

Developing and Sustaining a High-Quality Teacher Force



Partnership for
Global Learning

A GLOBAL CITIES EDUCATION NETWORK REPORT

DEVELOPING AND SUSTAINING A HIGH-QUALITY TEACHING FORCE

Prepared for the Global Cities Education Network

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FOREWORD

Globalization of the economy, increasingly diverse and interconnected populations, and rapid technological change are posing new and demanding challenges to individuals and societies alike. School systems are rethinking the knowledge and skills students will need for success and the educational strategies and systems required for all children to achieve them. In both Asia and North America, urban school systems are at the locus of change in policy and practice—at once the sites of the most critical challenges in education and the engines of innovation needed to address them.

Therefore, Asia Society organized the Global Cities Education Network, a network of urban school systems in North America and Asia to focus on challenges and opportunities for improvement common to them, and to virtually all city education systems. A critical element of high-performing school systems is that they not only benchmark the practices of other countries, but they systematically adapt and implement these practices within their own cultural and political contexts. The Global Cities Education Network is intended as a mechanism for educators and decision makers in Asia and North America to *collaboratively* dream, design, and deliver internationally informed solutions to common challenges with which education systems are currently grappling.

The network engages in cycles of in-depth inquiry, planning, and action to address specific topics related to the themes of transforming learning and achieving equity. Each cycle involves knowledge sharing and problem solving, including at Global Cities Education Network Symposia and the production of research and knowledge products such as case studies, background papers, and meeting reports. The overarching goal is to develop practical wisdom from the research and experience of the world's leading experts that reflect proven or promising efforts in network cities, and that can be used to enhance the effectiveness of network and city school systems worldwide.

The initial participating cities are Chicago, Denver, Hong Kong, Melbourne, Seattle, Seoul, Shanghai, Singapore, and Toronto. The first meeting of the network took place in Hong Kong on May 10–12, 2012. Participants there identified several common high-priority problems of practice and agreed to initially focus on two: the need to develop and sustain a high-quality teaching force, and the need to improve educational outcomes for low-performing and linguistically and culturally diverse students.

For each topic, a strand of work was initiated, beginning with a practice-based study involving network cities as collaborative partners in all aspects of the investigation. *Developing and Sustaining a High-Quality Teacher Force*, was led by Linda Darling-Hammond, Charles E. Ducommun Professor of Education at Stanford University. *Improving Performance of Low-Achieving and Culturally and Linguistically Diverse Students*, was led by the Ontario Institute for Studies in Education, University of Toronto. Initial results from each study were presented at the second Global Cities Education Network Symposium on January 17–19, 2013, in Seattle, Washington.

This report is the final result of Dr. Darling-Hammond's study, which describes, in brief, the strategies used to develop and support high-quality teaching in three cities from different nations on three separate continents. The cities—Melbourne, Australia; Singapore; and Toronto, Canada—have developed a number of productive policies and practices that aim to create

strong teaching and school leadership workforces in very different contexts. First, the cross-city analysis,

Strategies from Cities Around the World, highlights key findings drawn from the more in-depth case studies that follow. The case studies look at each city's work as it is nested in and shaped by its national- and state-policy contexts. The cross-city analysis draws out commonalities across the three cities and then focuses on particularly strategic examples of policies and practices related to:

- recruitment
- preparation
- induction
- ongoing professional learning opportunities
- evaluation
- leadership and career development

We at Asia Society hope that this series of reports provides knowledge and experience useful to Asian, North American, and other cities eager to create the conditions that will promote success for all students in today's interconnected world.

We would like to thank the sponsors of the Global Cities Education Network, including: Carnegie Corporation of New York, JPMorgan Chase Foundation, Bill & Melinda Gates Foundation, Pearson Foundation, Medtronic Foundation, MetLife Foundation, and The NEA Foundation.

Tony Jackson
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STRATEGIES FROM CITIES AROUND THE WORLD

This paper describes, in brief, the strategies used to develop and support high-quality teaching in three cities from different nations on three separate continents. The cities—Melbourne, Australia; Singapore; and Toronto, Canada—have developed a number of productive policies and practices that aim to create strong teaching and school leadership workforces in very different contexts. This brief highlights key findings drawn from more in-depth case studies, which look at each city’s work as it is nested in and shaped by its national- and state-policy contexts. It also draws out commonalities across the three cities and then focuses on particularly strategic examples of policies and practices related to:

- recruitment
- preparation
- induction
- ongoing professional learning opportunities
- evaluation
- leadership and career development

In what follows, we offer a glimpse of what well-developed systems look like in different contexts, so that policy makers and practitioners can consider a range of options that might be available and successful. By exploring other systems in depth, policy makers can see what the implementation challenges are, how others have dealt with them, and what remains to be solved. Common themes across the cases include the shared emphasis on:

- a systemic approach
- strong recruitment initiatives
- increasingly thoughtful preparation and mentoring
- purposeful support for ongoing learning
- proactive leadership development

THE THREE CITIES

Melbourne, Singapore, and Toronto are all examples of jurisdictions that have very diverse student populations and strong achievement relative to other cities and states around the world. All are in nations that rank among the top ten on measures like the PISA (Program for International Student Assessment), and Melbourne and Toronto are in states that rank among the highest achieving within their nations. (Singapore, of course, is a city that is also a nation.)

Melbourne (Victoria, Australia)

Melbourne, the capital of the state of Victoria, had a population of just over 4.1 million in 2011. Nearly 37 percent of its residents were born overseas, with those from England, India, China, Italy, and New Zealand topping the list; 58 percent had at least one parent who was born overseas. More than one hundred languages are spoken by the city’s residents. The most common languages other than English are Greek, Italian, Mandarin, Vietnamese, and Cantonese.

Melbourne schools are governed by the Victoria Department of Education and Early Childhood Development (DEECD). Of Victoria's approximately 2,200 schools, about 1,270 are in Melbourne. The majority of Victoria's schools are government schools, which serve about 64 percent of its 859,221 students. Melbourne Catholic schools serve about 23 percent, and the remaining students (about 13 percent) are in independent schools.

Education in Australia is primarily the responsibility of the six states and two territories. Unlike the education systems in the United States and Canada, where there is a prominent role for substantially autonomous local school districts, in Australia, the administration of schools is managed at the state level, even for large cities like Melbourne. Historically the role of the federal government has been minimal. However, a new national curriculum and assessment system, as well as new national teaching standards and new standards for accreditation of initial teacher education, are creating a larger federal role.

Singapore

Singapore's 646 square kilometers define a compact country whose four million people represent a diverse population of Chinese, Malay, Indian, and other groups, covering a wide spectrum of religions, cultures, and languages. Although English is the language of instruction, it is spoken at home by fewer than half of Singapore's 510,000 students, all of whom are expected to maintain their mother tongue as well as English (and often, to learn at least one other language) under the country's policy of bilingualism.

This small nation—with about the same population as Kentucky, the median U.S. state—has been steadily building an education system that today seeks to ensure every student has access to strong teaching, an inquiry curriculum, and cutting-edge technology. Education spending usually makes up about 20 percent of the annual national budget, which subsidizes state education and government-assisted private education for citizens.

Education in Singapore is managed by the Ministry of Education, which administers all state schools, and which has a strong supervisory role with respect to the private schools on the island, most of which are also state subsidized. Of primary schools, 41 of 173 are government-aided private schools; of secondary schools, 28 of 155 are government-aided private schools and 3 are independent schools. Singapore has the advantage of being a single system that can easily create a comprehensive approach to developing a highly integrated teaching and learning system. This characterizes its efforts with respect to teaching quality.

Toronto (Ontario, Canada)

Toronto is the leading city in Ontario, the most populous of Canada's thirteen provinces and territories. Ontario has been the province of choice for over half of all new immigrants, most of whom have chosen to settle in Toronto. The Toronto District School Board (TDSB) is the largest and most diverse school board in Ontario, and in Canada. About 53 percent of TDSB's 260,000 students have a language other than English as their mother tongue or as the primary language spoken at home; more than eighty languages are spoken by Toronto's students. Approximately 26 percent of Toronto's students were born outside of Canada.

Ontario has four publicly funded school systems (English public, English Catholic, French public, and French Catholic), with the English schools making up the majority of the publicly funded schools. According to ministry data from 2009–2010, there were 1.3 million students in the publicly funded schools,

including 659,000 students in the publicly funded Catholic schools. There are approximately 4,900 elementary and secondary schools. The number of full-time equivalent teachers and administrators hovers around 121,000.

In Canada, the primary responsibility for education rests with the provinces. The federal government has no formal role. With respect to teaching-quality issues, the provincial government and the Ontario College of Teachers (OCT) play an important role, along with the city school district.

A SYSTEMIC APPROACH

While the teacher development systems of Melbourne, Singapore, and Toronto differ in significant ways, what they have in common is that they are, indeed, systems for teacher and leader development. They include multiple interrelated components, not just a single policy, and these components are intended to be coherent and complementary, and to support the overall goal of ensuring that each school in each jurisdiction is staffed with effective teachers and is led by an effective principal. While there are challenges to this goal, each of the jurisdictions is consciously working to address all of the parts of a comprehensive system.

The systems in all three contexts increasingly encompass the full range of policies that affect the development and support for teachers and school leaders, including the recruitment of qualified individuals into the profession, their preparation, their induction, their professional development, their evaluation and career development, and their retention over time. This requires that state or national policies be connected to local policies, needs, and conditions—something that has been relatively rare in many places in the past. In places where all of the components are not yet working optimally, efforts are under way to create stronger practices and better links.

That said, each of the jurisdictions has chosen to place its emphases on somewhat different aspects of the system. Melbourne has established professional standards for teacher registration (known as certification or licensure in the United States) and accreditation of preparation programs, and has recently increased the incoming supply of teachers with a range of service scholarships and incentives for entry. The Victoria DEECD has launched a variety of partnerships with universities to transform preparation—in particular to create much stronger clinical preparation in collaboration with partnership schools. It has also invested in leadership development for teacher leaders and prospective principals, with a focus on whole school improvement.

Toronto, in concert with its home province, Ontario, emphasizes building the capacity of the teaching workforce using the standards set by the Ontario College of Teachers as the foundation for the profession. Teacher-education candidates are evaluated against the competencies defined in the Ontario College of Teachers' Standards of Practice. New teachers are evaluated on eight out of sixteen competency statements based in three domains (Commitment to Pupils and Pupil Learning, Professional Knowledge, and Teaching Practice).

The province of Ontario also instituted a comprehensive induction program for new teachers that includes professional development and appraisal, as well as an appraisal program for all teachers that focuses on development and growth based on the OCT standards. The TDSB has added other elements to the induction requirements to create a strong entry system for new teachers. Professional learning opportunities are both

individual and collective, and are tied to research-based strategies for school improvement. These policies are intended to complement the strong initial preparation that all teachers receive, and they have served to reverse an exodus from the teaching profession.

Singapore augments its strong initial preparation and induction with a highly developed performance management system that spells out the knowledge, skills, and attitudes expected at each stage of a teacher's career and, based on careful evaluation and intensive supports, provides a series of career tracks that teachers can pursue. This enables teachers to become mentor teachers, curriculum specialists, or principals, thereby developing talent in every component of the education system. The systems in all three jurisdictions are continually being refined as needs in various areas emerge.

RECRUITMENT STRATEGIES

Leaders in Melbourne/Victoria, Singapore, and Toronto/Ontario all believe that getting the right people into teaching and preparing them well is a critical piece in teacher development. All of these systems have worked to strengthen their capacity to recruit strong teachers.

Recruiting talent begins with creating an attractive profession that many individuals want to join and stay in. In some respects, this attractiveness is a cultural phenomenon. Leaders in these jurisdictions have frequently expressed their belief that teachers are vital, and that has helped raise the status of the profession. In 1966, when Singapore had just achieved its independence, the then minister of education Ong Pang Boon declared, "The future of every one of us in Singapore is to a large extent determined by what our teachers do in the classroom." Forty years later, Singapore's prime minister Lee Hsien Loong reaffirmed this commitment: "Just as a country is as good as its people, so its citizens are only as good as their teachers."

In Singapore, the attrition rate of teachers is less than 3 percent annually, which is less than half the annual attrition rate for teachers in the United States. Based on a recent Ministry of Education survey, teachers rank the following top three reasons for staying in teaching: positive culture with a strong sense of mission; good compensation and rewards benchmarked against market rates; and a wide range of opportunities for professional growth and development.

As these reasons to stay in teaching suggest, the respect accorded to teachers is not all about money. While new teachers in Singapore are paid as well as engineers and accountants in the civil service, teachers in Toronto earn about the average salary for college graduates. In Melbourne, teachers begin with salaries comparable to those of other professionals in fields like law and computer science.

In Ontario, the provincial premier bestows annual awards for excellent teachers. The Premier's Awards for Teaching Excellence are given each May to "recognize educators and staff who excel at unlocking the potential of Ontario's young people," as the province's website puts it. Teachers are supported in using research to improve their practice and their schools, and they are recognized when their efforts succeed. Teachers can earn more as they gain expertise by completing additional qualifications that enhance their knowledge and skills in areas such as special education, English as a second language, and French as a second language.

As part of its efforts to professionalize teaching, Ontario ended several policies adopted in the 1990s, such as testing and evaluation requirements that teachers had seen as punitive, and which had led to an exodus from the profession. The incoming Labor government, which took office in 2004, instead created a Working Table on Teacher Development that included teacher representatives, and adopted policies aimed at providing support and building teachers' capacity to teach more effectively. The province now has a large surplus of teachers, as does Singapore.

While supply and demand are generally in balance in Victoria—and teaching in the Melbourne metropolitan area is particularly attractive—there are shortages in particular content areas like math and science, and more acute needs in some locations, especially in outlying areas and in low-socioeconomic status schools. To address these needs, the DEECD has launched several service scholarships to underwrite preparation for high-need teachers, plus incentives like stipends and travel support for teachers who complete their practicum in high-need locations. Such recruitment initiatives, together with innovative new approaches to teacher preparation and recent increases in salaries, have contributed to a noticeable upswing in preparation enrollments in the last few years. Removing the limits on numbers of subsidized university places has also had an impact.

In Singapore, teacher education has traditionally recruited participants from the top third of the high school cohort. It remains selective, as the nation has moved rapidly toward graduate-level preparation. In Ontario, where graduate-level preparation is also the norm, the process is highly competitive. In Melbourne, new graduate-level programs, such as the one recently launched by the University of Melbourne, are highly desired and increasingly competitive as well.

Significantly, all three jurisdictions subsidize the preparation of teachers. In Singapore, teacher education is paid for completely by the government, and candidates earn a stipend or a salary while they train. In Ontario, the government covers about two-thirds of the cost of candidates' preparation. In Australia, most teacher-education students attend college in "Commonwealth supported" slots. In 2012 the Commonwealth subsidy for teacher education was about \$9,000 (Australian) per student. With these subsidies, promising students can enter teacher education knowing that they will not carry large debts once they graduate.

PREPARATION

Once selected, applicants for teaching in each jurisdiction go through preparation programs that are guided by professional teaching standards and that are increasingly tied to practice in the schools. Each of the three jurisdictions has recently adopted standards that describe the knowledge and skills that teachers programs are expected to impart and that candidates are expected to acquire. In Singapore, the statement of competencies has been developed by the National Institute of Education—the only teacher-education institution in the nation. Ontario and Victoria established teacher-governed bodies to set standards for the teaching profession: The Ontario College of Teachers and the Victoria Institute on Teaching.

Singapore revamped its teacher-education programs in 2001 to increase teachers' pedagogical knowledge and skills as well as their content knowledge. Singapore has been moving toward graduate-level training of teachers, with about two-thirds now completing a one-year master's degree program following the undergraduate content major, and one-third completing a four-year undergraduate program. All teachers, including those who will teach in elementary schools, must demonstrate deep mastery of at least one

content area (plus study of other subjects they will teach), and clinical training has been expanded. A new school partnership model engages schools more proactively in supporting trainees during their practicum experiences.

