



## Chapter 1

# RECRUITMENT AND INITIAL PREPARATION OF TEACHERS

Education systems face a demanding challenge in recruiting high-quality graduates as teachers, particularly in shortage areas. At the Summit, Brazil and China reported how they are wrestling with getting good teachers into their vast rural areas; Japan and several other countries reported on planning for large-scale imminent retirements; the United States expressed concerns about high attrition rates, with teachers simply leaving the profession; the Netherlands reported on how decisions on class-size reductions had increased the demand for teachers and Belgium noted that the teaching force does not reflect the increasing diversity of the population.<sup>10</sup>

Various countries have employed a range of strategies to help them address these challenges. Competitive compensation, career prospects, career diversity, and giving teachers responsibility as professionals are important aspects of this. Active recruitment campaigns can emphasize the fulfilling nature of teaching as a profession, and seek to draw in groups who might not otherwise have considered teaching. Where teaching is seen as an attractive profession, its status can further be enhanced through selective recruitment that makes teachers feel that they will be going into a career sought after by high-fliers. All this also requires initial education to prepare new teachers to play an active role in the design and running of education, rather than just following standardized practices.



Getting it right  
from the start.

Education systems can recruit  
high-quality teachers not just  
through adequate pay but also  
by providing an environment  
in which teachers work  
as professionals...

...and in doing so, must look  
carefully at the state of  
labor supply and demand, and  
consider strategies both to  
bring people into teaching  
generally and to address  
specific shortages.

Various countries have  
shown that policy can have  
a significant impact on the  
attractiveness of teaching.

### MAKING TEACHING AN ATTRACTIVE CAREER CHOICE

One of the main conclusions of the Summit has been that high-performing systems build their human resource systems by putting the energy up front in attracting, training and supporting good teachers rather than on the back end of reducing attrition and firing weak teachers.<sup>11</sup>

The OECD Programme for International Student Assessment (PISA) shows that the best-performing education systems provide most of their students with the kind and quality of education that average performers provide only for a small elite. That requires them to deliver excellent teaching for all students. In order to achieve this, national policy reviews show that they often aim to recruit their teachers from the same pool from which all their top professionals are recruited. But people who see themselves as candidates for the professions, and the working conditions enjoyed by professionals, may not be attracted to schools organized in prescriptive work environments that use bureaucratic management to direct their work.

The Summit participants reported how they have transformed the work organization in their schools by complementing administrative forms of management with professional norms that provide the status, pay, professional autonomy, and high-quality professional education and responsibility that go with professional work. They also discussed effective systems of social dialogue. Finally, they discussed how to supply attractive forms of employment that balance flexibility with job security and grant sufficient authority for schools to manage and deploy their human resources.

Even where the recruitment of the most highly qualified graduates remains a challenge, policy makers tend to acknowledge that the quality of teaching is strongly affected by the pool of talent from which teachers are recruited. The pool from which an industry selects its professionals is influenced by some combination of the occupational status, work environment, sense of personal contribution and the financial rewards associated with a given profession. Teacher policy needs to examine these aspects closely, particularly in light of teacher shortages that many advanced economies already face and that will grow in the near future as large numbers of teachers reach retirement age.<sup>12</sup> Even where general teacher supply and demand are in balance, many countries face shortages of specialist teachers and shortages in schools serving disadvantaged or isolated communities.

Policy responses are needed at two levels. The first concerns the nature of the teaching profession itself and teachers' work environment. These policies seek to improve the profession's general status and competitive position in the job market. The second involves more targeted responses to particular types of teacher shortages. It recognizes that there is not a single labor market for teachers, but a set of them, distinguished by school type and characteristics such as subject specialization.<sup>13</sup> Surveys of what teachers themselves value about their work also provide important insights into what needs to be emphasized in recruitment: the social relevance of teaching; working with young people; creativity; autonomy; and working with colleagues.

