Policy messages in Volume 1

Pages 17-18 provides the Executive Summary. However this summary is elaborated in the Overview on pages 33-43 and Chapter 8, 'What PISA 2015 results imply for policy' (Pages 263-275).

Commentary

The last time a PISA was published with its main focus on Science was in 2006. PISA concludes that overall, with the exception of a few countries, there has been little overall change in students' performance at the education system level. Gender stereotyping continues to persist over which scientific routes are taken by young women or men.

Students in advantaged schools have access to better materials and resources whereas students in disadvantaged schools have less teaching time and are more likely to be required to repeat grades. The report emphasises that targeted additional resources will make a positive difference for students from disadvantaged backgrounds. Positive policies towards supporting the learning of young people from immigrant backgrounds can lead to major increases in students' learning although the majority of students from immigrant families have lower levels of achievement. Student tracking or selection, versus inclusion and mainstreaming, undermines the achievement of student, particularly disadvantaged students.

The policy proposals in Chapter 8 respond to these findings. Most of the proposals are unexceptional and ones which support EI policies, for example:

- Support widespread engagement with science while meeting the demand for scientific evidence;
- Improve both skills and attitudes to encourage lifelong engagement with science;
- Challenge stereotypes about science-related occupations to help boys and girls achieve their potential
- Target resources to schools with a high concentration of low-performing and disadvantaged students.
- Offer high quality early years education. This is shown to have a major positive impact for all students and particularly for students of immigrants
- Provide additional language support for students of immigrant background and offer special training for their teachers.

There is however one proposal which requires further analysis: 'Higher public expenditure on education has not always delivered better results'. EI believes that OECD has to be very careful not to promote a false dichotomy between ensuring sufficient resources for schools and quality education. Its claim that, 'while money relates to learning outcomes among low spending countries there is essentially no relationship between student spending per student and outcomes in PISA' is disingenuous and indeed could be used to send messages to governments inclined to cut education spending. It also contradicts OECD's own proposals for targeted resources for immigrant students, education in the early years and disadvantaged students and equity in resource allocation. Sufficient resources enable teachers to do their jobs. A wise use of resources comes both from engaging the teaching profession and their unions in evidence informed policy development and evaluating the effects of education reforms.

Volume 2. Policies and Practices in Successful Schools

Pages 16-18 provide the Executive Summary. The Overview on pages 33-46 contains a range of key findings. Pages 225-234 contain major policy findings.

The Executive Summary contains information about issues such as student attendance; the availability of additional opportunities in 'advantaged' schools, the nature of teaching in 'advantaged' schools and

teacher expectations of students. They are new findings and are likely to trigger debate. One key finding which is unequivocally set out is that; 'students in private schools score higher in science than students in public schools, but after accounting for the socio-economic profile of students and schools, students in public schools score **higher** (EI's emphasis) than students in private schools on average across (the PISA countries)'. Previous PISAs had said that student achievement in public schools was similar to that of private schools.

The Overview makes a number of conclusions; most of which EI would recognise as helpful. However there are conclusions which are problematic. For example, 'PISA results show that, in most education systems, the percentage of qualified science teachers is not related to students science scores but the way science is taught is related to students' performance in science, their expectations...and their beliefs'. Again this is disingenuous wording. Quality pedagogy is associated with qualified teachers. OECD's own policy conclusions emphasise the importance of qualified teachers to student achievement. Indeed it is in the area of positive conclusions and proposals on teacher policy that PISA 2015 is incoherent.

One disturbing finding in the Overview is that student behaviour seems to have deteriorated between 2012 and 2015, which is affecting 'learning scores'.

Interestingly findings about the benefits of school autonomy set out in previous PISAs appear to be questioned; 'there is no association (between) school autonomy, on average across OECD countries (and science performance)' although this is contradicted subsequently by statements that school autonomy does enhance science performance.

As with PISA 2006, which focused on Science, 'a positive association' is found between the autonomy of principals, the public posting of achievement data and science scores. The report contains a significant account of data analysis of teacher evaluation but there is little if any policy - unlike the robust conclusions of TALIS 2013 which rejected appraisal for administrative purposes.

The section on school governance seems backward looking and weak in terms of analysis and positive teacher policy.

Within the policy conclusions there are more positive proposals for teachers and schools. They include criticisms of school choice and the way it disadvantages young people from poor backgrounds. The OECD unequivocally favours additional support for struggling students rather than grade repetition and delays in selection into different education programmes. It also proposes access to quality early education for all children and 'above all' additional support for disadvantaged schools.

The OECD urges that the priority must be to, 'attract and retain qualified teachers, and ensure that they continue to learn throughout their careers' by ensuring that 'education and the teaching profession are greatly valued by society'; that teachers are adequately compensated; that teachers' careers are transparent and clearly structured and (that) recruitment...is fair and rigorous and...teachers are given many opportunities to learn'.

One key exception in the policy conclusions is those on class size. The OECD remains sceptical about the relationship between class size and student achievement. Yet within page 202 there is a finding that; 'In schools with smaller classes, students report that teachers can dedicate greater attention to individual students' needs and knowledge, provide individual help to struggling students, and change the structure of the lesson if students find it difficult to follow'.

In summary

On first reading PISA 2015 contains a range of strong and positive proposals on equity, tackling disadvantage and on the promotion of science teaching, yet it fails to adopt a coherent narrative on positive teacher policy unlike previous PISAs. However EI had only a short period of time to conduct a

preliminary analysis of the two PISA 2015 reports and there will be much more to interrogate. EI's webinar on PISA 2015 on 14 December provides affiliates the opportunity to discuss in greater depth the latest PISA.