All pre-service preparation in Singapore occurs in the National Institute of Education (NIE), affiliated with Nanyang Technological University (NTU). At the NIE, candidates learn to teach in the same way they will be asked to teach. Every student has a laptop, and the entire campus is wireless. The library spaces and a growing number of classrooms are consciously arranged with round tables and groups of three to four chairs, so that students will have places to share knowledge and collaborate. Comfortable areas with sofa-and-chair arrangements are designed for group work among teachers and principals, with access to full technology supports (e.g., DVD players, video and computer hookups, and plasma screens for projecting their work as they do it). During the course of preparation, there is a focus on teaching for problem-based and inquiry learning, on developing collaboration, and on addressing a range of learning styles in the classroom.

Ontario teachers also go through rigorous preparation at one of eighteen programs accredited by the Ontario College of Teachers. These programs generally consist of three or four years of undergraduate study and a year of teacher preparation at a faculty of education. The University of Toronto / OISE, the largest supplier of teachers to the TDSB, has recently created a two-year master's degree program that significantly extends the clinical experience for candidates and deepens their coursework to teach diverse learners, with the result that teachers feel much better prepared for the challenges they face in the classroom.

In Melbourne, there are several major initiatives under way to create new models of preparation featuring strong partnerships between universities and schools. The Victoria DEECD has funded the School Centres for Teaching Excellence (SCTE), which funds seven university-school clusters comprising six universities and fifty schools. The SCTE is transforming clinical placements for pre-service teachers, so that they are more closely integrated with teacher-education courses and with the life of the school. These more immersive residency models involve university faculties' working with teams of teachers and student teachers in schools—undertaking curriculum planning, school improvement strategies, and research, much like professional development school models launched in the United States.

The University of Melbourne has also dramatically reformed its teacher-education programs by creating two-year clinical Master of Teaching degrees for early childhood, primary, and secondary teachers. These programs now enroll more than 1,200 candidates and are in high demand. Launched in partnership with the DEECD and the Catholic Education Office in Victoria, the two-year Master of Teaching, influenced in part by the Teachers for a New Era program in the United States, is designed as a research-based clinical program that integrates academic study with practical work in collaborating partnership schools. It is designed to develop graduates who have the professional capabilities to meet the needs of individual learners by using data to plan and implement teaching interventions. Studies have found that more than 90 percent of these Master of Teaching graduates feel well prepared for teaching, as compared to about half as many new teachers nationwide.

Another one of Melbourne's ambitious initiatives to strengthen clinical preparation of teachers is the development of the Charles La Trobe Teaching School. As part of an agreement between the DEECD at Charles La Trobe P-12 College and the teaching faculty at La Trobe University, the new partnership will

fully redesign the Charles La Trobe College (CLTC) teacher-education program and introduce a school-based residency model—ultimately including fifteen schools—which will be tightly connected to the university, so that new teachers can learn evidenced-based clinical practice through an inquiry approach to preparation.

INDUCTION

When new teachers enter the profession, they experience significant induction supports. In Singapore, beginning teachers receive two years of coaching from expert senior teachers who are trained by the National Institute of Education (NIE) as mentors and are given released time to help beginners learn their craft. During the structured mentoring period, beginning teachers teach a reduced load (about two-thirds that of an experienced teacher) and attend courses in classroom management, counseling, reflective practices, and assessment offered by the NIE and the Ministry of Education.

In Ontario, a recently enacted New Teacher Induction Program (NTIP) provides a range of supports, including orientation, mentoring, and professional development focused on key areas of need identified by new teachers, including classroom management, communication with parents, assessment and evaluation, and work with special-needs students. In alignment with NTIP, the Toronto District School Board provides support for mentoring and professional development, which include:

- Job Embedded Learning Initiative (JELI) for first-year, second-year and newly hired long-term occasional teachers
- Job Associated Mentoring (JAM) for third- and fourth-year beginning teachers
- Demonstration classroom learning: focused observations, debriefing, action planning, and co-teaching opportunities in various grades and subjects
- Summer orientation for new hires, including curriculum based professional learning
- Professional learning for mentors

As a sign of the effectiveness of this approach, over the last five years, the TDSB has hired almost four thousand beginning teachers and, throughout the 2005–2010 period, the district retained over 98 percent of first-year hires annually.

In Victoria, the DEECD and the Victoria Institute on Teaching collaborate to support early career mentoring. New teachers have two years to become fully registered by meeting the VIT's Professional Standards of Practice. Their progress is supported and documented by mentor teachers, who can themselves receive training and support through the Teacher Mentor Support Program—a joint initiative of the DEECD and VIT. Generally mentor support is provided for the new teacher's first year, but it is expected that the support will be continued as long as teachers need it. New teachers report that the support they receive is helpful, and it likely contributes to greater longevity for many of them. Nonetheless, teacher attrition in Victoria is noticeably higher than in Toronto or Singapore (5.4 percent annually for all government teachers, excluding those on fixed term contracts who leave at higher rates, and higher still for beginners). Researchers in Australia note that the increasingly common practice of hiring beginning teachers on short-term contracts appears to increase new teacher attrition.

CONTINUOUS PROFESSIONAL LEARNING

In addition to providing strong initial preparation for teachers and creating working conditions that encourage retention, each of these jurisdictions provides opportunities and support for teachers to develop their knowledge and skills, to improve their practice, and to grow as professionals.

The Ontario Ministry of Education has adopted a multifaceted set of capacity-building strategies to support effective leadership, teaching, and student learning. Teachers and principals have six professional activity days every school year to work with each other on activities related to key state and local priorities. The ministry also fosters capacity building and collaboration by sharing information about existing and emerging successful practices in schools and classrooms through studies, webcasts, and videos of effective practices that can be used in professional development initiatives.

Ontario thinks about professional learning as an activity that needs to occur at the system level, with initiatives that promote learning across districts and schools, as well as within them. A number of initiatives focus on collaborative inquiry, including many that include cross-school and cross-district teams, as well as learning communities within the schools. Through such initiatives, teacher dialogue is anchored in an examination of the student learning that has occurred as a result of collaboration and planning. These processes are designed for teachers, school leaders, and district school board leaders to use, share, and leverage successful school-based practices in assessment, planning, and instruction.

Ontario's annual evaluation system for teachers is also designed for professional growth and inquiry. As part of the system, teachers complete an Annual Learning Plan, which outlines growth goals for the year. This plan allows teachers and principals to work together to plan improvement strategies and identify needed professional development.

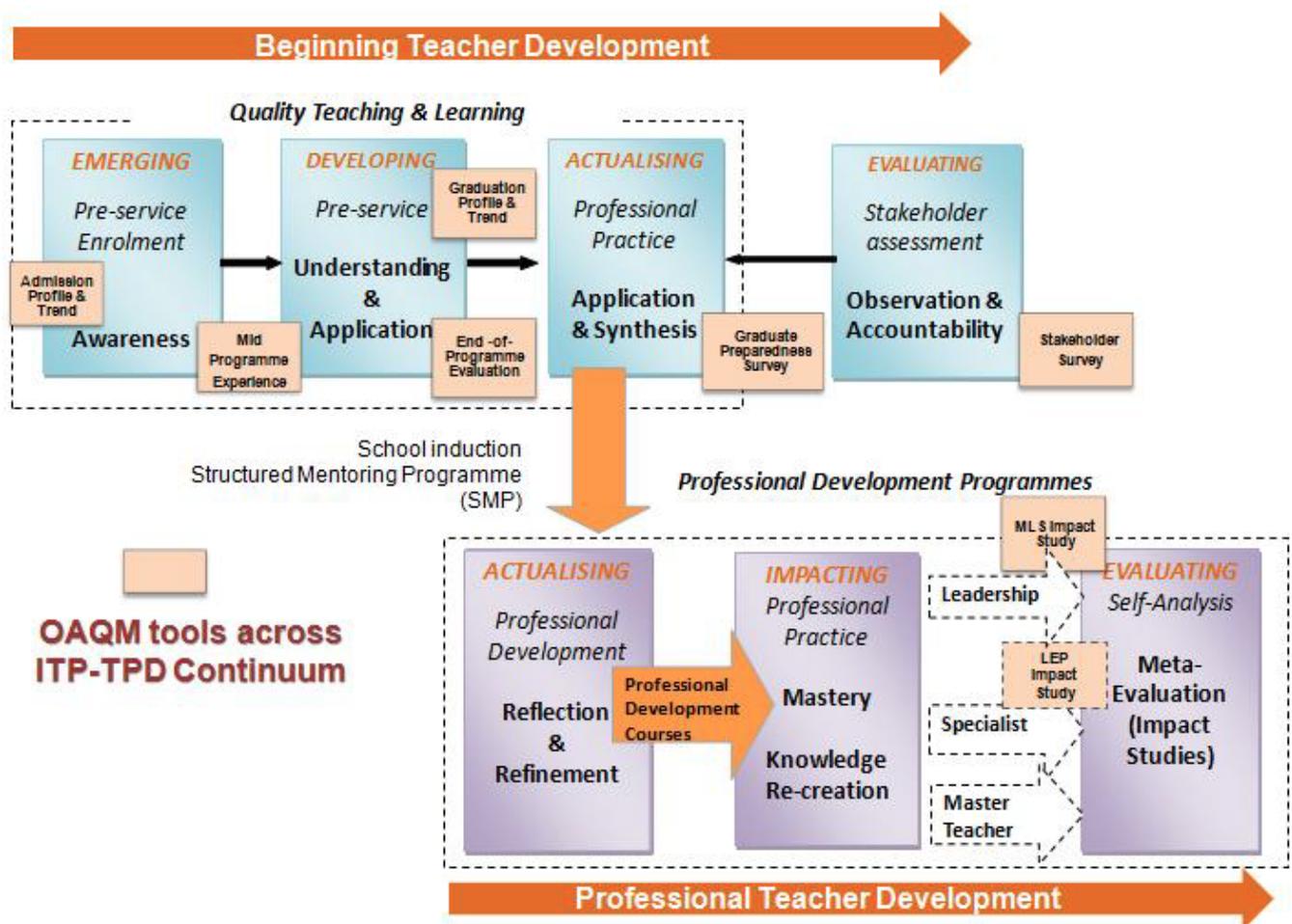
In Victoria, the DEECD has sought to frame professional learning and evaluation in a school-wide context through its Performance and Development (P&D) Culture framework, which ties school accreditation to the extent to which the school provides effective induction and mentoring support; uses multiple sources of feedback to inform individual, team, and collective practice; supports educators to develop a P&D plan aligned with school goals and informed by feedback; creates a professional learning strategy that reflects individual, team, and collective development needs; and creates the internal capacity to engage in ongoing improvement.

The P&D process for employees involves goal-setting and cycles of performance evaluation, tied to professional development to support teacher learning. The DEECD makes available a range of professional learning programs and resources for educators, including awards, fellowships, and curriculum-focused professional learning. These are underpinned by the Seven Principles of Highly Effective Professional Learning, which call for professional learning that is collaborative, embedded in practice, and aimed at bridging the gap between students' potential and their current performance.

Singaporean teachers have about twenty hours a week built into their schedule for shared planning and learning, including visits to one another's classrooms, as well as one hundred hours per year of state-supported professional development outside of their school time. The NIE and Ministry of Education have trained teachers for lesson study and action research in the classroom so that they can examine teaching and learning problems and find solutions that can be disseminated to others. The ministry has just established a

new teachers' academy to support teacher-initiated and teacher-led learning opportunities around subject matters across schools. The academy supports learning circles, teacher-led workshops, conferences, and a website and publications series for sharing knowledge. To support school-based learning, senior and master teachers are appointed to lead the coaching and development of the teachers in each school.

Singapore has perhaps the most thorough and intensive process for deriving feedback about teacher training in the context of both pre-service and in-service learning opportunities. The NIE conducts its own evaluation of the pre-service courses and gathers feedback from new teachers on the effectiveness of these courses in teacher preparation. The information is used to make program improvements. In 2009 the NIE established an Office of Academic Quality Management (OAQM) to strengthen the academic quality of all of the institution's programs. It seeks to develop a culture of self-improvement in the NIE by gathering evidence-based feedback through student teachers' satisfaction surveys of their learning experiences while in the NIE, graduate preparedness for teaching in schools, and stakeholders' feedback on those graduates to ensure fitness of preparation for workplace requirements. The variety of tools used to assess the quality of teaching and learning at strategic points of the teacher development process is shown in the figure below.



Source: <http://nie.edu.sg/office-academic-quality-management/framework-processes/framework-oaqm-processes>

LEADERSHIP AND CAREER DEVELOPMENT

One of the most significant aspects of the educator development systems in Melbourne/Victoria, Toronto/Ontario, and Singapore is their investment in leadership development and support. These systems recognize that high-quality leadership strengthens teaching by providing skillful guidance and creating a school vision that teachers share.

All three jurisdictions have explicitly developed paths for teacher leadership, as well as strategies for proactively recruiting school principals from among the ranks of excellent teachers with leadership potential.

Singapore's performance-management system and career-ladder program help to create a strong profession. Teachers have numerous opportunities to grow professionally and take on leadership responsibilities based on demonstrations of competence. Depending on their own abilities and career goals, teachers can remain in the classroom and become lead and master teachers; they can take on specialist roles, like curriculum specialist or guidance counselor; or they can take the leadership track and become administrators at the school, district, regional, or national level. The Ministry of Education is constantly looking for ways to recognize and promote teacher leadership, both for individuals who have demonstrated various talents and for teachers as a whole.

All teacher and leadership training is at government expense. As teachers are promoted and selected into these kinds of roles, they receive free courses of study through the Ministry of Education at the National Institute of Education, sometimes while they are still teaching and other times while taking a sabbatical from their jobs. How far teachers advance depends on their interests and the competencies they demonstrate through the evaluation system. Greater compensation accompanies greater responsibility, and a teacher at the top of the master teacher track can earn as much as a school principal.

Ontario's Ministry of Education funds a Teacher Learning and Leadership Program, which provides job-embedded professional development for qualifying teachers. Teachers who are part of the program join a province-wide network, which shares ideas and best practices. The ministry also provides opportunities for teachers to spend a year or two in the ministry to work on provincial policy. This practice not only enhances teachers' knowledge and skills, but it also improves policy by giving teachers a hand in setting it and ensuring that it can be implemented effectively.

In Victoria, the Bastow Institute of Educational Leadership provides professional development and support for current and aspiring leaders from both the teacher and principal corps. Since 2010 approximately seven thousand educators have participated in courses designed to develop their knowledge and skills in ways that build on the principles of effective adult learning. Participants receive feedback from multiple sources and are provided with ongoing support through mentoring/coaching, peer learning groups, and online collaboration. Both the Catholic and independent school sectors are also in the process of further developing and implementing programs to enhance leadership capability. For example, the Catholic Leadership Centre will be opened by the Catholic Education Office of the Archdiocese of Melbourne in 2013; it will deliver courses in Catholic leadership and professional development for teachers in the Catholic sector, including a Master of Leadership. Independent Schools Victoria provides a range of

leadership programs in its Development Centre, including a new principals' course that includes a residential program and opportunities to interact with experienced principals.

In all three jurisdictions, school leaders are expected to be instructional leaders. They are expected to know curriculum and teaching intimately and be able to provide guidance and support to teachers. While management and budgeting are important aspects of leaders' jobs, their instructional leadership role is paramount. Effective instructional leaders can evaluate teachers skillfully, provide them with useful feedback, assess the school's needs for professional development, and direct instructional resources where they are most needed. Principals are expected to be attuned to the learning needs of students and adults.