It is important to note that the status of the teaching profession is not just a static attribute of culture but has, in some countries, changed significantly. As shown in the boxes on Singapore (Box 1.1), England (Box 1.2) and Finland (Box 1.3), vigorous intervention that directly addresses the attractiveness of teaching compared to other graduate professions can make a big difference. Interesting approaches towards recruitment pursued by some countries include:

- Promotional programs targeted at groups who are “non-traditional” entrants to teaching.
- Broadening selection criteria for new teachers, with the aim of identifying applicants with the greatest potential, including interviews, preparing lesson plans, and demonstrating teaching skills.



- Changing the role of seniority in determining teacher assignments, to avoid situations where new teachers are assigned to the more difficult and unpopular schools, further disadvantaging students there as well as potentially damaging teachers' career development.
- For desirable teaching jobs, sometimes qualities that are harder to measure, such as enthusiasm, commitment and sensitivity to students' needs, are given greater weight in applications, where these are seen to be more directly related to the quality of teaching and learning than the traditional emphases on qualifications and years of experience.

**Box 1.1. Throughout Singapore, teaching talent is identified and nurtured rather than being left to chance**

***Singapore is notable for its comprehensive approach to identifying and nurturing teaching talent.*** Singapore carefully selects young people from the top one-third of the secondary school graduating class whom the government is especially interested in attracting to teaching and offers them a monthly stipend, while still in school, that is competitive with the monthly salary for fresh graduates in other fields. In exchange, these teachers must commit to teaching for at least three years. Strong academic ability is viewed as essential, as is commitment to the profession and to serving diverse student bodies. Interest in teaching is seeded early through teaching internships for high school students; there is also a system for mid-career entry, which is seen as a way of bringing real-world experience to students. Singapore keeps a close watch on occupational starting salaries and adjusts the salaries for new teachers accordingly. In effect, the country wants its most qualified candidates to regard teaching as just as attractively compensated as other professions.

After three years of teaching, teachers are assessed annually to see which of three career paths would best suit them – master teacher, specialist in curriculum or research or school leader. Each path has salary increments. Teachers with potential as school leaders are moved to middle management teams and receive training to prepare them for their new roles. Middle managers' performance is assessed for their potential to become vice principals, and later, principals. Each stage involves a range of experience and training to prepare candidates for school leadership and innovation. In Singapore, young teachers are continuously assessed for their leadership potential and given opportunities to demonstrate and learn, for example, by serving on committees, then being promoted to head of department at a relatively young age. Some are transferred to the ministry for education for a period. Potential principals are selected for interviews and go through leadership situational exercises.

Last but not least, research shows that people who have close contact with schools – such as parents who assist in classrooms, or employers who have students in workplace learning programs – often have much more positive attitudes towards teachers than people with little direct contact. This suggests that building stronger links between the schools and the community can help to enhance the status of teaching. Teachers and school leaders can play a key role in strengthening connections with families and communities as part of effective learning. This can involve eliciting greater support from stakeholders with traditional expectations about teaching by communicating current knowledge about what makes learning effective. Personalized relationships with learners and their families can be part of this process, as can after-school and extra-curricular programs, support for families as learning environments, and making the links more explicit between formal learning and life after schooling.

Employers increasingly recognize the need to provide workers with a good work-life balance and opportunities to combine work with family responsibilities and other activities. Some countries allow part-time teaching or opportunities throughout the career to gain experience outside schools through sabbatical leave, extended leave without pay, and job exchanges with industry. Although all such initiatives involve costs, those costs need to be set against the benefits of lower staff turnover, improved morale, and introducing new knowledge and skills into schools.

Attractive conditions can improve morale, lower turnover and widen the teacher pool.



