Chapter 5

BUILDING AN EQUITABLE, EXCELLENT AND INCLUSIVE EDUCATION SYSTEM

Excellence and equity in student performance are less related to a country's income or expenditure on education than to how those educational resources are allocated, and to the policies, practices and learning environments that determine the conditions in which students work. This chapter identifies some of the steps policy makers can take to build school systems that are both equitable and excellent: attract, nurture and retain qualified teachers; allocate resources equitably; make pre-primary education accessible to all; and avoid socio-economic segregation within school systems.
The impact of the recent economic crisis on education budgets has only just begun to be observed; but it is evident that, in the context of the crisis, countries need to structure and manage school systems efficiently to maximise the impact of limited resources on excellence, equity and inclusiveness. However, as the data from PISA show, when it comes to education, money isn’t everything. Excellence and equity in student performance are less related to a country’s/economy’s income or expenditure on education per student than to how those educational resources are allocated, and to the policies, practices and learning environments that determine the conditions in which students can work to achieve their full potential. In fact, education policies and practices can only be considered effective if they result in learning in the classroom.

PISA shows that disciplinary climate tends to be not conducive to learning in schools whose students come from diverse socio-economic backgrounds, schools with a large student population, schools located in cities, and public schools. These schools need targeted policies/interventions. Standardised assessments and information systems, already in place in most countries, can be used to identify individual schools that need special assistance by incorporating some questions about and/or measures of the learning environment. Colombia, Mexico and Poland, for example, have improved the information infrastructure of their education systems so that they can better identify and support struggling schools.

Comparisons of learning environments between 2003 and 2012 suggest that they have improved overall; but there are still schools with poor learning environments in all countries and economies. What kinds of interventions are most effective for these schools? PISA results show that, when comparing two schools, public or private, of the same size, in the same kind of location, and whose students share similar socio-economic status, disciplinary climate tends to be better in the school that does not suffer from a shortage of qualified teachers. Teacher shortage and disciplinary climate are inter-related: most teachers tend to avoid schools with more disciplinary problems, while a shortage of qualified teachers adversely affects disciplinary climate. What is needed in these schools is an intervention to break this vicious cycle.

**ATTRACT, NURTURE AND RETAIN QUALIFIED TEACHERS**

School systems must attract, nurture and retain quality teachers by setting relevant criteria for entering the teaching profession and providing sufficient and appropriate pre-service and in-service training. Countries that have improved their performance in PISA, like Brazil, Colombia, Estonia, Israel, Japan and Poland, for example, have established policies to improve the quality of their teaching staff by either adding to the requirements to earn a teaching license, providing incentives for high-achieving students to enter the profession, increasing salaries to make the profession more attractive and to retain more teachers, or by offering incentives for teachers to engage in in-service teacher-training programmes. While paying teachers well is only part of the equation, higher salaries can help school systems to attract the best candidates to the teaching profession. PISA results show that high-performing countries tend to pay teachers higher salaries relative to their per capita GDP.

School systems also need to ensure equity in the allocation of teachers across schools. To this end, some systems need to re-examine teacher hiring/allocation systems to ensure that difficult schools get enough qualified teachers, develop incentive systems to attract qualified teachers to these difficult schools, and ensure that teachers in difficult schools participate in in-service training (results show that these teachers are less likely to participate in professional training). If these difficult schools can attract and retain enough qualified teachers, that will go a long way towards promoting a positive school culture.

**ALLOCATE RESOURCES EQUITABLY**

The results from PISA also show that schools with more socio-economically disadvantaged students tend to have lower-quality resources than schools with more advantaged students. Fairness in resource allocation is not only important for equity in education, it is also related to the performance of the education system as a whole. PISA results show that school systems with high student performance in mathematics tend to allocate resources more equitably between advantaged and disadvantaged schools. In these systems, there are smaller differences between higher-performing and lower-performing schools in principals’ reports on teacher shortage, the adequacy of educational resources and physical infrastructure, and smaller differences in average mathematics learning time between schools with more advantaged and those with more disadvantaged students.