To help ensure that all leaders can fulfill this role, Singapore and Toronto have been proactively recruiting principals from among the ranks of expert teachers who exhibit leadership potential, and Victoria is now developing a capacity to do so. The three jurisdictions also provide training for principals designed to ensure that they can assume the instructional leadership role expected of them.

In Singapore, teachers with leadership potential are identified early and groomed for leadership positions, generally progressing to subject head, head of department, vice-principal, and then principal. Potential principals, who are selected after a grueling interview process that includes a two-day simulation test, enter the six-month Leaders in Education program. This program, conducted by the Ministry of Education, includes education coursework, field-based projects, and mentoring from senior principals, as well as examinations of other industries and visits to other countries to learn about effective practices.

In Ontario, prospective principals take part in a Principals' Qualifications Program (PQP) accredited by the Ontario College of Teachers, which consists of two parts, each totalling 125 hours, plus a practicum. The program—structured around the Ontario Leadership Framework, which emphasizes instructional leadership and support—is provided by faculties of education and principals' associations. In addition to completing the PQP, principals must have an undergraduate degree, five years of classroom experience, qualifications in three divisions of the school system, and a double-subject specialist or a master's degree. Once appointed, all principals and vice-principals receive mentoring for their first two years in each role. This mentoring, fully funded by the ministry, is organized around a learning plan to guide the support.

In Victoria, the leadership programs of the Office of Government School Education (OGSE) are designed to develop the leadership skills of aspiring leaders. The Learning to Lead Effective Schools program was developed as a system-wide strategy to improve the practice and performance of schools in the government system. The Bastow Institute of Educational Leadership also plans to develop a program, in partnership with local universities, to prepare high-potential leaders for their first principal position. The program will have an explicit focus on leadership and management, leading change, and how to transform schools through people and teams.

CONCLUSION

While many communities have tackled one or more of these aspects of teacher quality, few have developed a comprehensive approach. And few states or districts have created a seamless, well-supported pipeline to school leadership positions. These cities offer important insights about how to envision, actualize, and continue to refine a teaching-quality system that can find, entice, develop, and support effective educators in increasingly effective schools.

DEVELOPING TEACHING QUALITY IN MELBOURNE, VICTORIA, AUSTRALIA¹

CONTEXT

Australia has garnered international prominence in recent years for its strong showing on the Program for International Student Assessment (PISA) in relation to other Organisation for Economic Co-operation and Development (OECD) countries. In 2010, for example, Australia ranked sixth among more than fifty countries in reading, seventh in science, and ninth in mathematics. The Education Index, published with the United Nation's Human Development Index in 2008, ranked Australia among the highest in the world—tied for first with Denmark and Finland—based on the adult literacy rate and combined ratio of primary, secondary, and tertiary enrollments in 2006.

Federal and State Roles in Australian Education

Education in Australia is primarily the responsibility of the six states and two territories. Unlike the education systems in the United States and Canada, where there is a prominent role for substantially autonomous local school districts, in Australia, the administration of schools is managed at the state level, even for large cities like Melbourne.

Each state or territory government provides funding and regulates the public and private schools within its governing area. There are many commonalities across states, but there are also differences among jurisdictions in school structure, starting ages, curriculum and assessment, and human resource policies.

The federal government helps to fund the public universities, but until quite recently has not been much involved in primary or secondary education. The Australian government (Commonwealth or federal government) is playing an increasingly important role in school funding (especially nongovernment schools) and has been encouraging common approaches to curriculum, assessment and reporting, and teaching standards. As of 2012, states have begun to adopt a new Australian National Curriculum, and there has been more federal engagement and cross-state collaboration on educational issues.

The Council of Australian Governments (COAG)—an intergovernmental agency made up of the prime minister, state and territory premiers and chief ministers, and the president of the Australian Local Government Association—has focused increasingly on education issues. Teacher quality is one area that all ministers have developed some consensus about by endorsing the National Professional Standards for Teachers. Governments have agreed to establish national accreditation of initial teacher–education programs and endorsed the elements of the teacher registration that will become nationally consistent. A new nationally recognized pay-for-performance framework is being developed and is scheduled to be introduced in 2013.

In addition, in 2008 all education ministers in the states and territories endorsed the Melbourne Declaration on Educational Goals for Young Australians. This agreement was under the COAG umbrella and is aligned

¹ This chapter was developed with contributions from Linda Darling-Hammond and Madlene Hamilton at Stanford University, as well as John Allman and Jim Tangas of the Victoria Department of Education and Early Childhood Development.

with the Ministerial Council for Education, Early Childhood Development, and Youth Affairs (MCEETYA) four-year plan. The MCEETYA plan, which was endorsed in March 2009 by Australian education ministers, outlines key strategies and initiatives that Australian governments will commit to in eight interrelated areas in order to support the achievement of the educational goals for young Australians. These eight areas are:

- developing stronger partnerships
- supporting quality teaching and school leadership
- strengthening early childhood education
- enhancing middle years development
- supporting senior years of schooling and youth transitions
- promoting world-class curriculum and assessment
- improving educational outcomes for Indigenous youth and disadvantaged young Australians, especially those from low socioeconomic backgrounds
- strengthening accountability and transparency

The Australian Education System

Australia has a large and growing nongovernment education sector with a high degree of autonomy. In 2011, about 35 percent of students were enrolled in nongovernment schools, up from 29 percent in 1995. The Australian Bureau of Statistics reports that in 2011, there were 9,435 schools serving 3.54 million primary and secondary students in Australia. Of these, 6,705 were government schools (71 percent), 1,710 were Catholic schools (18 percent), and 1,020 were Independent schools (11 percent). Twenty-four percent of these schools were located in the state of Victoria.

One-third of the Australian population are either first- or second-generation immigrants, and 15 percent of the population speaks a language other than English at home. The share of immigrants in Melbourne is much larger: nearly half of all students. About 5 percent of Australian students are Aboriginal or of Indigenous descent, but the population varies greatly, from 40 percent in the Northern Territories to just 1 percent in Victoria schools.

All nongovernment schools receive some public funding, the amount of which depends on the socioeconomic status of their student population. (On average, Catholic schools receive 75 percent of their funding from public sources, and independent schools receive 40 percent).

Government schools' teachers are generally employed by the central State or Territory Education Department, and salaries and working conditions are fairly standard. Some states have local school involvement in teacher selection, especially for senior positions. Nongovernment schools' teachers are generally employed by the school, although often under a common award. Teaching is highly unionized, especially among government-school teachers. The teaching staff across schools in Australia increased by 17 percent between 2001 and 2011 (from 249,629 to 290,854), with 64 percent working in government schools and 36 percent working in nongovernment schools.

The Victoria Education System

Victoria is the smallest in land area and the second largest in total population. The student population has also increased over the years. In government schools in particular it has increased from 538,116 in 2008 to 546,435 in 2012.

School Type	Government			Catholic		Independent		All Schools	
	2010	2011	2012	2010	2011	2010	2011	2010	2011
Primary	306,684	309,092	315,029	101,554	103,544	47,045	48,525	455,285	461,162
Secondary	223,414	221,728	219,754	89,192	90,259	73,808	74,109	386,414	386,097
Special ²	9,562	9,989	10,342	210	304	396	485	10,168	10,779
Language ³	1,253	1,182	1,309	0	0	0	0	1,253	1,182
Total	540,914	541,992	546,435	190,957	194,108	121,250	123,120	853,121	859,221
% of All Schools	63.4	63.1	--	22.4	22.6	14.2	14.3	100.0	100.0

Source: Summary Statistics Victorian Schools, February 2012

In 2012, the Victoria Department of Education and Early Childhood Development (DEECD) reported that there were 2,238 schools in the state. The majority (1,537) were government schools, 486 were Catholic, and 215 were independent schools.

A Glimpse at Melbourne

Melbourne, the capital of the state of Victoria, had a population of just over 4.1 million in 2011. Nearly 37 percent of its residents were born overseas, with those from England, India, China, Italy, and New Zealand topping the list; 58 percent had at least one parent who was born overseas. More than one hundred languages are spoken by the city's residents. The most common languages other than English are Greek, Italian, Mandarin, Vietnamese, and Cantonese.

Melbourne schools are governed by the Victoria DEECD. There are 1,273 schools in Melbourne, most of which are government schools. Catholic schools are the next largest group, followed by independent schools. Schooling in Victoria is compulsory for children between the ages of six and seventeen. The official age limit was increased from sixteen to seventeen in 2011.

² Special schools provide educational programs for students with mild, moderate, and profound intellectual disabilities associated with physical, social, emotional, behavioral, multiple, and sensory impairments.

³ Language schools cater to new-arrival students who are from language backgrounds other than English (LBOTE). Students receive a full-time intensive English-language program prior to enrollment in a regular school. The aim is to teach students the language and learning skills to successfully meet the educational demands of schooling and to prepare them for participation in the wider school community.

Unlike many cities in the United States, where teaching is less attractive because costs of living are higher and salaries are lower than in surrounding suburbs, teaching in a city like Melbourne is generally more attractive than in the outlying areas: Even if housing costs may be somewhat higher, salaries are comparable, and schools are as well supported as in the outlying areas. Furthermore, there are advantages associated with living in the city, with respect to family and social support structures, culture and entertainment opportunities, infrastructure, and career opportunities. The city is also the hub of teacher production, since most of the major universities are there, so more teachers are trained in city schools and expect to teach there.

As a result, the proportion of difficult-to-fill vacancies in nonmetropolitan Victoria is higher and numbers of applicants is lower than in Melbourne. If there are particular challenges of teaching in Melbourne, they are associated with the greater demographic diversity in many neighborhoods. The proportion of non-English speaking people in metropolitan Melbourne is much higher than in nonmetropolitan Victoria. Teachers must be prepared to work effectively in a linguistically and culturally diverse context. An additional challenge is to recruit and prepare a teaching workforce that reflects the demographic makeup of the general population. The 2010 Australia Staffing Survey indicates that in 2009 about one-quarter of the estimated Australian population was born overseas, as compared to only about 15 percent of the teacher workforce.

Trends in the Teacher Workforce

In 2011, a total of 88,093 full-time equivalent (FTE) staff were employed in Victorian schools: 53,543 in government schools, 18,053 in Catholic schools, and 16,497 in independent schools. Of these, 74.3 percent were teaching staff. The proportion of teaching staff was slightly higher in Catholic schools (74.8 percent) and lower in independent schools (69.5 percent). Total FTE teaching staff in government schools increased from 36,304 in 2001 to 39,758 in 2011, while FTE nonteaching staff increased from 9,147 to 13,785.

The average class size in government schools has decreased since 2007 from 22.3 students to 22.1 students in primary schools, and from 21.6 to 21.4 in secondary schools. In 2011 Victoria's student-teacher ratio in government schools was 15.4:1 in primary schools, about the same as the national average, and 11.7:1 in secondary schools, below the national average of 12.2.

Other trends affecting teaching are associated with the growing expectations of teachers for enabling higher levels of learning for students. The government notes that young Victorians require an increasing complexity of skills and capabilities in order to prosper in the workplace and society. This has implications for the changing role of teaching and the need for twenty-first-century skills and modern teaching approaches.

Furthermore, there are growing concerns about the effectiveness of educators. According to the Victoria DEECD, there have been three waves of reform. The first wave, which started in the 1990s, involved policy changes to decentralize educational, financial, and management responsibilities to the schools. The second wave occurred in the 2000s and involved capacity building of leaders and teachers and development of school-improvement models. The state is currently in what is called a third wave of reform, which is focused on effective schools, effective teaching, and effective leadership. These trends influence teacher preparation and development, as well as evaluation.

RECRUITING TEACHERS

Victoria's 2010–2011 Teacher Supply and Demand Report (DEECD 2012) notes that while there is an overall balance between supply and demand of teachers, Victorian government schools particularly need qualified teachers in early childhood education, due to the effects of new government reforms, and in secondary school, where enrollments are rising. Special-education teachers and primary teachers with qualifications in languages, physical education, or music are in demand, particularly in rural areas, and teachers are needed for certain locations where supply is lower. While there are these needs, there is also a noticeable number of teacher graduates (just over 20 percent) who are seeking employment who do not find a job immediately.⁴

Over the last half decade, the DEECD and other analysts have raised a number of recent concerns about teacher recruitment in Victoria. Some of the key issues include the following:

- The teaching workforce is aging, with a large proportion expected to retire in the next ten to fifteen years. In 2009, over 50 percent of teaching staff in government schools in Victoria were forty-five and over (DEECD 2012).
- There are shortages of teachers in secondary education, as well as in math, science, special education, physical education, technology, and languages (DEECD 2012).⁵ Internationally, studies show that graduates in math and science have the potential to earn significantly more than other graduates in the job market, yet often, teacher salaries are the same for all subject areas. In Victoria, however, principals have a range of options to increase rewards for performance, attraction, and retention, including the use of differential pay. Although there have been shortages of teachers in math and science, and it has been shown that the quality of candidates in these fields is much lower (Whelan 2009), Victoria has seen some reduction of shortages in recent years.
- Certain geographic areas across Victoria continue to experience difficulty recruiting teachers, particularly in the north and far west, as well as growth corridors in Melbourne's urban fringe (DEECD 2012). The extent of this difficulty has decreased in the last three years. Low socioeconomic status (SES) schools also report greater recruitment and retention difficulties.
- Teacher salaries became less attractive in relation to other professions during the past decade than they were in the 1980s (Leigh and Ryan 2006). There was a decline in average teacher pay relative to nonteacher salaries, as well as a rise in the pay differential of alternative occupations.
- Data from the Victorian Institute of Teaching (VIT) indicate that scores for undergraduate entrants into teacher education on the Australian Tertiary Admissions Rank (ATAR) dropped in each year from 2004 until 2011 (from 72.58 to 67.53 overall). While this suggests less selectivity in admissions, the significance of this trend is not entirely clear, since not all undergraduate pre-service teacher-education courses use ATAR scores as a selection criterion at course entry, and more than half of new teachers in Victoria now come from graduate-level programs that do not require ATAR scores for course entry, as these candidates have already completed an undergraduate degree in a discipline other than teaching (DEECD 2012).

⁴ In 2011, out of graduates of initial teacher training who were available for full-time employment, 77.6 percent found full-time employment. <http://www.graduatecareers.com.au/Research/GradJobsDollars/AllLevels/Law/index.htm>.

⁵ The difficult-to-fill vacancy rate may be higher than reported due to the use of 'out-of-field' teaching in schools to address teacher shortages in certain subject areas.

While these issues have emerged in recent years, there have also been a series of policies to address these concerns, and evidence suggests that strong headway has been made. For example, the 2010–2011 Teacher Supply and Demand Report notes a strong increase in interest in teaching:

- Interest in undertaking undergraduate teacher-education courses is strong, with first-year enrollments increasing from 3,301 in 2010 to 4,272 in 2011.
- Interest in undertaking a graduate entry teacher course in Victoria is also strong, with total enrollments of 3,351 in 2010.
- Final-year enrollments in these initial teaching courses are increasing, totaling 5,223 in 2010 and 5,662 in 2011 (a ten-year high).
- In 2010 nearly 80 percent of graduate entry teaching course graduates were employed as teachers, compared with 68 percent of undergraduate teaching course graduates.

Salaries and Recruitment Incentives

In Victoria, all teachers in government schools are subject to the same salary and career structure; this also sets a benchmark for Catholic schools and, to some extent, independent schools.

Nationally, initial salaries for teachers are recalibrating to become more comparable to those in other professions. The most recent data from Graduate Careers Australia⁶ shows that the median salary for newly trained teacher graduates from all degree levels was \$54,000,⁷ while the median salary for all fields was \$53,000. As shown in the table below, teaching compared favorably to many other professional degrees. Although starting teacher salaries are relatively high in comparison to other professions, the salary ceiling, at \$84,000, is not comparable to the advancement opportunities in many professions.