### Box 1.2. Reversing teacher shortages in the United Kingdom

*The education authorities tackled a severe teacher shortage in England by addressing pay and work environment and launching a powerful recruitment campaign.*

When the Blair Administration took office in 1997, they had less than 28 000 teacher entrants for a system that needed 35 000. Four years later, they had raised the teacher entrants number up to 40 000 and it kept rising, and this was during an economic boom when everyone else was recruiting for the best and brightest. To some extent this had to do with raising compensation significantly, as well as with important changes in teachers' work environment; but a sophisticated and powerful recruiting program played a very important part in the turnaround.

The recruitment campaign, was launched with strong political and financial backing, by the Training and Development Agency (TDA) in 2000. An extra GBP 150 million was allocated to: (1) Employing leading international advertising and recruitment agencies to undertake extensive market research on the motivations and barriers to becoming a teacher, and to develop award winning marketing strategies. (2) Offering a new GBP 6 000 training bursary to all trainees, as a one-off, tax-free payment to support them through their training. A "golden hello" was also introduced, of up to GBP 4 000. This amount was to be paid on employment, depending on which subject trainees were teaching. Teachers of subjects which were especially short of teachers, such as mathematics and physics, received the full amount.

By focusing on the idea of teaching "making a difference", the new campaign aimed to improve the status of teaching as a profession. It also emphasized the flexibility and diversity of the skills teachers acquire, the variety of routes into teaching and the possibility of doing it as a "first career" before moving onto other things. The advertising approach was very direct, encouraging people to call a national information line, which also allowed the TDA to collect data on people who were considering teaching and to target those with skills in shortage subjects such as mathematics and physics students.

One of the TDA's central aims was to understand its "customers" better. It divided the student population into three broad categories: (1) those planning on teaching; (2) those considering teaching; and (3) those not considering teaching. Originally, the majority of the TDA's efforts went into recruiting teachers from the "might teach" category (2). They wanted to encourage people who were seriously considering teaching as an option, but were put off by various barriers – such as the financial burden of the training. In order to refine its campaign further, the TDA then undertook more in-depth market research on potential teaching recruits. It divided the market into three main categories of potential recruits: (a) Undergraduates and recent graduates – students looking for their first job on leaving university. (b) Career finders – young people aged around 25-30 who had left university and not settled into a graduate career, but who were now looking for a career. (c) Career changers – people who had embarked on a career, but were looking for a career which would bring them more job satisfaction. During the last decade the proportion of career finders and changers amongst teacher training recruits has grown – in 2009 about 50% of teacher training recruits were over 25. This was reflected in new advertising slogans – such as "Use your head: teach" – to appeal to people not making full use of their graduate skills in their current jobs. The latest campaign, "Turn your talent to teaching", is designed to appeal to all three categories of potential recruits.

After extensive profiling of potential recruits, the advertising agency also developed the profile of "self-interested idealists" to define potential teachers, and to shape the marketing campaigns. This acknowledged that potential teachers were motivated by making a difference and putting something back, but that they also wanted to enter a profession which would give them financial and personal satisfaction rewards.

To broaden the potential pool of teaching applicants, the TDA also developed a wide range of routes to becoming a qualified teacher. From 2006, there were as many as 32 ways of acquiring Qualified Teacher Status.

Within three months of launching the recruitment campaign, the number of people calling the national teaching recruitment helpline tripled. Unfilled teacher vacancies soon halved to less than one percent in all subjects – and the number of new recruits teaching math also doubled. Recruitment to science subjects reached its target a year earlier, in 2002-03. "Science" includes biology, popular among new teachers, as well as the priority shortage subjects of physics and chemistry.



The essence of professional work can be seen as the acknowledgement that it is the professional, and not the supervisor, who has the knowledge needed to make the important decisions as to what services are needed and how they are to be supplied. Organizations dominated by professionals are those in which there are fewer layers of management, workers are consulted on all matters of consequence, and workers have considerable discretion with respect to diagnosing client needs and deciding which services are appropriate to address those needs. Indeed, in many professions, and for many professionals, the worker is also the manager and, in many cases, the owner as well.

