commentary by Education International

Education International welcomes the policy debate raised by PISA on how to achieve quality education systems. As the PISA approach is based on equity of high outcomes for the largest possible number of students many of its conclusions provide supportive evidence for policy arguments for promoting high quality public education systems.

However there are two main problems with PISA. The first is its use of rankings and league tables of countries and administrations. They are often misleading and unfair. For example education systems which are improving often occupy the lower part of the tables. Also OECD itself acknowledges that because of sampling a single league table position is not accurate.

Secondly, performance is defined by solely three literacies; numeracy, reading and science. Important as they are, they cannot be a proxy for describing the quality of everything that is taught in schools. The arts, modern foreign languages and the humanities are just a few examples of learning not covered by PISA.

Most of the top positions in PISA 2012 in mathematics, reading and science are occupied by jurisdictions from Far East, which raises a question about how scientifically valid and fair it is to compare geographically small regions such as Shanghai, Macau and Hong Kong in China with whole large and diverse countries in other continents.

It is welcome that OECD for the first time is providing some analysis of relative performance differences at regional level. However, most media and public opinion is generally concerned with the standing of their country in the overall ranking list. Therefore, it is important to



note that as the PISA analysis grows more complex with every cycle, with regional performance factored in, there is less and less validity in the ranking of countries. In addition many of high performing systems which may have lost their relative standing actually have maintained or even improved the average results of their students.

In fact as PISA develops the trend analysis of each country's progression or regression over the time this becomes more interesting and important. PISA 2012 results are now compared with PISA 2003 results. While PISA cannot stand as an ultimate judgment about the quality of education systems, nevertheless careful attention should be paid to the changes both in the overall performance of students as well as to the shifting proportions in the top and lowest levels of performance in each separate country. Careful consideration of trends over the PISA cycles in every separate country, not comparing with other countries, may be the most relevant focus of attention.

Socio-economic status of students remains a strong predictor of performance. Across OECD a more socio-economically advantaged student scores 39 points higher in mathematics – an equivalent of nearly one year in schooling – than less advantaged students.

OECD PISA 2012 results show that a more equal distribution of resources among schools in countries, less stratification of students according their socio-economic status, more autonomy of schools in terms of the curriculum and pedagogy and most importantly, availability of qualified teachers are strong predictors of both positive learning environment and student learning outcomes.

The OECD finding that high teacher salaries are positively correlated with overall student performance is both important and welcome. Education International, however, disagrees with the OECD's conclusion that to achieve high salaries class sizes may need to increase. Smaller class sizes and well paid teachers make up two essential components of high quality education systems.

Education International agrees with OECD's strong conclusion that the quality of a school cannot exceed the quality of its teachers. Countries that have improved significantly their performance over the last ten years have established policies to improve the quality of their teaching staff by improving professional standards, increasing salaries to make the profession more attractive for new entrants into profession and by offering incentives for teachers to engage in in-service training programmes.

Yours sincerely,

Fred van Leeuwen
General Secretary