Median Salary for Graduates from All Degree Levels	
Nursing	\$49,300
Business Studies	\$52,000
Computer Science	\$53,000
Chemistry	\$53,000
All Fields	\$53,000
Teaching	\$54,000
Law	\$55,000
Civil Engineering	\$57,000
Electrical Engineering	\$60,000

⁶ <http://www.graduatecareers.com.au/Research/GradJobsDollars/AllLevels/Law/index.htm>

⁷ All dollar amounts are for Australian dollars.

The Victorian government has also been assertive in putting incentives into place to support the training and hiring of teachers in high-need fields. Among these are the following:

- The Science Graduate Scholarship,⁸ with benefits of up to \$11,000, is available to Australian students who have qualified in a science-related area and are starting an approved pre-service teacher-education program. A total of four hundred scholarships for graduate entry teaching study will be awarded over four years beginning in 2012.
- The Graduate Pathways Scholarship⁹ provides up to eighty scholarships of up to \$10,000 for graduates with language, information technology, mathematics, or science qualifications who started a teaching program in 2011 or 2012. Graduates are encouraged to teach in Victorian government schools.
- The Teaching Practicum Scheme¹⁰ provides financial incentives in the form of stipends and travel reimbursements to student teachers to undertake practicum placements in Victorian government rural and outer-metropolitan schools.
- The Teaching Scholarship Scheme¹¹ is a recruitment initiative aimed at assisting schools that have had difficulty attracting high-quality teacher graduates. Recipients receive scholarship payments during their final year of training tied to employment offers immediately thereafter, plus retention bonuses. Payments must be refunded pro rata if candidates fail to complete at least two years of employment.

It should be noted that these subsidies are in addition to existing supports for teacher-education candidates. In Australia, most teacher-education students attend college in “Commonwealth supported” slots. In 2012, the Commonwealth subsidy for teacher education was about \$9,000 per student (Mayer, Pecheone, and Merino 2012).

The Victoria government suggests that education must be made attractive by adopting practices such as merit-based remuneration, reward for effort, peer collaboration, recognition of the power to make a difference in children’s lives, a focus on performance management and development, and greater flexibility to move into and out of the profession. Part of the government’s approach centers on raising the bar of expectation by preparing teachers while in pre-service and setting the bar of entry at high standards.

⁸ <http://www.education.vic.gov.au/about/careers/teaching/Pages/scholarshipscience.aspx>

⁹ <http://www.education.vic.gov.au/Documents/about/careers/teaching/gradpathfaq.pdf>

¹⁰ <http://www.education.vic.gov.au/Documents/about/careers/teaching/infosheetpracticum.pdf>

¹¹ http://www.eduweb.vic.gov.au/edulibrary/public/hr/recruit/Teach/Information_Sheet-_Teaching_Scholarship_Scheme.pdf

PREPARING TEACHERS

Teachers may prepare in both undergraduate- and graduate-level programs; the latter have typically been one-year certificate programs. About 20 percent of the graduates from education programs in Australia come from Victoria—roughly 3,600 in 2010. The largest provider of teachers in Victoria in that year was Monash University (888), followed by Deakin University (807), La Trobe University (651), the University of Melbourne (487), University of Ballarat (307), Victoria University (269), and Royal Melbourne Institute of Technology (RMIT) University (167).

These programs are governed by the standards and regulations of the Victorian Institute of Teaching (the Institute, or VIT), established in 2001 as the regulatory body for the teaching profession.¹² The Institute is governed by a twelve-member council, the majority of whom are practicing teachers from government, Catholic, and independent schools. It does the following:

- registers all teachers to ensure that only qualified people are employed in Victorian schools
- works with teachers to develop standards of professional practice
- supports teachers in their first year of teaching with a structured induction program
- approves and accredits pre-service teacher-education courses
- investigates and makes findings on instances of serious misconduct, misconduct, serious incompetence, or lack of fitness to teach.

The Institute established the Future Teachers Project to do the following:

- develop new professional standards for graduating teachers
- review and develop committee guidelines for the accreditation of courses
- review and develop the committee process for the accreditation of course

The standards of professional practice, developed by teachers for teachers, describe the characteristics of effective teaching and establish the professional knowledge and skills teachers should learn and display.¹³ These standards guide the design and accreditation of teacher-education programs.

Innovations in Preparation

Victoria is implementing a number of ambitious initiatives that are leveraging change in the design and delivery of pre-service teacher education, with the goal of strengthening clinical preparation and creating stronger connections between theory and practice.

The School Centres for Teaching Excellence (SCTE) is the centerpiece of Victoria's teacher-education reform initiatives and includes seven university-school clusters comprising six universities and fifty schools, some of which have multiple campuses. The clusters are funded by the National Partnership for Improving Teacher Quality. Clusters receive approximately \$150,000 to \$250,000 over two years.

¹² <http://www.vit.vic.edu.au/aboutus/Pages/default.aspx>

¹³ <http://www.vit.vic.edu.au/standardsandlearning/Pages/professional-standards.aspx>

Standards of Professional Practice for Full Registration

Professional Knowledge			Professional Practice			Professional Engagement	
1 Teachers know how students learn and how to teach effectively.	2 Teachers know the content they teach.	3 Teachers know their students.	4 Teachers plan and assess for effective learning.	5 Teachers create and maintain safe and challenging learning environment.	6 Teachers use a range of teaching practices and resources to engage students in effective learning.	7 Teachers reflect on, evaluate, and improve their professional practice.	8 Teachers are active members of their profession.

Characteristics of Effective Practice for Student Learning

<p>Teachers draw on the body of knowledge about learning and contemporary research into teaching and learning to support their practice.</p> <p>Teachers know the importance of prior knowledge and language learning and the impact of discussion, group interaction, and reflection in the learning process.</p> <p>Teachers know how to engage students in active learning.</p> <p>Teachers know how classroom and program design, use of materials and resources, and the structure of activities impact learning.</p>	<p>Teachers have a sound, critical understanding of the content, processes, and skills they teach.</p> <p>Teachers can articulate the key features and relevance of their content to their students and others, and can demonstrate how it is applied.</p> <p>Teachers know the methodologies, resources, and technologies that support learning of the content, processes, and skills they teach.</p> <p>Teachers are familiar with curriculum statements, policies, materials, and programs associated with the content they teach.</p>	<p>Teachers know the learning strengths and weaknesses of their students and are aware of the factors that influence their learning.</p> <p>Teachers are aware of the social, cultural, and religious backgrounds of the students they teach, and treat students equitably.</p> <p>Teachers develop an understanding and respect for their students as individuals and are sensitive to their social needs and the way they interact with others.</p> <p>Teachers know the importance of working with and communicating regularly with students' families to support student learning.</p>	<p>Teachers use their knowledge of students, content, and pedagogy to establish clear and achievable learning goals for their students.</p> <p>Teachers plan for the use of a range of activities, resources, and materials to provide meaningful learning opportunities for all their students.</p> <p>Teachers monitor student engagement in learning and maintain records of their learning progress.</p> <p>Teachers select assessment strategies to evaluate student learning, to provide feedback to students and their parents/guardians, and to inform further planning of teaching and learning.</p>	<p>Teachers develop a positive learning environment where respect for individuals is fostered and where learning is the focus.</p> <p>Teachers provide a learning environment that engages and challenges their students and encourages them to take responsibility for their own learning.</p> <p>Teachers use and manage the materials, resources, and physical space of their classroom to create a stimulating and safe environment for learning.</p> <p>Teachers establish and maintain clear and consistent expectations for students as learners and for their behavior in the classroom.</p>	<p>Teachers communicate effectively with students to make their learning programs explicit, to build rapport, and to support their learning.</p> <p>Teachers provide and manage opportunities for students to explore ideas and develop knowledge and skills through discussion and group activities.</p> <p>Teachers use and manage a range of teaching and learning strategies, technologies, activities, and resources.</p> <p>Teachers provide meaningful feedback to students and their parents/guardians about their developing knowledge and skills.</p>	<p>Teachers regularly reflect on and critically evaluate their professional knowledge and the effectiveness of their teaching.</p> <p>Teachers work collaboratively with other members of the profession and engage in discussion of contemporary issues and research to improve professional practice.</p> <p>Teachers identify their own professional learning needs and plan for and engage in professional development activities.</p> <p>Teachers develop organizational and administrative skills to manage their nonteaching duties effectively.</p>	<p>Teachers contribute to the development of school communities that support the learning and well-being of both students and fellow teachers.</p> <p>Teachers work effectively with other professionals, parents/guardians, and members of the broader community to provide effective learning for students.</p> <p>Teachers promote learning, the value of education, and the profession of teaching in the wider community.</p> <p>Teachers understand and fulfill their legal responsibilities and share responsibility for the integrity of their profession.</p>
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The SCTE was developed in consultation with a range of education stakeholders, including Victorian universities, the Victorian Institute of Teaching, and principal and teacher associations, to address the quality of in-school clinical placements for pre-service teachers. It also stemmed from research on pre-service education approaches across several countries—research that emphasizes the importance of longer-term in-school practicum placements for pre-service teachers and the close integration of these placements with teacher-education courses.

The SCTE forms pre-service teacher training partnerships among clusters of schools, universities, and regional offices for the trial and evaluation of new approaches. The projects do the following:

- open up opportunities for joint planning and delivery
- develop a more “immersive” or “residency” model, typically two days a week in schools under changed arrangements
- build the capability of the teaching profession to mentor and support trainees
- achieve better alignment between practical experience and university course content, including options for onsite lecturing, introducing school based research, and linking course content with school or regional priorities, such as literacy

An independent evaluation of the SCTE by the Australian Council for Educational Research is currently under way, and the findings will be made available midyear 2013. Preliminary findings provide an encouraging picture, including the following:

- *Partnerships and collaboration*: Relationships and communication between school and university educators have been strengthened by the increased contact that occurs in site-based models and by the presence of university staff in schools. This has resulted in significant changes to practicum arrangements and university course content, as well as enhanced and strengthened school curriculum.
- *Practicum models*: The SCTE model has enabled the development of onsite, practice-oriented models of teacher education, with greater emphasis on pre-service participation in the life of the school. A typical pattern for the practicum is an extended period (often a semester), in which pre-service teachers spend at least two days per week in a school, followed later by a more traditional block placement of three or four weeks. Pre-service teachers are often invited to faculty and learning team meetings and are given the opportunity to consider policy and school focus areas. Placements of teams of pre-service in a school provides greater opportunity for mutual support.
- *Mentoring*: Professional collaboration among teachers in schools has improved as result of new “mentoring cultures” that have developed out of SCTE mentoring initiatives. The team emphasis has allowed more collaborative models beyond the traditional teacher-supervisor role, where one supervising teacher is paid for the supervision of one pre-service teacher. The role of “expert mentor” has also been introduced on some sites.
- *Course quality and design*: The school–university relationship enables courses to be designed with close connections to practice and tailored to local circumstances, such as rural needs, ethnic diversity, and socioeconomic disadvantage. Team teaching and integrated curriculum in schools are reflected in course arrangements, with pre-service teachers also working in teams and on team projects; this has had positive effects on school curriculum. In some of these partnerships, teams of teachers worked on course development and delivery with teams of pre-service teachers. Some pre-

service teacher assessment focused on this work; e.g., practicum presentations and presentations of curriculum projects.

- *Assessment Quality*: Within SCTE programs, assessment of practicum performance has largely become a team exercise, with teams of mentors conferring in various ways to assess the performance of teams of pre-service teachers. The assessment of practicum in SCTE programs is typically based on better information and greater consultation than in the past.

Another ambitious initiative to strengthen the clinical preparation of teachers is the development of the Charles La Trobe Teaching School. As part of an agreement between the DEECD at Charles La Trobe P-12 College and the teaching faculty at La Trobe University, the new partnership is designed to simultaneously enhance the preparation of pre-service teachers and the continuing professional development of the school staff, as well as to support research to improve educational outcomes. The initiative will fully redesign the Charles La Trobe College (CLTC) teacher-education program and introduce a school-based internship in which pre-service teachers spend at least three days a week in a residency model of teacher training in the school, plus block assignments. Faculty members will work in the school alongside mentor staff; advanced technology will facilitate new models of demonstration, observation, and critique; and new teachers will learn evidenced-based clinical practice through an inquiry approach to preparation.

It is planned that, at full scale, the initiative will include approximately fifteen schools, with CLTC as the presumptive space for all graduate diploma students in the La Trobe education faculty. Pre-service teachers will be able to cycle through these schools and experience consistency in training in clinical practice along with variety in the range of schools. The partnership will build a strong research capability to expand the evidence base for effective teaching and learning and link pre-service education more effectively with “what works” data bases.

Finally, the University of Melbourne’s new Master of Teaching model, initiated in 2008 as the university moved from largely undergraduate- to graduate-level programs, now enrolls over 1,200 candidates in early childhood, primary, and secondary teacher-education programs. Launched in partnership with the DEECD; the Department of Education, Employment, and Workplace Relations (DEEWR); and the Catholic Education Office in Victoria, the two-year Master of Teaching, designed as a research-based clinical program, is a significantly different approach from that used in most universities in Australia. The model was influenced in part by the Teachers for a New Era program in the United States, which sees teaching as a clinical-practice profession like many health professions (Davies et al. 2012).

The program integrates master’s-level academic study with practical work in collaborating partnership schools. It is designed to develop graduates who have the professional capabilities to meet the needs of individual learners through the use of data to plan and implement teaching interventions. Building on a strong foundation of curriculum, assessment, learning, and teaching, candidates learn to:

- gather evidence about what a learner knows now and what they are ready to learn next
- create appropriate learning strategies to take the learner to the next level of knowledge
- use evidence-based teaching interventions
- evaluate the impact of their decisions on the students’ learning

Rather than short blocks of school experience separated by long periods away from the school, candidates are in schools two days a week each semester, with university-based “clinical specialists” and school-based “teaching fellows” working together to support practice and professional seminars. All courses are connected to the practicum experience. The weekly school experience is supplemented with three weeks of full-time teaching practice during each semester. These tight connections are made possible through school–university partnerships that function like teaching hospitals for medical students.

As one sign of the improved outcomes made possible by this model, the Australian Council for Educational Research found, in an external evaluation of the Master of Teaching Primary and Secondary in 2010, that 90 percent of graduates felt “well or very well” prepared for their first teaching role (Scott et al. 2010). This figure is well above the 40 to 45 percent of new teachers in Australia who answered in a 2008 survey that they felt they were well or very well prepared for their first teaching role (Australian Education Union 2009).

There is also early evidence that the Master of Teaching graduates have higher rates of employment, stronger career commitment, and lower attrition. Principals report that graduates have had a significant impact on schools’ educational programs. Many partnership schools are now working with the university to involve more of their teachers in the model, so as to support whole-school change through an evidence-based approach. The University of Melbourne is now aligning its school leadership programs to follow a similar model, philosophy, and impact.

Preparation Options for Career Changers

Australia has several alternative pathways into the profession to attract individuals from other careers into teaching, often to fill difficult-to-fill vacancies. The Career Change Program¹⁴ is a recruitment initiative aimed at assisting schools that have had difficulty in attracting suitably qualified teachers to fill vacancies. It targets individuals who have undergraduate degrees or who are trade certified with relevant qualifications and experience, especially in priority subject areas. The program enables recipients to complete an approved course of training with the expectation of ongoing employment in their training school upon successful completion of the program.

Recruits receive on-the-job training over two years, including one day of study leave per week to complete pre-service course requirements. Trainees are paid a salary and a grant to cover course and incidental costs during the training period. The Career Change Program targets people with current industry knowledge and expertise who would make excellent teachers in the targeted subject areas, such as math, science, technology, information technology, and music.