Teachers' jobs can be more rewarding when teachers are genuinely engaged in improvement.

### **Box 1.3. Teachers and schools take on responsibility for reform in Finland**

*Finland has made teaching a sought-after occupation by raising entry standards and giving teachers a high degree of responsibility, including roles as “action researchers” to find effective educational solutions.*

Finland has raised the social status of its teachers to a level where there are few occupations with higher status. University professors are among the most highly regarded of all professionals, and even the word for teacher is the same for school teachers as for university professors. In 2010, over 6 600 applicants competed for 660 available slots in primary school preparation programs in the eight universities that educate teachers, making teaching one of the most sought-after professions.<sup>14</sup> As a result of this competitive climate, teaching is now a highly selective occupation in Finland, with highly skilled, well-trained teachers spread throughout the country.

While teachers in Finland have always enjoyed respect in society, a combination of raising the bar for entry and granting teachers greater autonomy over their classrooms and working conditions than their peers enjoy elsewhere has helped to raise the status of the profession. Finnish teachers have earned the trust of parents and the wider society by their demonstrated capacity to use professional discretion and judgment in the way they manage their classrooms and respond to the challenge of helping virtually all students become successful learners.

Since the 1980s, the Finnish system of accountability was redeveloped entirely from the bottom up. Teacher candidates are selected, in part, according to their capacity to convey their belief in the core mission of public education in Finland, which is deeply humanistic as well as civic and economic. The preparation they receive is designed to build a powerful sense of individual responsibility for the learning and well-being of all the students in their care. During their careers, they must combine the roles of researcher and practitioner. Finnish teachers are not only expected to become familiar with the knowledge base in education and human development, but are also required to write a research-based thesis as the final requirement for the Masters degree.

In education too, policy makers have often concluded that top-down initiatives alone were insufficient to achieve deep and lasting changes in practice because reforms focused on aspects that were too distant from the instructional core of teaching and learning; because reforms assumed that teachers would know how to do things they actually didn't know how to do; because too many conflicting reforms asked teachers to do too many things simultaneously; or because teachers and schools did not buy in to the reform strategy.

Over the past decade, many education systems have granted significantly more discretion to school heads and school faculties,<sup>15</sup> something that teachers often refer to as a factor contributing to the attractiveness of the teaching profession, and something that PISA shows to be closely related to school performance, when combined with appropriate accountability arrangements.<sup>16</sup> Finland (Box 1.3) and Ontario (Box 4.4) provide examples of how formerly centralized systems have shifted emphasis towards:

- improving the act of teaching;
- giving careful and detailed attention to implementation, along with opportunities for teachers to practice new ideas and learn from their colleagues;
- developing an integrated strategy and set of expectations for both teachers and students; and
- securing support from teachers and unions for the reforms.



In some countries, great discretion is given to the faculty, as a whole, and its individual members. In others, more discretion is given to schools that are doing well and less to those that might be struggling. In some countries, the school head is little more than the lead teacher; in others, the authorities continue to look to the school head to set the direction and manage the faculty.

Results from PISA suggest that an emphasis on professional responsibility at the frontline does not conflict with the establishment of centralized standards and assessments; rather, these go hand in hand.<sup>17</sup>

Recruitment measures can be adapted to bring in teachers from a wider range of backgrounds.

Countries are also trying to attract different types of people into teaching, not just to overcome shortages, but also to broaden the range of teachers' backgrounds and experiences. This includes promoting the benefits of a teaching career to groups who are often under-represented among teacher ranks, such as males and those from minority backgrounds.

The following are some examples of interesting techniques various countries use to do so:

- Opening the teaching profession to individuals with relevant experience outside education, not just in vocational programs (whose teachers are required to have industrial experience in some countries).
- Recognizing the skills and experience gained outside education and reflecting those in starting salaries.
- Enabling appropriately qualified entrants, including mature student teacher trainees, to start working and earning a salary before acquiring teacher education qualifications.
- Offering more flexible approaches to teacher education that create opportunities for part-time study and distance learning, and that give credits for relevant qualifications and experience. Such alternative pathways into teaching can be particularly appealing to under-represented groups, such as males and those from minority backgrounds.