For example, Estonia, Finland, Germany, Korea and Slovenia all show higher-than-OECD-average performance in mathematics. In these countries, principals in disadvantaged schools tended to report that their schools had adequate educational resources as much as, if not more than, principals in advantaged schools reported.
In systems where the overall level of educational resources is below the OECD average, there tends to be a greater gap in educational resources between advantaged and disadvantaged schools. Scarce resources tend to be more concentrated in advantaged schools, and disadvantaged schools tend to suffer from inadequacy or shortage of resources. In these countries and economies, policies need to increase the overall level of resources while also ensuring that resources are allocated equitably between advantaged and disadvantaged schools.

Among systems where the overall level of educational resources is above the OECD average, equity in resource allocation is not necessarily linked to the overall level of resources. Even if two countries have similar levels of educational resources overall, one may allocate those resources more equitably than the other. Thus, in countries and economies that have already attained a certain level of resources, policy should focus on allocating those resources equitably, rather than just on increasing the overall level of resources.

**MAKE PRE-PRIMARY EDUCATION ACCESSIBLE TO ALL**

Policies should also target individual students and parents, either through institutions or families. For example, PISA shows that, in nearly all countries and economies, students who had attended pre-primary school tend to perform better at the age of 15 than students who had not attended, even after accounting for students’ socio-economic status.

PISA also allows for comparisons of how students’ reports on having attended pre-primary school changed between 2003 and 2012. Fifteen-year-old students in 2012 were more likely than 15-year-olds in 2003 to have attended at least one year of pre-primary education. But the rate of increase in pre-primary enrolment is higher among advantaged students than disadvantaged students, which means that the socio-economic gap between students who had attended pre-primary education and those who had not has widened over time.

Policies targeting disadvantaged students and families can highlight the importance of pre-primary education. It is important to provide information and guidance for parents to increase enrolment in pre-primary education for all children, regardless of their socio-economic status. Governments should ensure that quality pre-primary education is available locally, especially when disadvantaged families are concentrated in certain geographic areas. Governments should also develop fair and efficient mechanisms for subsidising pre-primary education to ease the financial burden on families.

In line with these results, Brazil, Germany, Israel, Mexico and Turkey have already implemented targeted policies to improve the performance of low-achieving schools or students, or have distributed more resources to those regions and schools that need them most. Considering the importance of equity in resource allocation, OECD has launched a new project on this issue (the OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools), and more detailed information on how some high-performing countries allocate resources will be available as of 2015.

**ENCOURAGE AUTONOMY IN THE CONTEXT OF ACCOUNTABILITY**

In recent years, many school systems have moved away from a model of purely administrative control towards one where schools become more autonomous organisations, accountable to their users and to the public for outcomes. PISA results show that in higher-performing systems, schools have more autonomy so that they have the incentives and the capacity to improve. In these systems, schools have more responsibility for establishing student disciplinary policies, student assessment policies, approving students for admission to the school, and choosing which textbooks are used and which courses are offered.

A stand-alone policy to grant schools greater autonomy, however, will not, in itself, result in better outcomes. PISA shows that school autonomy is most effective in the context of accountability arrangements and a collaborative culture. In other words, schools with more autonomy tend to perform better than schools with less autonomy when the system as a whole uses such accountability arrangements as setting clear objectives of what students are expected to learn and sharing information about outcomes, and/or when principals and teachers work together to manage schools. Some countries, like Colombia, Korea and Poland have given schools and local authorities more autonomy and have recognised that autonomy works only in the context of collaboration and accountability. Others, like Portugal, have reshaped the organisation of schools to facilitate collaboration and economies of scale among individual schools by creating school clusters. These countries’ approaches to autonomy suggest that it is the combination of various conditions, rather than a single policy in isolation, that is related to better outcomes.

**AVOID SEGREGATION AND STRATIFICATION**

In contrast, some features, most notably the prevalence of private schools and competition for students, have no discernible relationship with student performance and the share of top performers. Socio-economically advantaged
students, who tend to be high achievers, are also more likely to attend private schools and schools that compete for enrolment. Thus, after socio-economic status is accounted for, private schools do not perform better than public schools; and schools that compete with other schools for students do not perform better than schools that don’t compete. Thus, the cross-country analysis suggests that systems, as a whole, do not benefit from a greater prevalence of private schools or school competition.