Victoria will also be participating with other states in a new Commonwealth government’s initiative called Teach Next.¹⁵ Similar to the Career Change Program, it gives highly skilled and experienced professionals the chance to achieve a teaching qualification while earning a salary and working in Australian schools. The participants are undertaking an approved pre-service teacher-education course. Their mentors, appointed by the school, are highly experienced teachers able to provide guidance, advice, and support. Teach Next is intended to address areas of teacher shortages in regional and hard-to-staff schools and to

¹⁴ <http://www.education.vic.gov.au/careers/teaching/incentives/ccp.htm>

¹⁵ <http://www.education.vic.gov.au/careers/teaching/incentives/ccp.htm>

reduce the number of teachers currently teaching outside their subject areas, including in fields like math and science.

Besides the programs discussed here, people from another profession can apply to undertake a mainstream graduate pre-service teacher-education program and complete it as a part-time or full-time student. Many do so, and the average entry age of new teachers is now twenty-seven, indicating that a substantial number enter their training after they have been in the job market for a while.

Feedback to Schools of Education

The Victoria Department does not have a systematic mechanism for feedback to schools of education. However, the Australian Government Department of Education, Employment, and Workplace Relations (DEEWR) commissions a periodic survey of Staff in Australia's Schools (SiAS). The resulting report provides an overview of the teacher population in Australia, as well as data on their current positions, professional learning activities, career paths in teaching, future career intentions, views on teaching and leadership, school staffing issues, and the teacher appraisal system. Although the results are not specific to the institutions, they provide a general overview of the areas that teachers feel strongly about and identify some general strengths and weaknesses in their training.

Overall, the assessment was more positive in 2010 than in 2007. Among the highlights were the following:

- Over three-quarters of early career teachers felt that their teacher-education course of study had been helpful or very helpful in preparing them for “developing and teaching a unit of work” and “reflecting on my own teaching practices.”
- About two-thirds also assessed their course highly on “teaching the subject matter I am expected to teach” and “working effectively with other teachers.”
- Higher proportions of primary teachers rated their course highly on developing student literacy (61 percent) and numeracy skills (65 percent), compared to secondary teachers (21 percent and 30 percent, respectively).
- In most areas, about 15 to 30 percent of teachers felt that they needed more opportunities for professional learning. The area of greatest need for primary teachers was “methods for assessing student learning and development” (45 percent), followed by “effective methods for engaging students in the subject matter” (38 percent), which was the greatest need for secondary teachers (45 percent).

MENTORING AND INDUCTION

All graduate teachers are provisionally registered for up to two years. In order to become fully registered, new teachers must meet the standards of professional practice, described earlier. During the initial two years, the Victorian Institute of Teaching supports the development of practice with the following:

- after-school seminars
- materials to guide the evidence-based process for full registration
- school-based induction with a focus on mentoring¹⁶

The DEECD outlines a detailed process for induction, organized in three major phases: pre-commencement, laying foundations, and continuing professional growth.¹⁷

- *Pre-commencement* takes place before the teacher begins teaching. It includes an orientation, which is a formal introduction to the profession, the employer, and the workplace. During pre-service training, teachers visit the school to attend curriculum days and planning sessions. They are assigned an initial support person (a “buddy”) for the purpose of orientation during the first weeks of employment. Once hired, teachers meet with the principal and tour the school and/or classroom, review job and full registration requirements, and discuss general employment conditions. They also receive their grade/class allocation and timetable, which includes at least 5 percent reduced scheduled duties over the school week in first twelve months. They meet their buddy, identify immediate induction needs, and work with buddy in the classroom provided.
- While *laying the foundations* during the first six weeks on the job, teachers continue to develop their craft. Activities may include daily contact with school leadership and daily discussions between buddy and teacher to identify immediate needs; shadowing and other opportunities to observe other teachers’ lessons; regular sessions organized for new teachers to meet and share common experiences, collaborative curriculum-planning opportunities, support networks (where needed) for skill development (e.g., classroom-management skills); and access to professional learning.
- *Continuing professional growth* is designed to respond to the individual professional learning needs of the teacher. A mentor is assigned at week six, and formal regular meetings between mentor and mentee begin. These focus, in part, on identifying needs and supporting growth in relation to the standards of professional practice. Teachers have additional opportunities to observe classrooms with a focus on developing teaching practice; opportunities for professional dialogue with peers; collaborative planning time; and access to professional learning opportunities, including institute forums.

The earlier cited Staff in Australia’s Schools (SiAS) survey found that the most commonly provided form of assistance for primary teachers in 2010 was “a designated mentor” (79 percent); for secondary teachers, it was “an orientation program designed for new teachers” (84 percent). Both forms of assistance were

¹⁶ http://www.vit.vic.edu.au/SiteCollectionDocuments/PDF/Annual%20Report/VIT%20AR10-11_FINAL.pdf

¹⁷ <http://www.education.vic.gov.au/proflearning/teacher/inductguide.ht>

rated as helpful or very helpful by most early career teachers. An additional form of assistance, “observation of experienced teachers teaching their classes,” was also provided to 72 percent of primary and secondary teachers, and around three-quarters rated this assistance highly.

Generally, mentor support is provided for the new teacher’s first year. However, it is expected that mentor support be provided for as long as the teacher needs it. Evidence required for the full registration process includes documented feedback provided by the new teacher’s mentor. This feedback is provided through a process that includes direct observation with pre- and post-discussions. This supports purposeful observation, which can take place through team teaching and through direct observation of the teacher.

While the VIT standards frame the purpose for the observation, schools are also using the e⁵ Instructional Model,¹⁸ launched in 2009, to assist in identifying the focus of the observation as well as the feedback, and to guide professional development.



Selection and Training of Mentors

Selection of mentors is a school-based decision. The selection is generally based on selecting mentors with similar teaching areas (subject or class) to the new teacher(s) being served. Other factors taken into consideration are proximity, experience, and expertise. Familiarity with the VIT registration process is also considered. In some cases the selection of mentors takes place once beginning teachers have commenced teaching. This enables the beginning teacher to have some say in who will play the part of mentor.

¹⁸ <http://www.education.vic.gov.au/school/teachers/profdev/Pages/pastonlinesordello.aspx>

The Victoria DEECD lists tips for effective mentoring that incorporate the expectation for a content- and grade-level match between mentor and mentee, high levels of competence on the part of the mentor, and a process that includes the following:

- goal-setting,
- regular meetings with the mentee,
- the use of an instructional model (for example, e⁵) that supports teacher practice in response to student needs,
- opportunities for team-teaching, shadowing and observing, learning from and with others, and reflecting on practice,
- confidentiality that supports mutual trust,
- the use of probing questions,
- building a collaborative network.¹⁹

The Teacher Mentor Support Program²⁰ is a voluntary, joint initiative of the DEECD and the Victorian Institute of Teaching (VIT). The program is run as two one-day workshops that enable participants to develop an understanding of the skills needed to mentor teachers new to the profession. Activities allow participants, in their role as mentors, to explore how they can support beginning teachers to improve their teaching practice. An outcome of effective mentoring is the attainment of full VIT registration.

Retention of Beginning Teachers

Specific figures are not available to describe the attrition rates of beginning teachers in Victoria. During 2010, 1,940 (5.4 percent) of all teachers left ongoing positions in Victorian government schools, not including teachers on fixed-term contracts (DEECD 2012). It is quite certain that attrition rates for beginning teachers are higher than this figure, for at least two reasons. First are the historically higher rates of attrition for beginners as they adjust (or do not adjust) to teaching. Second, the official attrition rates exclude teachers on fixed-term arrangements, who have much higher attrition rates and who comprise one in five teachers in Australia and an even larger share of the beginning teacher workforce.

As Plunkett and Dyson (2011) note in their study of beginning teachers in rural Victoria:

An issue that has received little attention in the research is the current system utilised in many Australian Education Departments, involving a contract system whereby the employment of new teachers is mainly based on short term contracts (usually 12 months but can be as short as one school term). Contract teachers have no permanency—they are forced to repeatedly apply for their jobs....The one in five teachers who are employed on a contract ... are leaving the profession at a much higher rate—why should they stay? The situation with regard to graduate positions is even more alarming with recent figures illustrating that less than one-third (29.3 percent) of appointments under the Graduate Recruitment Program for Government schools in 2008 were for ongoing positions, and over half of all appointments were 1 year contracts (p. 35).

¹⁹ http://www.eduweb.vic.gov.au/edulibrary/public/staffdev/teacher/Mentoring_Beginning_Teachers.pdf

²⁰ Victoria Department of Education and Early Childhood Development. Mentoring Beginning Teachers Information for Schools. http://www.eduweb.vic.gov.au/edulibrary/public/staffdev/teacher/Mentoring_Beginning_Teachers.pdf.

The teachers interviewed for this study—recruited for high-need schools but hired primarily on short-term contracts—commented repeatedly that the uncertainty of contract employment deterred them from making plans to stay in teaching and from developing roots in the high-need schools in which they were placed. It appears that this system may work at odds with the goals of the current recruiting and mentoring initiatives. To evaluate how these systems interact, it could be useful for Victoria to evaluate the attrition rates of beginning teachers by the types of schools they serve, the kinds of preparation and mentoring they have received, and their contract status.

PROFESSIONAL DEVELOPMENT AND EVALUATION

In Victoria, teacher development, evaluation, and career progression are all tied to professional standards of practice. The teacher competency standards that are used encompass the elements of the Victorian Institute of Teaching professional standards of practice, described earlier, and elaborate them in relation to career progression and salary structure. Teachers must satisfy the applicable standards to advance from graduate teacher to accomplished teacher, and from accomplished to expert teacher. (Marshall, Cole, and Zbar 2012). The standards reflect more sophisticated practice with development and the different roles that teachers take on as they become more expert.

The DEECD has sought to frame professional learning and evaluation in a school-wide context through its Performance and Development (P&D) Culture framework (Marshall, Cole, and Zbar 2012). The P&D Culture framework includes five elements that are tied to accreditation levels for schools. These include the extent to which:

- the school provides effective induction and mentoring support
- the school uses multiple sources of feedback to inform individual, team, and collective practice
- individuals have a P&D plan aligned to school goals and informed by feedback
- a professional learning strategy reflects individual, team, and collective development needs
- individuals feel that the school has the internal capacity to engage in ongoing improvement

P&D is a continuous cycle for all employees, commencing May 1 of each year and concluding on April 30 of the following year, in line with the process for members of the principal class, whose assessment depends on data that commonly is not available until that time. The cycle involves the following:

- planning in April/May to prepare and agree on performance plans with the principal
- midcycle review in September/October to discuss the teacher's progress
- assessment in March/April of the teacher's performance against the Victorian professional standards
- performance plans prepared and agreed on with the principal in April/May for the next cycle, and informed by the outcome of the last cycle

Principals are responsible for the assessment for each member of the staff, but others can be involved. P&D does not mandate the type of evidence used for teacher evaluation. Individual schools decide whether and how to use supervisor and peer observation, peer feedback, student feedback, parent feedback, student outcomes, attendance data, and student exit surveys.

At the beginning of the P&D process, professional development needs should be identified to support teacher learning. Proposed P&D may encompass participation in appropriate programs and activities, leading or presenting at P&D programs or activities, opportunities to access the support of a mentor or critical friend, whole-school improvement activities, online training, or professional reading. When they complete their account of their achievements for the year in their performance plan, teachers indicate ways that their learning is being applied. If a teacher does not meet one or more of the professional standards, the supervisor is expected to work with them to identify the factors affecting performance and to support them to improve.

The DEECD makes available a range of professional learning programs and resources for teachers and education support staff, including awards, fellowships, and curriculum-focused professional learning. These are underpinned by the Seven Principles of Highly Effective Professional Learning, which call for professional learning that is collaborative, embedded in practice, and aimed at bridging the gap between students' potential and their current performance (Department of Education and Training 2005).²¹ The seven principles are as follows:

Principle 1: Professional learning is focused on student outcomes (not just individual teacher needs).

Principle 2: Professional learning is focused on and embedded in teacher practice (not disconnected from the school).

Principle 3: Professional learning is informed by the best available research on effective learning and teaching (not just limited to what they currently know).

Principle 4: Professional learning is collaborative, involving reflection and feedback (not just individual inquiry).

Principle 5: Professional learning is evidence based and data driven (not anecdotal) to guide improvement and to measure impact.

Principle 6: Professional learning is ongoing, supported and fully integrated into the culture and operations of the system—schools, networks, regions, and the center (not episodic and fragmented).

Principle 7: Professional learning is an individual and collective responsibility at all levels of the system (not just the school level), and it is not optional.

²¹ <http://www.education.vic.gov.au/school/teachers/profdev/Pages/teacher.aspx>.

The DEECD focuses much of its energy on supports for beginning teachers and for leadership development. For in-service teachers, professional learning opportunities are provided from many other sources, including the many universities in Victoria, the Victoria Curriculum and Assessment Authority,²² and the Australian Government Quality Teacher Programme (AGQTP), which has provided more than 240,000 professional development opportunities for teachers since its founding in 2000. In Victoria, the DEECD AGQTP offerings consist of the following activities:

- school improvement
- building the capacity of professional learning leaders in clusters and schools
- building whole-school approaches/capacity to support students with additional learning needs
- longitudinal evaluation

These efforts encourage school-based professional learning opportunities, such as action research and other inquiry-based approaches in professional learning communities, which are to be designed and orchestrated by local school leaders.

LEADERSHIP DEVELOPMENT

There are two main ways that potential leaders in the Victorian government system have moved into leadership positions. The first has been based on self-identification by potential leaders and on informal mechanisms by which potential leaders are coached and given opportunities to develop within schools. The second builds on the first by providing opportunities for potential leaders to take courses or take part in programs to build their capacity and interest in leadership.

In the near future, Victoria will move toward a third approach, consisting of more proactive guidance of the careers of potential leaders, so that they can undertake targeted leadership development and gain progressively greater leadership experience through new roles taken on within their schools and others. This more systematic and deliberate approach to succession planning will include the early identification and support of high-potential leaders and the development of a management strategy. This approach will “fast track” high-potential leaders into senior school leadership positions, with the ultimate aim to move them into principal class roles.

Succession Planning

Assuring a ready supply of high-quality principals in the future is a problem to which Victoria is not immune. This is a global phenomenon. In Victoria the attrition rate for principals is around 8.6 percent. This figure is expected to increase to around 9 percent per year in the future. At that rate, there will be around 260 new entrants a year into the principal class—135 principal position replacements and 125 assistant principal replacements. The problem is amplified by the fact that fewer teachers are seeking principalship because of the demanding nature and complexity of the work. And while in some cases there may be sufficient numbers of people to assume the principalship, they are often not the quality individuals necessary to enhance teaching and learning.

²² <http://www.vcaa.vic.edu.au/Pages/career/profdev.aspx>

Talent identification and management approach is intended to support more high-potential leaders moving into the principal role. Providing better remuneration for principals and casting the net wider for potential leaders from outside the Victorian system are also being considered.

Leadership Development in the Government Schools Sector

The Office of Government School Education's (OGSE)²³ leadership programs for 2009 were designed to develop the leadership skills of aspiring leaders, including teachers not currently in formal leadership roles. The Learning to Lead Effective Schools program was developed as a system-wide strategy to improve the practice and performance of schools in the government system. This program was based on the theory of action described by Harvard professor Richard Elmore:

The practice of professional development, however focused and wherever enacted, should embody a clear model of adult learning that is explained to those that participate. Those who engage in professional development should be willing to say explicitly what new knowledge and skill educators will learn as a consequence of their participation, how this new knowledge and skill will be manifested in their professional practice, and what specific activities will lead to this learning.