Teachers are paid less than most college graduates, but selective incentives, flexibly applied, can use scarce resources to help attract teachers where needed.

Teachers' salaries increased in real terms between 1996 and 2008 in virtually all OECD countries, but tend to remain below those of other graduates (Figure 1.1 and Annex A). Statutory salaries for teachers with 15 years of experience are, on average, below 80% of full-time earnings for 25-64 year-olds with tertiary education, and 60% or below in the Czech Republic, Hungary, Iceland, Israel, Italy, Slovenia and the United States.<sup>18</sup> At the same time, other aspects of teachers' employment conditions, such as vacations, relative job security and pensions, are often more generous than in other occupations. OECD research suggests that where teachers' salaries are low relative to professions requiring similar qualifications, teacher supply appears to be quite price-elastic: for a given percentage increase in teachers' relative salaries, the supply of potential teachers increases by a greater percentage. In countries where teachers' salaries are already relatively high, teacher supply tends to be less elastic: a given percentage rise in salary produces a lower percentage increase in supply.<sup>19</sup>

Nevertheless, the large size of the teaching workforce means that to raise salaries across-the-board by even a few percentage points is very costly. Furthermore, the teacher labor market is diverse, and teacher recruitment difficulties vary by type of school, subject specialization, and region. Also, in many countries the problems of teacher shortages and high turnover of staff are felt most acutely in schools that are already disadvantaged. Some countries are therefore targeting larger salary increases to schools with particular needs or teacher groups in short supply (Chapter 3). For example, some targeted policy initiatives aim to attract teachers in subjects such as mathematics, science, technology, and vocational subjects.

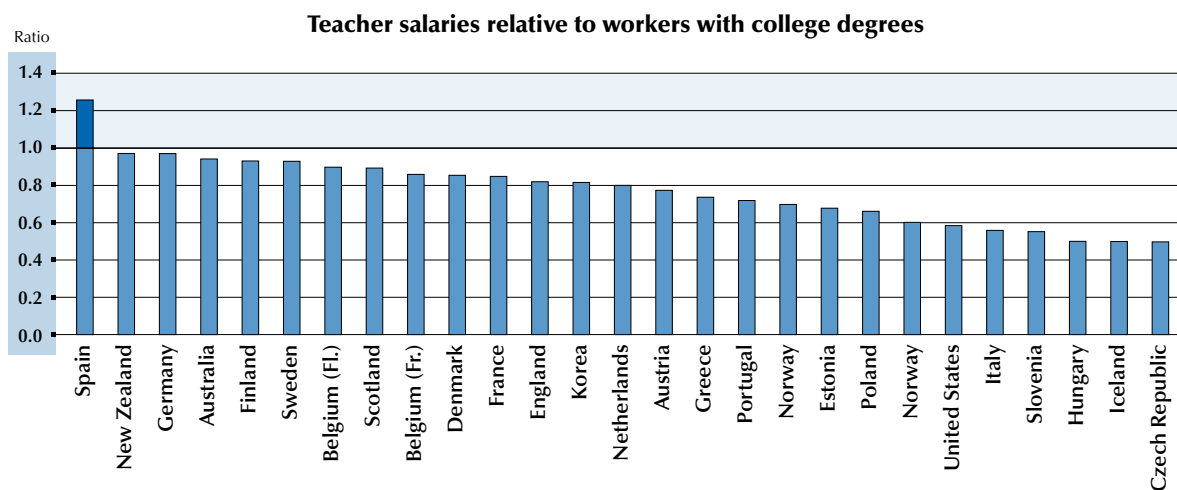
Fee waivers, scholarships and forgivable loans are some of the financial incentives being proposed to attract such people into teacher education; and salary bonuses and recognition



of work experience are provided for those who already have the types of qualifications that are in short supply. Some countries offer substantial salary allowances for teaching in difficult areas, transportation assistance for teachers in remote areas, or bonuses for teachers with skills in short supply to help ensure that all schools are staffed with teachers of similar quality.