In fact, school competition is a multi-faceted concept. Principals’ perceptions of school competition are not necessarily the same as that of the parents of students in their schools. More worryingly, in the countries that distributed the PISA parent questionnaire, disadvantaged parents are significantly more likely than advantaged parents to report that “low expenses” and “financial aid” are very important factors to consider when choosing a school. While parents from all backgrounds cite academic achievement as an important consideration when choosing a school for their children, advantaged parents are, on average, nine percentage points more likely than disadvantaged parents to cite this criterion as “very important”. These differences suggest that disadvantaged parents may believe that their choice of schools for their child is limited, due to the cost of some schools. If children from disadvantaged backgrounds cannot attend high-performing schools because of financial constraints, then school systems that offer parents more choice of schools for their children will necessarily be less effective in improving the performance of all students.

PISA 2012 results, like those of earlier PISA assessments, show that, in general, school systems that cater to different students’ needs by separating students into different institutions, grade levels and classes, known as stratification, have not succeeded in producing superior overall results, and in some cases they have lower-than-average and more inequitable performance. For example, cross-country analysis shows that in the systems where more students repeat a grade, the impact of students’ socio-economic status on their performance is stronger. Furthermore, trends analysis shows that stratification is negatively related to systems’ overall performance. Students in schools where no ability grouping is practiced scored eight points higher in mathematics in 2012 compared to their counterparts in 2003, while students in schools where ability grouping is practiced in some or all classes had lower scores in PISA 2012 than their counterparts in PISA 2003.

In highly stratified systems, there may be more incentives for schools to select the best students, and fewer incentives to work with difficult students if there is an option of transferring those students to other schools. In contrast, in comprehensive systems, schools must find ways of working with students from across the performance spectrum. These different incentive systems may help explain the greater level of equity achieved in systems that use stratification less. School systems that continue to differentiate among students in these ways need to create appropriate incentives to ensure that some students are not “discarded” by the system.

Reflecting these results, for example, Poland reformed its education system by delaying the age of selection into different programmes; and schools in Germany are also moving towards reducing the levels of stratification across education programmes.

PISA 2012 results also show that students in more comprehensive systems reported that making an effort in mathematics and learning mathematics is important for their future career. This does not necessarily mean that if stratification policies were changed, students in stratified systems would have better instrumental motivation to learn, since PISA does not measure cause and effect. However, policy makers in highly stratified systems need to consider not only the equity aspect of education outcomes but also non-cognitive outcomes, such as students’ attitudes towards learning.

**USE ASSESSMENTS AND EVALUATIONS TO IDENTIFY STRUGGLING STUDENTS AND SCHOOLS**

Compared with PISA 2003, more schools are using student assessments to compare the school’s performance to that of other schools or use student assessment data to monitor teacher practice. The scope of evaluations and assessments is not only limited to student assessments; most schools use various forms of evaluations, such as self-evaluations, external school evaluation and teacher appraisals as well. PISA shows that, on average across OECD countries, 92% of students are in schools that use at least a self-evaluation or external evaluation to assure and improve school quality, and 60% of students are in schools that seek written feedback from students regarding lessons, teachers or resources in addition to using self-evaluations and/or external evaluations of the school. PISA results also show that in systems that attain a high level of equity, more schools tend to seek written feedback from students regarding lessons, teachers or resources.

The OECD review on evaluation and assessment in education, *Synergies for Better Learning: An International Perspectives on Evaluation and Assessment* (OECD, 2013), emphasises the importance of engaging all staff and students in school self-evaluations and using student feedback to teachers for formative purposes. Some countries engage students in school
evaluations by establishing student councils or conducting student surveys in schools. In order to use the feedback from students effectively, school staff may need assistance in interpreting the evaluation information and translating it into action. Trust among school staff and students, and strong commitment from the school community, is key to making this practice work.

What these findings tell policy makers is that while there are several features that are shared among high-performing systems, among systems with greater equity, or among high-performing schools, no one policy or practice spells success. What is important is a cohesive and systematic approach, as education policies and practices, resources invested in education, the learning environment, socio-economic status, demographics and education outcomes are all interrelated. In addition, school systems change over time, intentionally or unintentionally, in response to external changes. Thus, continuous and strategic efforts to improve school systems are required. These efforts need to anticipate challenges (e.g. demographic changes) and provide guidance for coherent policies and programmes to be implemented at different levels of education. And they need to be flexible enough to allow for revisions and to be adapted to local contexts.
Reference


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.