Each school is autonomous and identifies potential leaders and provides development as it sees fit. At a system level, the Bastow Institute of Educational Leadership provides systematic support for new leaders and provides professional development for leaders and aspirant leaders.²⁴ In December 2010, the School Improvement Division of the Department of Education and Early Childhood Development (DEECD) established a Professional Learning Provider Panel through the Bastow Institute (the Bastow Panel).²⁵ The panel was established to accommodate the growing need of teachers to undertake professional learning opportunities. The panel also systematically organizes target groups and key focus areas that providers can tender services to. The seven areas include the following:

- general leadership
- coaching/mentoring
- early childhood
- postgraduate
- well-being and engagement of students
- students with disabilities or additional needs
- teacher practice and educational support

The Bastow Institute offers a range of leadership development courses and activities designed to build the capacity of aspiring leaders. Since 2010, approximately 7,060 individuals have participated in thirty-six Bastow courses. All Bastow courses are developed in accordance with Bastow's Quality Standards for Professional Learning and its Curriculum Development Process (CDP). The CDP is a five-stage process that all courses move through, from scoping and content development (phase 1 and 2) to

²³http://www.eduweb.vic.gov.au/edulibrary/public/staffdev/schlead/ProgramInformation2009/LIES_prog_Information2009.pdf

²⁴ <http://www.education.vic.gov.au/school/principals/profdev/Pages/bastowinstitute.aspx>

²⁵ <http://www.eduweb.vic.gov.au/edulibrary/public/staffdev/DEECDProviderPanel/catflyer.pdf>

evaluation and review (phase 5). The Quality Standards for Professional Learning and CDP ensure that all courses are designed in accordance with accepted principles of effective adult learning. Therefore courses are designed so that participants receive feedback from multiple sources and are provided with ongoing support through mentoring/coaching, peer learning groups, and online collaboration.

Bastow evaluations provide data about the strengths and weaknesses of courses so that they can be improved on an ongoing basis. The independent evaluation of 2011 courses found that more than 90 percent of participants agreed or strongly agreed that they:

- experienced courses with high-quality content, design, and delivery
- acquired new knowledge and skills
- improved their understanding of DEECD frameworks
- increased their confidence and motivation to lead

There is no dedicated principals' preparation course as such. However, there are plans to develop a program dedicated to prepare high-potential leaders for their first principal position. The program will have an explicit focus on leadership and management, leading change, and how to transform schools through people and teams. By partnering with a Victorian higher-education institution, it is hoped that the program will become a formal, nonmandatory principal qualification, and that those who successfully complete the program will be eligible for credits toward a postgraduate degree.

Leadership Development in the Private School Sector

Leadership development is not confined to the government sector of Victorian school education. Both the Catholic and independent school sectors are in the process of further developing and implementing programs to enhance leadership capability. For example, the Catholic Leadership Centre will be opened by the Catholic Education Office (CEO), Archdiocese of Melbourne, in East Melbourne in 2013. The Center will deliver accredited master courses in Catholic leadership and professional development for teachers in the Catholic sector, including a Master of Leadership delivered by Australian Catholic University (ACU). The center will also offer an executive MBA, through the Australian Catholic University, targeted at experienced leaders in education who would benefit from higher-level academic study. The fee structure will be at a 30 : 30 : 30 ratio for individuals, schools, and system.

Independent Schools Victoria (ISV) has a similar focus on building leadership, with a highly regarded Development Centre that provides leadership programs ranging from seminars for early-years educators to master classes facilitated by international experts. The new principals' course includes a residential program and opportunities to interact with experienced principals. For more experienced principals, a number of opportunities are offered through the ISV's association with Project Zero, the educational research group at the Graduate School of Education at Harvard University.

CONCLUSION

Teacher quality in Melbourne schools has been supported by a proactive set of initiatives by the Victoria DEECD in the areas of teacher recruitment (especially, focused service scholarships) and beginning teacher mentoring. The Victorian Institute of Teaching has worked to strengthen the registration process through the establishment of professional teaching standards to guide preparation and new teacher assessment. Universities have partnered with the DEECD to launch a set of innovative teacher-education reforms. Evidence suggests that preparation and mentoring have improved, although there is still variability in quality across models and schools. Challenges also continue to exist with respect to relatively high levels of teacher and leader turnover, ongoing shortages of teachers for high-need communities and fields, and the effects of contract hiring on teacher turnover. New leadership development initiatives are intended to develop more proactive recruitment and training of both teacher leaders and school principals. These are designed to enable school leaders to better support whole-school improvement initiatives and job-embedded professional learning practices guided by Victoria's frameworks for Performance and Development. The school development approach holds substantial promise for supporting individual and collective teaching quality.

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DEVELOPING TEACHING QUALITY IN SINGAPORE²⁶

Our teachers are simply the most important asset we have. Their commitment to excellence, their caring eye, and the passion they put into nurturing their students are what allow us to provide the best possible education to every young Singaporean.

—Minister for Education Mr. Tharman Shammugaratnam (2007)

CONTEXT

Shortly after Singapore became independent in 1965, its leaders realized that, with few natural resources, the nation's future would be determined by the knowledge and skills of its people. At that time, with relatively few people entering and completing high school, only a small number of people graduated from high school or college, and the nation had few skilled workers. Today, by contrast, about 75 percent of young people complete postsecondary education in a college or a polytechnic, and nearly all of the remainder receives a vocational degree that prepares them for work, which is increasingly likely to be in a high-tech field in one of the many multinational corporations settling in Singapore.

Singapore's 646 square kilometers define a compact country whose four million people represent a diverse population of Chinese, Malay, Indian, and other groups covering a wide spectrum of religions, cultures, and languages. Although English is the language of instruction, it is spoken at home by fewer than half of Singapore's 510,000 students, all of whom are expected to maintain their mother tongue (and often to learn at least one other language) as well as English under the country's policy of bilingualism.

This small nation—about the same size as Kentucky, the median U.S. state—has been steadily building an education system that today seeks to ensure every student has access to strong teaching, an inquiry curriculum, and cutting-edge technology. Education spending usually makes up about 20 percent of the annual national budget, which subsidizes state education and government-assisted private education for citizens.

Education in Singapore is managed by the Ministry of Education (MOE), which administers all state schools, and which has a strong supervisory role with respect to the private schools on the island, most of which are also state subsidized. Of primary schools, 41 of 173 are government-aided private schools; of secondary schools, 28 of 155 are government-aided private schools and 3 are independent schools. Singapore has the advantage of being a single system that can easily create a comprehensive approach to developing a highly integrated teaching and learning system. This characterizes its efforts with respect to teaching quality.

²⁶ This chapter draws in part on Tan Lay Choo and Linda Darling-Hammond, "Creating Effective Teachers and Leaders in Singapore" (see references). Additional research for this chapter was conducted by Channa Mae Cook and Linda Darling-Hammond at Stanford University, as well as by NIE Associate Professor Low Ee Ling and her dedicated team of research associates: Hui Chenri, Lin Huiling Jane, and Tan Shi Yah Jocelyn. We also thank Professor Lee Sing Kong, who served as a senior advisor to this project.

A strong teaching force has always been considered critical to development of a strong education system. As early as 1966, Minister for Education Ong Pang Boon noted:

Teachers have a heavy responsibility, as the future of every one of us in Singapore is to a large extent determined by what teachers do in the classroom... The Singapore government recognises the worth of teachers and realise that it is essential that we have well-qualified and well-paid teachers to have a good education system.

Singapore's education system came to international attention when its students scored first in the world in both mathematics and science on the TIMSS (Trends in International Mathematics and Science Study) assessments in 2003. About 90 percent of Singapore's students scored above the international median on the TIMSS tests. These rankings are based on strong achievement for all of the country's students, including the Malay and Tamil minorities, who have been rapidly closing what was once a yawning achievement gap. This accomplishment is even more remarkable given that fewer than half of Singapore's students routinely speak English, the language of the test, at home. Most speak one of the other four official national languages of the country—Mandarin, Malay, or Tamil—and some speak one of several dozen other languages or dialects.

These successes are the product of a long-term commitment to developing a high-quality educational system, with each era of reform building on previous efforts while acknowledging new realities.

Current initiatives are an outgrowth of a system-wide reform called Thinking Schools, Learning Nation, launched by former prime minister Goh Chok Tong in 1997. The Ministry of Education explains that this initiative is meant to create:²⁷

... a nation of thinking and committed citizens capable of meeting the challenges of the future, and an education system geared to the needs of the 21st century. Thinking schools will be learning organizations in every sense, constantly challenging assumptions, and seeking better ways of doing things through participation, creativity and innovation. Thinking Schools will be the cradle of thinking students as well as thinking adults and this spirit of learning should accompany our students even after they leave school. A Learning Nation envisions a national culture and social environment that promotes lifelong learning in our people. The capacity of Singaporeans to continually learn, both for professional development and for personal enrichment, will determine our collective tolerance for change.

To develop this spirit of creativity and innovation, schools are encouraged to engage both students and teachers in experiential and cooperative learning, action research, scientific investigations, entrepreneurial activities, and discussion and debate. Well-prepared and well-supported teachers and leaders are at the center of these efforts.

A key benefit of the system in Singapore is that all the interrelated processes pertaining to recruitment, training, certification, appointment, and deployment of teachers for the country's schools are the sole responsibility of the Ministry of Education. The ministry works with the National Institute of Education (NIE), which operates all preparation programs, as well as the schools, other government ministries, universities, and other stakeholders. As a recent report from the Center for Policy Research in Education noted:

²⁷ <http://www.moe.gov.sg/about>

A structure that is basically “closed” enables Singapore to manage its teaching workforce both in terms of quantity and quality, and to carefully monitor issues. Such a centrally managed system helps Singapore prevent wastage in human resources and minimize problems like teacher shortages and high turnover, underqualified teachers and out-of-field teaching. (Ingersoll 2007)

RECRUITING AND KEEPING TOP CANDIDATES

In Singapore, teacher education is a serious investment throughout the career. Teachers are hired centrally by the MOE. To get the best teachers, the MOE recruits from the top one-third of each cohort. Teachers may prepare through a graduate program (a one-year postgraduate diploma in education or a two-year diploma in education) or, if they enter after secondary school, a four-year undergraduate teacher-education program, which results in a Bachelor of Arts or Science. Recently there has been a move to shift preparation to the graduate level. Currently, about two-thirds are prepared in the graduate program and one-third are prepared in the undergraduate program. There is also a move to begin to professionalize the early childhood teaching force by providing greater opportunities for these teachers to study education.

Teaching is considered an attractive profession. It is well respected and well remunerated. Only one out of eight applicants for admission to their teacher-education programs is accepted, and that only after an intensive application process.²⁸ Besides meeting academic standards, aspiring teachers also must have aptitude and interest, as revealed in interviews with experienced principals and teachers (Teo 2000, cited in Ingersoll 2007). The interviewers seek to learn more about a prospective teacher’s passion for teaching, ability to communicate well with others, creative and innovative spirit, confidence, leadership qualities, and capacity to be a good role model.

When they are admitted to preparation, candidates are immediately put on the ministry’s payroll.

When they graduate, new teachers must complete a “teaching bond,” ranging from three to four years, depending on whether they completed a graduate or undergraduate program. When they enter teaching, they earn as much as or more than the average starting salary of fresh graduates with similar qualifications in the job market. As Sclafani and Lim (2008) point out:

How does Singapore get high-performing students to apply? It is not just future salary, although salaries are competitive with those of engineers in the civil service. It is a combination of factors. The most immediate is that the Ministry pays all tuition, fees and a monthly stipend to undergraduate teaching candidates. For those who enter teacher preparation at the graduate level, the stipend is equivalent to what they would have made as college graduates in a civil sector job. Since this must be repaid if the candidate fails the program or leaves the profession before the stipulated period...it is also a powerful motivator for serious commitment to the program.

The second significant factor is that teaching is known as a highly selective field with great opportunities for individual growth and development...Third, the Ministry is looking for and finding those young people who have a passion for helping others. Community service is part of every

²⁸ <http://www.ncee.org/programs-affiliates/center-on-international-education-benchmarking/top-performing-countries/singapore-overview/singapore-teacher-and-principal-quality>

student's education in Singapore, and assignments of working with younger students or peers who need tutors help teachers identify students who should be encouraged to be teachers.

Selectivity operates at every phase of the teacher's career: the system is always seeking to identify excellence. It starts with the teacher practicum, where candidates can earn distinction and receive a higher entry salary, and continues through the three career tracks: teaching, leadership and content specialist. Within each is a career ladder based on performance. The annual evaluation determines the size of the annual bonus and whether one moves up the ladder in salary and position. Only the very good teachers can move up to senior teacher positions and only the very, very best get to be master teachers. While it sounds very competitive, it is really a very collegial system. The expectation is that every teacher wants to be the best he or she can be and will strive to do so. Because teachers understand and respect the evaluation system, they honor the teachers who move up, and they work to learn from them so they can improve as well.

We mention the career ladder system here, because it serves as part of the recruitment context for high-ability applicants. In a later section, we discuss the teacher development and evaluation system as it operates to build teachers' skills as well as to keep good teachers in the profession.

To return to the start of the career: The first assignment for a teacher is made by the MOE based on the manpower needs of the schools. Subsequently, after two years, teachers can request postings to schools of their choice, subject to approval by their principals and the receiving principals. Principals can also identify teachers to be posted to their school, subject to agreement from the other principal. In addition, there is a yearly posting exercise where teachers who requested a job rotation would be centrally posted, and assigned according to manpower needs.

To make teaching a viable career choice for midcareer entrants who bring other valuable expertise with them, Singapore created a policy in 2008 to recognize more of their years of nonteaching experience (80 percent of which is credited toward the calculation of their initial salary), plus all of their prior teaching experience, and to accelerate their salary increases so that these recruits can catch up to their peers who entered teaching immediately, earning a comparable salary by their fourth year of trained teaching experience. They can also move more quickly into the promotions process if their performance warrants.²⁹ Midcareer recruits are trained in the same graduate-level programs as most other Singaporean teachers, earning a salary as they prepare, as others do.

The attrition rate of teachers is less than 3 percent annually. This is low compared to other public and private organizations. (By comparison, attrition rates for teachers in the United States range between 6 and 8 percent annually.) Based on recent MOE climate survey data, teachers indicate the following as their top three reasons for staying in the service: positive culture with a strong sense of mission; good compensation and rewards benchmarked against market rates; and a wide range of opportunities for professional growth and development.

The Singapore teaching force stands at approximately 33,000 today, up from 24,600 in 2001. This growth has been in part a function of increased enrollment and in part a function of reduced class sizes. The MOE takes care in planning for teacher recruitment, using feedback gathered annually from schools as well as its own data to plan for personnel needs. The ministry engages in strategic forecasting to meet vacancies

²⁹ Press release, Ministry of Education. See <http://www.moe.gov.sg/media/press/2007/pr20071002b.htm>.

resulting from retirements and resignations, as well as long-term system requirements, such as planning for new schools, initiatives, and programs. The MOE determines how many places in which fields will be opened up in teacher education based on these forecasts.

PREPARING TEACHERS WELL

All pre-service preparation occurs at the National Institute of Education (NIE), affiliated with Nanyang Technological University (NTU), which prepares over two thousand teachers per year. The NIE has been an integral part of Singapore's education system since it was first established as the Teachers' Training College in 1950. The NIE provides pre-service teacher education and ongoing professional development to teachers and school leaders who work at the primary, secondary, and junior college level. Recently, programs have been added for early childhood educators to help them upgrade their skills. The NIE also undertakes educational research to inform preparation and practice.