Also worthy of attention are non-salary strategies, such as less class contact time or smaller classes, for schools in difficult areas or that have particular educational needs.

Figure 1.1



Countries are ranked in descending order of the ratio of salary after 15 years of experience/minimum training to earnings for full-time full-year workers with tertiary education aged 25 to 64 (latest available year).

Source: OECD, *Education at a Glance 2010*, Table 3.1 (continued).

At the Summit, Norway reported on work with media to reduce the teacher bashing that had been prevalent in the media. Other countries such as China and Japan reported on public recognition days for teachers when respect for the profession is emphasized.<sup>20</sup>

As important as salaries is the professional public image of teachers.

All this said, policies to encourage more people to enter teaching are unlikely to pay off if high-quality candidates find it hard to gain teaching posts. The best candidates, who are likely to have good job prospects outside teaching, may not be willing to wait in a lengthy queue or endure a succession of short-term teaching assignments in difficult schools. Well-structured and well-resourced selection processes and programs of induction that ensure that the best candidates get the available jobs are therefore critical. Reducing the weight given to seniority in ranking applicants for teaching vacancies can also help reduce the risk that new teachers will be disproportionately assigned to difficult schools.

The best potential candidates need access to good teaching jobs.

## ENSURING HIGH-QUALITY INITIAL TEACHER EDUCATION

Initial teacher education varies significantly across countries, and it is beyond the scope of this report to assess related policies and practices. However, OECD research has identified some principles that are worth noting:<sup>21</sup>

- **Education systems benefit from clear and concise profiles of what teachers are expected to know and be able to do in specific subject areas.** Such profiles can guide initial teacher education, teacher certification, teachers' on-going evaluation, professional development and career advancement, and also help assess the extent to which these different elements are effective. The profiles can reflect the school's learning objectives and profession-wide understanding of what counts as accomplished teaching (Box 3.2).

High-performing countries have found ways of educating teachers to become more effective and play an active role in reform.



- Many countries have moved their initial teacher education programs towards a ***model based less on academic preparation and more on preparing professionals in school settings, with an appropriate balance between theory and practice***. In these programs, teachers get into classrooms earlier, spend more time there and get more and better support in the process. This can include both extensive course work on how to teach – with a strong emphasis on using research based on state-of-the-art practice – and more than a year teaching in a designated school, associated with the university, during which time the teacher is expected to develop and pilot innovative practices and undertake research on learning and teaching.
- ***More flexible structures of initial teacher education can be effective in opening up new routes into the teaching career, without compromising the rigor of traditional routes***. The stages of initial teacher education, induction and professional development need to be interconnected to create a lifelong learning framework for teachers. In many countries, teacher education is not just providing sound basic training in subject-matter knowledge, pedagogy related to subjects, and general pedagogical knowledge; it also seeks to develop the skills for reflective practice and on-the-job research. Increasingly, initial teacher education tends to place more emphasis on developing the capacity of teachers in training to diagnose student problems swiftly and accurately and to draw from a wide repertoire of possible solutions those that are appropriate to the diagnosis. Some countries provide teachers with the research skills needed to enable them to improve their practice in systematic ways. For example, both in Finland (Box 1.3), Japan and the Shanghai province of China (Box 1.4), teachers are trained to be action researchers in practice, with the ability to work out ways of ensuring that any student starting to fall behind is helped effectively.

In addition, some countries have moved from a system in which teachers are recruited into a larger number of specialized colleges of teacher education, with relatively low entrance standards, to a system of a relatively smaller number of university-based teacher-education colleges with relatively high entrance standards and relatively high status in the university.