Teacher-education programs were overhauled in 2001 to increase teachers' pedagogical knowledge and skills, on top of their content preparation, which includes, even for elementary teachers, a deep mastery of one content area, plus preparation for the four major subjects they must teach (English language, mathematics, science, and social studies).

A decade later, the NIE's preparation programs were again redesigned to more closely link theory and practice. Practicum training has been expanded and located in a new school partnership model that engages schools more proactively in supporting trainees. The practicum component follows a developmental model, which features focused conversations that aid analysis and reflection with supervisors. Courses and practicum experiences include problem-based learning projects, and candidates engage in authentic assessments, including a portfolio evaluation. All NIE student teachers also complete a one-year service-learning project that "helps to develop the holistic person in the student teacher....Service-learning aims to foster values such as care, respect for diversity, a collaborative team spirit, professional commitment, and dedication."

The NIE describes its current preparation framework as follows:

NIE's initial teacher preparation is one that is very strongly pivoted on three-pronged set of values (V) with skills (S) and knowledge (K) needed of a 21st Century Teaching professional wrapped around the central pillar of values.... Key to [the V³SK framework] is a clear reiteration of NIE's belief that the learner is the centre of our teacher education mission. This framework is premised along three value paradigms: learner-centredness, teacher identity, and service to the profession and the community. Learner-centredness puts the learner at the heart of teachers' work, while the paradigm of teacher identity outlines the clear attributes the teacher must possess in order to bring about strong learning outcomes in a rapidly changing world. Service to the profession and the community spells out teachers' commitment to their profession through active collaborations with members of the fraternity and striving to be better practitioners with a view of benefitting the community as a whole. Finally, the skills and knowledge spelt out in this framework refer to key skills and knowledge competencies that 21st Century teaching professional require in order to bring about 21st century literacies and learning outcomes. These skills and competencies are closely

aligned with the Ministry of Education's articulation of desired student outcomes as outlined in their Curriculum 2015 (C2015) document.³⁰

The goal is to develop a set of Graduate Commitments, Capacities and Competencies (GC3) that include expanded knowledge of the disciplines, a mindset of critical inquiry, communication competencies, leadership competencies, and the values and dispositions described above and in Figure 1 below.

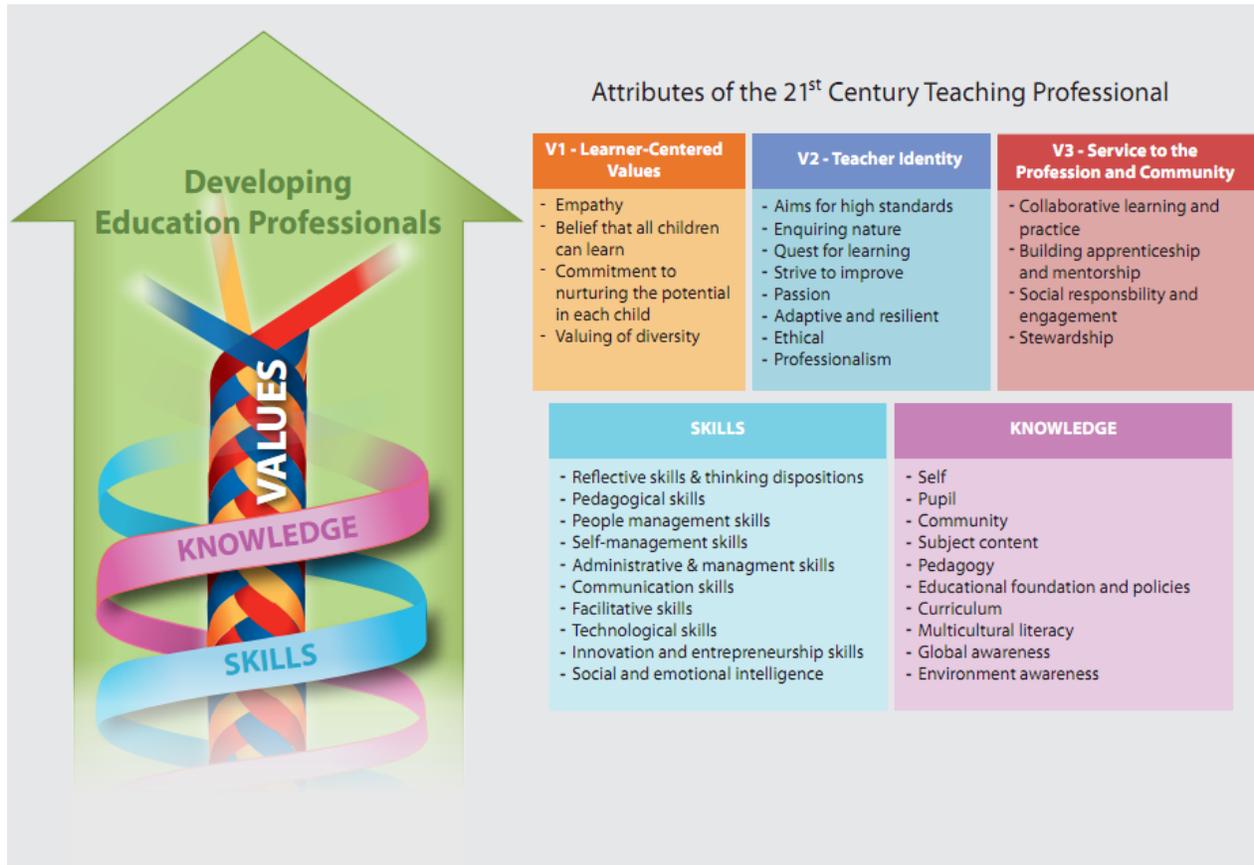


Figure 1. The V³SK framework from the NIE (2012, 6).

Growing efforts have been made to engage candidates in the kind of inquiry and reflection that they are expected to engage their students in, so that they can teach for independent learning, integrated project work, and innovation. During the course of preparation, there is a focus on learning to use problem-based and inquiry learning, on developing collaboration, and on addressing a range of learning styles in the classroom.

³⁰ <http://www.nie.edu.sg/office-teacher-education>

Current initiatives include the use of videotapes of teaching to support teachers’ analysis of practice and to strengthen the theory–practice connection; integration of pedagogies for teaching twenty-first-century skills; increased emphasis on preparing teachers for formative assessment and performance assessments; and a new e-portfolio, launched in 2011, providing evidence of a student teacher’s learning and reflections over time, to support development and confirm the attainment of teaching competencies. These are listed in the Graduated Teacher Competencies (GTC) framework, shown in Figure 2 below.

Organisation of the GTCs	
Performance Dimensions	Core Competencies
Professional Practice	<ol style="list-style-type: none"> 1. Nurturing the child 2. Providing quality learning of child 3. Providing quality learning of child in CCA 4. Cultivating knowledge: <ol style="list-style-type: none"> i. with subject mastery ii. with reflective thinking iii. with analytic thinking iv. with initiative v. with creative teaching vi. with a future focus
Leadership & Management	<ol style="list-style-type: none"> 1. Winning hearts & minds <ol style="list-style-type: none"> i. Understanding the environment ii. Developing others 2. Working with others <ol style="list-style-type: none"> i. Partnering parents ii. Working in teams
Personal Effectiveness	<ol style="list-style-type: none"> 1. Knowing self and others <ol style="list-style-type: none"> i. Tuning into self ii. Exercising personal integrity iii. Understanding and respecting others iv. Resilience and adaptability

Figure 2. The GTC framework from the NIE (2010, 5).

The e-portfolio, which collects evidence of these competencies, is intended as a tool for reflection. Its goal is:

... to help student teachers aggregate and integrate their learning by charting their learning journey, including the development of their personal teaching philosophy over time. They use their e-portfolios for a variety of purposes such as a repository for their pieces of work (artifacts), as a site for documenting their growth as learners and teachers, as an avenue for translating their reflections into words, as a channel for interaction with other users, and for gathering feedback from their tutors and peers. The e-Portfolio provides student teachers with a structure within which they document what they know and are able to do as teachers, and affords on-going opportunities for them to reflect and converse about their growing understandings of what constitutes good teaching in relation to the GTCs. This record ... also provide[s] evidence of the theory-practice link in the student's learning and classroom teaching (NIE 2012, 11).

Candidates have practicum opportunities in classrooms with teachers deemed good models of these practices. The four-year undergraduate program includes frequent practicum experiences in each year of their training. Candidates spend more than twenty weeks working in the classroom over the course of their preparation. The one-year graduate program includes a ten-week practicum in a school. The practicum is jointly supervised and assessed by a lecturer from the National Institute of Education and a supervising senior teacher in the school. A pass in the practicum is a necessary criterion for the award of the diploma.

At the NIE, candidates learn to teach in the same way they will be asked to teach. Every student has a laptop, and the entire campus is wireless. The library spaces and a growing number of classrooms are consciously arranged with round tables and groups of three to four chairs, so that students will have places to share knowledge and collaborate. A comfortable area with sofa and chair arrangements is designed for group work among teachers and principals. The grouping areas are soundproofed with an overhead circular cone, so that several groups can work together in the same room. They have access to full technology supports (e.g., DVD, video and computer hookup, and a plasma screen for projecting their work as they do it. The wall is a white board for recording ideas).

The NIE has been creative in thinking about how to help teachers envision new modes of practice even beyond those they might see in their student teaching. For example, a "Classroom of the Future" has been constructed at the NIE to give educators a vision of what learning will be like in the future. It includes multiple settings and contexts for learning, including handheld computers; a coffee bar, where students can meet around round tables and work on educational video games; communications with other students in other countries working on solving a problem together (e.g., identifying a virus that is spreading, collecting data, running tests, accessing information via the internet); working on a problem the subway while tracking friends; at home, where interactive technology connects families and friends in communication; and finally, in a classroom, which again features round tables surrounded by chairs and in which students are engaged in more inquiry and problem solving. These settings are used as the site for learning new teaching strategies.

The NIE conducts its own evaluation of the pre-service courses and gathers feedback from new teachers on the effectiveness of these courses in teacher preparation. The information is used to make program improvements. In 2009, the NIE established an Office of Academic Quality Management (OAQM) to strengthen the academic quality of all of the institution's programs. It seeks to develop a culture of self-improvement in the NIE by gathering evidence-based feedback through student teachers' satisfaction surveys

of their learning experiences while at the NIE, graduate preparedness for teaching in schools, and stakeholders' feedback on those graduates to ensure fitness of preparation for workplace requirements.³¹ The variety of tools used to assess the quality of teaching and learning at strategic points of the teacher-development process is shown in Figure 3 below.³²

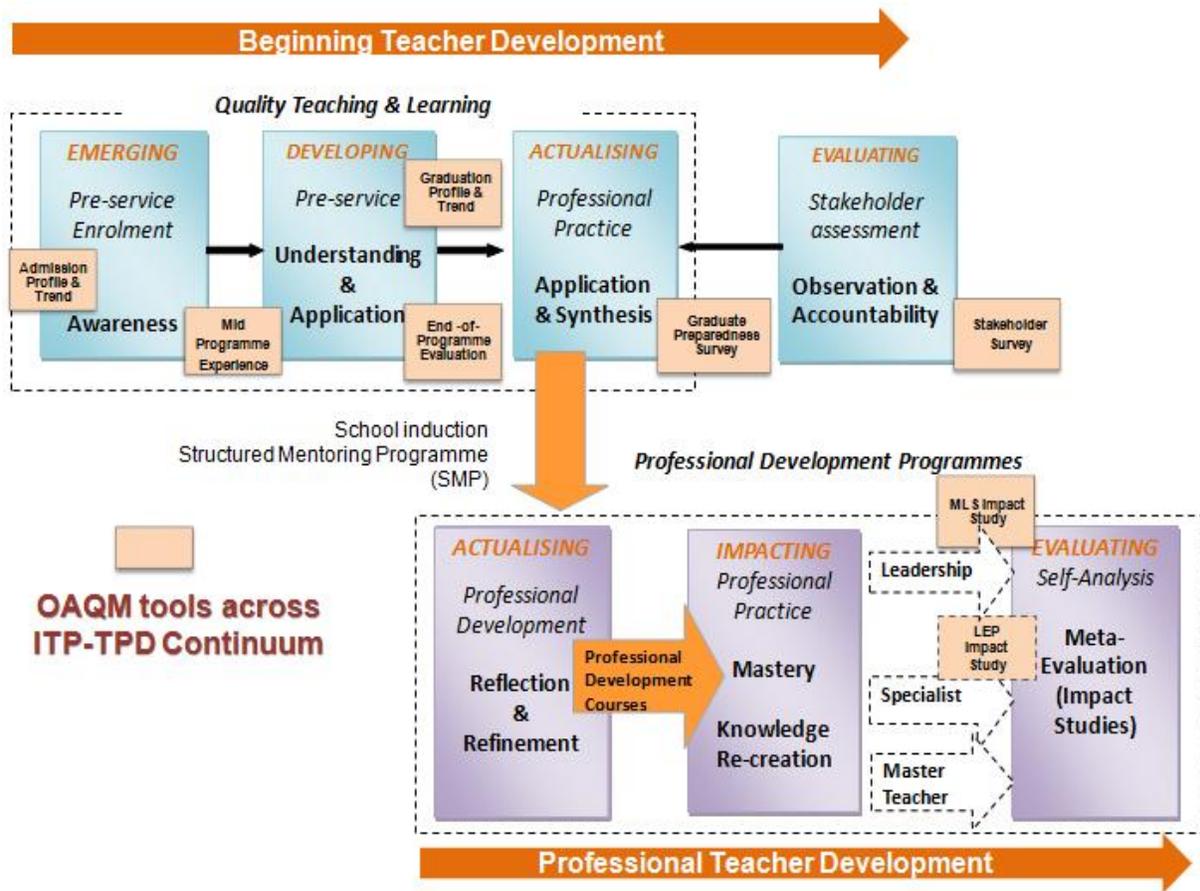


Figure 3. Framework for OAQM Processes, from the NIE website.

During initial teacher preparation, evaluation data include the following:

- assessments of candidates' knowledge
- student teachers' perceptions of their overall program experience, and how well it has prepared them to teach in schools
- student teachers ability to understand and apply what they have learned
- stakeholders' (e.g., principals' and vice-principals') perceptions of beginning teachers' preparedness to teach in schools

³¹ <http://www.nie.edu.sg/office-academic-quality-management>

³² <http://nie.edu.sg/office-academic-quality-management/framework-processes/framework-oaqm-processes>

With respect to teacher professional development, evaluation data include the following:

- teachers' reflection about their professional development needs
- teachers' perceptions about the effectiveness of the professional development programs in allowing them to apply new knowledge in schools
- lead teachers' self-analysis about their capacity to impact educational outcomes for school improvement, based on their respective professional roles on Singapore's three-lane career ladder (Leadership, Specialist, Master Teaching)

ONGOING PROFESSIONAL LEARNING FOR TEACHERS

Support for Beginning Teachers

Beginning teachers are equipped with the basic theories and practical skills to teach. However, the pre-service program may not adequately prepare them in the whole repertoire of skills and competencies needed to be effective teachers. After initial preparation, novice teachers are not left to sink or swim. Following pre-service preparation, beginning teachers are mentored and coached by senior teachers for another two years. Expert teachers, trained by the NIE as mentors, are given released time to help beginners learn their craft.