### Box 1.4. Preparing teachers to lead improvement

#### ***In Japan, all teachers participate in regular lesson studies in their schools.***

The Japanese tradition of lesson study in which groups of teachers review their lessons and how to improve them, in part through analysis of student errors, provides one of the most effective mechanisms for teachers' self-reflection as well as being a tool for continuous improvement. Observers of Japanese elementary school classrooms have long noted the consistency and thoroughness with which a math concept is taught and the way in which the teacher leads a discussion of mathematical ideas, both correct and incorrect, so that students gain a firm grasp on the concept. This school-by-school lesson study often culminates in large public research lessons. For example, when a new subject is added to the national curriculum, groups of teachers and researchers review research and curriculum materials and refine their ideas in pilot classrooms over a year before holding a public research lesson, which can be viewed electronically by hundreds of teachers, researchers and policymakers.

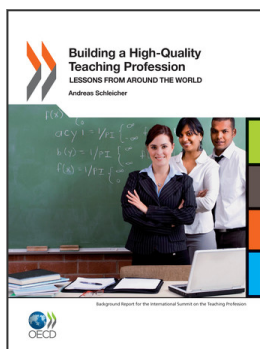
The tradition of lesson study in Japan also means that Japanese teachers are not alone. They work together in a disciplined way to improve the quality of the lessons they teach. That means that teachers whose practice lags behind that of the leaders can see what good practice is. Because their colleagues know who the poor performers are and discuss them, the poor performers have both the incentive and the means to improve their performance. Since the structure of the East Asian teaching workforce includes opportunities to become a master teacher and move up a ladder of increasing prestige and responsibility, it also pays the good teacher to become even better.

#### ***In China, teachers are trained to be action researchers in effective practice, with the best teachers going on to support new teachers and helping to improve lesson quality.***

The authorities in the Shanghai province of China emphasize giving prospective teachers the skills they will need for action research, and their method for improving their education system over time relies on research performed by teachers. As in Finland (Box 1.3), all students in Shanghai are expected to perform at high levels and teachers are expected to make sure that no student, literally, will be allowed to fall behind. This makes it essential that teachers identify students who are just beginning to flounder, diagnose the problem, and have the skills and knowledge needed to create a large and constantly updated reservoir of solutions to the student performance problems they have diagnosed.

During the course of their careers, teachers in Shanghai are involved in subject-based "teaching-study groups" to improve teaching at the grassroots level on a day-to-day basis. There are timetabled sessions when the study group meets, often with related personnel, such as laboratory assistants, to draw up very detailed lesson schemes for a particular topic the following week. The lesson plan serves not only as a guide for the teacher during the lesson, but also as documentation of the teacher's professional performance. During actual teaching, teachers may observe each other or may be observed by peers. For example, when a change in curriculum introduces a new teaching topic, teachers may be observed by new teachers, so these can learn from more experienced colleagues; by senior teachers, for mentoring purposes; or by the school principal, for monitoring or to provide constructive development assistance. Sometimes, teachers are expected to teach demonstration lessons, called public lessons, for a large number of other teachers to observe and comment upon.

This structured organization of teaching in Shanghai is not only a means for administration; it is also a major platform for professional enhancement. Teachers in Shanghai are classified into four grades that indicate their professional status. Promotion from one grade to the next often requires the capacity to give demonstration lessons, contribute to the induction of new teachers, publish in journals or magazines about education or teaching, and so forth. The provincial office often identifies the best of the teachers who emerge from evaluation processes and relieves them of some or all of their teaching duties so that they can give lectures to their peers, make demonstrations, and coach other teachers on a district, provincial and even national level. Carefully picked schools are often asked to pilot new programs or policies before they are scaled-up, and the best teachers in those schools are enlisted as co-researchers to evaluate the effectiveness of the new practices.



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