During the structured mentoring period, beginning teachers also attend courses in classroom management, counseling, parent relations, reflective practices, and assessment offered by the NIE and the MOE. In addition, they participate in dialogue sessions at the cluster level. (Schools in Singapore are organized into clusters of about twelve to thirteen for various collective activities.) During this period, novices are given a lighter workload (two-thirds that of a more experienced teacher) to help them ease into the teaching profession. These two years serve as an "extended practicum," and their performance is used to determine their confirmation in the service. (Confirmation is analogous to having tenure. Teachers do not need to be recertified or licensed after confirmation.) The early years are both well supported and closely evaluated. As Sclafani and Lim (2008) observe:

New teachers are observed and coached by grade level chairs, subject area chairs, and heads of departments. If a teacher is not performing well, additional support and coaching come into play. Everyone tries to help the new teacher adjust and improve, but lack of improvement, poor attitude or lack of professionalism is not tolerated....[T]he new teacher may be allowed to try another school, but if a year of working with the teacher has not improved his or her performance, the teacher may be asked to leave the profession. The system believes that it should do its best up front and counsel out those who do not make progress despite the support and assistance. Past this milestone, very few teachers are asked to leave, and then the causes may be lack of integrity, inappropriate behavior with a student, financial mismanagement, or racial insensitivity.

Another noteworthy aspect of the structured mentoring program is the care with which mentors are trained and mentoring is organized. To ensure better training and clearer expectations of mentors, the MOE created a Skillful Teaching and Enhanced Mentoring (STEM) program and involved thirty prototype schools with the aim of discovering good mentorship models and practices for the mentoring of beginning teachers. This initiative included training of in-service teachers. This program was then coordinated with the training of mentors for student teachers through a partnership with the NIE (NIE 2012).

There are three formalized mentor roles defined in the structured mentoring program:

- Mentor coordinator: This is the leader of the school's mentoring program, usually a head of a department or a senior teacher. The mentor coordinator plans the mentoring program and provides support for mentors, serving like a "mentor for mentors."
- Mentor: This experienced senior teacher is assigned to look after the well-being, skills development, and professional growth of a beginning teacher. A good mentor is skilled at providing instructional support, has strong interpersonal and communication skills, conveys optimism, and models continuous learning.
- Mentor (specialized): The specialist mentor coaches beginning teachers in specific areas of skill development that are relevant to their particular learning goals.

Schools may use either a generalist or a specialist mentor model, or they may combine the two. The commonly used one-to-one model is where a beginning teacher is paired to a mentor based on his or her teaching subject, level, or department, and relates primarily to that one teacher. In the specialized model, mentors work in teams, so that their diverse strengths are tapped to mentor a group of beginning teachers, each taking care of a different aspect of novices' needs (Ng 2012, Chong and Tan 2006).

Continuous Professional Learning

On average, the government pays for one hundred hours of professional development each year for all teachers. There is a wide range of professional development courses and conferences/seminars. Teachers can also take professional development leaves and sabbaticals to enhance their skills. In addition to the offerings at the NIE, teachers get stipends each year to spend as they choose on anything that will improve their professional skills: various kinds of training, memberships to professional organizations, journal subscriptions, or educational travel. They can also take professional development leaves that are partially funded by the ministry to allow for part-time or full-time study, travel, work in an international school, or work in a business enterprise to develop a better understanding of the applications of their teaching to the real world (Sclafani and Lim 2008).

Teachers have approximately twenty hours of timetabled teaching periods per week. Teachers can make use of their nonteaching hours to work with other teachers on lesson preparation, visit each others' classrooms to study teaching, or engage in professional discussions and meetings with teachers from their school or their cluster.

Since the prime minister introduced the Thinking Schools, Learning Nation initiative in 1997, Singapore's explicit focus in its reforms of curriculum, assessment, and teaching has been to develop a creative- and critical-thinking culture within schools by explicitly teaching and assessing these skills for students—and by creating an inquiry culture among teachers as well, who are supported to conduct action research on their teaching and to continually revise their teaching strategies in response to what they learn.

The NIE and MOE have been training teachers to undertake action research projects in the classroom so that they can examine teaching and learning problems, and find solutions that can be disseminated to others. To support school-based learning, senior and master teachers are appointed to lead the coaching and development of the teachers in each school.

Among Singapore's many investments in teacher professional learning is the Teachers' Network, established in 1998 by the MOE as part of the Thinking Schools initiative. The Teachers' Network has since evolved into the Academy of Singapore Teachers. The initial mission of the Teacher's Network—and now the academy—is to serve as a catalyst and a support for teacher-initiated and teacher-led development through sharing, collaboration, and reflection. The MOE has just established a new teachers' academy to support professional development opportunities across schools.

Through dedicated Subject Chapters and Professional Learning Communities, the aim is for the teaching community as a whole to collectively upgrade the professional expertise of fellow teachers.³³ Its programs include learning circles, teacher-led workshops, conferences, and a well-being program, as well as a website and publications series for sharing knowledge.

In a typical learning circle, four to ten teachers and a facilitator collaboratively identify and solve common problems chosen by the participating teachers, using discussions and action research. The learning circles generally meet for eight two-hour sessions over a period of four to twelve months. Supported by the national university, professional development officers run an initial whole-school training program on the key processes of reflection, dialogue, and action research, and a more extended program to train teachers as learning-circle facilitators and mentor facilitators in the field. A major part of the facilitator's role is to encourage the teachers to act as co-learners and critical friends, so that they feel safe to take the risks of sharing their assumptions and personal theories, experimenting with new ideas and practices, and sharing their successes and problems. Discussing problems and possible solutions in learning circles fosters a sense of collegiality among teachers and encourages teachers to be reflective practitioners. Learning circles allow teachers to feel that they are producing knowledge, not just disseminating received knowledge.

Teacher-led workshops provide teachers an opportunity to present their ideas and work with their colleagues in a collegial atmosphere, where everyone, including the presenter, is a co-learner and critical friend. Each workshop is jointly planned with a professional development officer to ensure that everyone will be a co-learner in the workshop. The presenters first prepare an outline of their workshop; then the professional development officer helps the presenters surface their tacit knowledge and assumptions, and trains them in facilitation, so that they do not present as an expert with all the answers but instead share and discuss the challenges they face in the classroom. The process is time consuming, but almost all teacher presenters find that it leads to them grow professionally.

Professional development is also explicitly designed to enable teachers to implement the national curriculum—in particular, the new emphases on critical and creative thinking and on ongoing formative assessment. This new curriculum emphasis is intently reinforced in teachers' pre-service and in-service training. In the curriculum and assessment guidelines that accompany the national standards, teachers are encouraged to engage in continual assessment in the classroom using a variety of assessment modes, such as classroom observations, oral communication, written assignments and tests, and practical and investigative tasks (Darling-Hammond 2010).

The MOE has developed a number of curriculum and assessment supports for teachers. For example, SAIL (Strategies for Active and Independent Learning) aims to support more learner-centered project work in classrooms and provides assessment rubrics to clarify learning expectations. All schools have received

³³ <http://www.moe.gov.sg/media/press/2011/03/new-teach-framework-to-enhance-quality-teaching-force.php#footnote-2>

training for using these tools. The MOE's assessment guides for both primary and lower secondary mathematics contain resources, tools, and ideas to help teachers incorporate strategies such as mathematical investigations, journal writing, classroom observation, self-assessment, and portfolio assessment into the classroom. Emphasis is placed on the assessment of problem solving and on metacognition, the self-regulation of learning that will enable students to internalize standards and become independent learners.

The NIE has held a variety of workshops to support learning about the new assessments and has integrated the new strategies into teacher development programs. Mathematics teacher associations have organized conferences on assessments. A group of the secondary school mathematics department heads produced a book for other teachers on journal writing in the mathematics classroom, which has been widely used, and other teachers have produced materials and exemplars of assessments that are frequently shared. Change is a collective enterprise energetically pursued with strong supports and a sense of shared mission.

The MOE has increased the range of opportunities for teachers to develop their professional capabilities, both by establishing the Academy of Singapore Teachers and by setting up a Centre of Excellence for Professional Development at each of the four zones that serve the system, to help teachers share their expertise more easily. The MOE has also worked with the NIE to give teachers the opportunity to obtain higher professional certification, including postgraduate degrees.

In addition, the MOE encourages teachers to complete a master's degree by creating options for part-time teaching while pursuing coursework and by awarding a stipend of \$4,000 (in Singaporean dollars) when they have completed the degree in an approved course of study. In addition, the MOE plans to introduce full-time advanced diploma programs and a new full-time postgraduate award as additional pathways to encourage teachers to pursue further studies in an area of relevance to their career in the MOE. The MOE has set a goal that virtually all teachers will be graduates by 2020 and, with 800 teachers pursuing postgraduate upgrading each year, the number of teachers with postgraduate degrees (master's and doctorates) will double to 20 percent "to deepen the expertise of the rest of the teaching community."³⁴

To continue to improve program quality, the MOE conducts regular surveys to gather feedback from teachers. The relevant findings concerning in-service training are taken up by both the MOE and the NIE for continual improvement.

EVALUATION AND CAREER DEVELOPMENT

Career development is a constant concern in Singapore schools. Principals, cluster superintendents (each of whom oversees a network of about a dozen schools), and MOE senior management all pay attention to teachers' talents and potentials to support promotions and to tap teachers for a variety of leadership roles.

In 2011, the MOE released the TEACH framework (see Figure 4),³⁵ which is intended to support educators' development as they build their professional capabilities, deepen their teaching expertise, and achieve their career aspirations. The policies associated with the framework include educational supports for continuing learning and advancement, as well as opportunities for new roles and flexible job structures.

³⁴ <http://www.moe.gov.sg/media/press/2011/03/new-teach-framework-to-enhance-quality-teaching-force.php>

³⁵ <http://www.moe.gov.sg/careers/teach>



Figure 4. The TEACH framework.

The MOE is creating 1,500 more leadership positions in schools, not only in teaching subjects but also in holistic student development areas such as citizenship and character education, pastoral care, and co-curricular activities. More leadership and specialist positions will also be created at the MOE headquarters as part of the ministry’s efforts to expand organizational capabilities and deepen expertise in the education domain. All these will expand the advancement pathways for teachers and enrich their career experience.

Evaluation

Teacher performance is evaluated through a performance-management process using the Enhanced Performance Management System (EPMS). The EPMS is a competency-based performance management system, introduced in 2003, that spells out the knowledge, skills, competencies, and attitudes expected at each stage of the career and within each of three career tracks: the teaching track (which extends through levels of senior, lead, and master teachers); the specialist track (which includes roles like curriculum specialist, educational psychologist, and guidance counselor); and the leadership track (which progresses through roles like department head to vice-principal, principal, superintendent, and divisional heads and directors). These opportunities bring recognition, extra compensation, and new challenges that keep teaching exciting.

Teachers are assessed based on their contributions to the holistic development of students; i.e., quality of students’ learning, pastoral care and well-being of students, cocurricular activities, and collaboration with parents. The evaluation takes into consideration both processes and outcomes in academic as well as nonacademic domains. Outcomes include classroom success of students, but external test scores are not generally part of the evaluation process.

Through the EPMS process, teachers are encouraged to expand their teaching repertoire, select a career track, and take those developmental actions that lead to greater competence and higher levels on the career ladder. Teachers start the year with a self-assessment and develop their goals for teaching, instructional innovations and improvements at the school, professional training, and personal development. They discuss their goals and performance benchmarks with their reporting officer to ensure they are aligned with the department,

school, and national goals and benchmarks. These meetings are opportunities to discuss where the teacher ended the last year and what needs to be done next to reach his or her career goals. The reporting officer encourages the teacher to reach further and improve over past performance to reach his or her full potential. Together they decide where the teacher can find additional training, or which senior teachers or department heads can best help with coaching. It is a collegial process whose goal is to be sure that teachers have the competencies to improve student achievement. During the year, there are informal evaluation meetings, a more formal midyear evaluation, and then the final evaluation.

The EPMS document is a narrative that summarizes at midyear and at the end of year the activities engaged in, progress toward the goals set, and data on the performance benchmarks. It adds summaries of relevant discussions between the teacher and the reporting officer, as well as evaluative narratives from both the teacher and the reporting officer. These evaluations are pegged to the experience level of the teacher, since the level of competence expected of a new teacher is much lower than expectations for senior teachers.

The final annual evaluation includes not just an assessment of current performance but also of the teacher's future potential, called "current estimated potential." The decision on potential is made based on evidence in the teacher's portfolio and the supervisor's judgment of the teacher's contributions to the school and community, in consultation with the senior teachers who have worked with the teacher, the department and grade chairs, the reporting officer, the vice-principal, and the principal. The estimate of potential is used to help the teacher grow and develop that potential. It identifies who should be tapped for additional opportunities to serve the school and develop their skills.

The personpower for this system comes from the distributed leadership model in place. As part of the career tracks, senior teachers, grade level chairs, subject area chairs, and heads of departments are all available to work with teachers, while heads of departments and vice-principals serve as reporting officers on the EPMS. The vice-principal and/or principal are consulted where there is a close judgment call and serve as second-level evaluators, but they are not responsible for the whole process for every teacher. They focus on the heads of department and senior teachers. The principal reviews and endorses the final assessment. This is another way that the whole staff is part of the process of continuous improvement and culture building (Sclafani and Lim 2008).

Career Tracks for Teachers

Annual evaluations are used to establish a performance bonus, set by the principal for each teacher, as well as to flag out struggling teachers for additional assistance or potential dismissal (a very tiny number), and to flag successful teachers for potential promotions. In considering teachers for promotion or progression along each of the three career tracks (see Figure 5),³⁶ their performance evaluations in the last three years are taken into consideration. There is flexibility of lateral movements across the three career tracks.

³⁶ <http://www.moe.gov.sg/careers/teach/career-info>

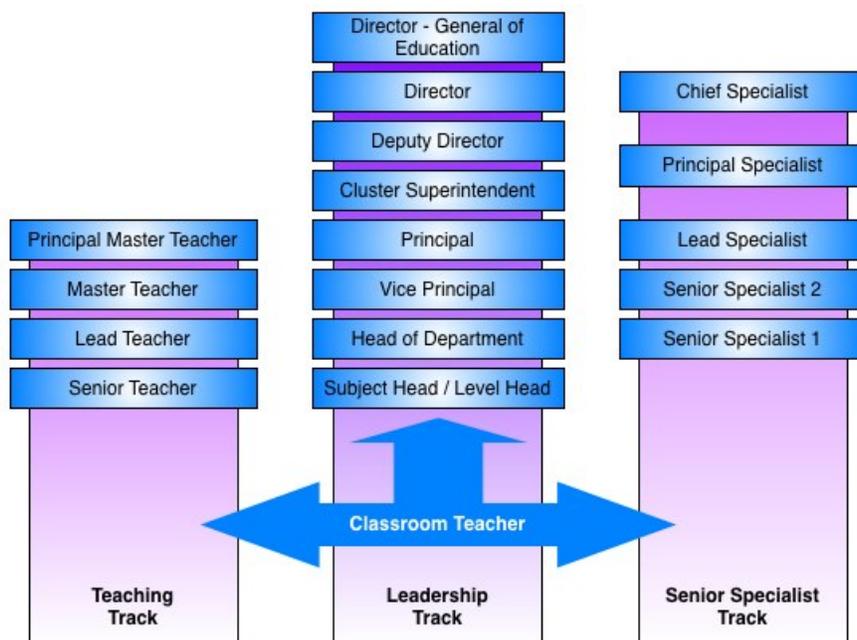


Figure 5. Career tracks for teachers.

As teachers are promoted and selected into these kinds of roles, they receive free courses of study through the MOE at the NIE, sometimes while they are still teaching, and other times while taking a sabbatical from their jobs. Teachers who take on higher levels of responsibility, such as head of department or principal, will eventually be promoted to a higher pay scale that is commensurate with their respective roles and responsibilities. The diagram above illustrates that a teacher has the opportunity to progress to a promotional grade and pay scale equivalent to that of a school principal if he or she reaches the pinnacle of the master-teacher track. Similarly, a specialist can progress to as high a promotional grade as that of a director.

Advancement along the Teaching Track

Those aspiring to advance within the teaching track must meet accreditation standards for the positions. These standards are assessed through a professional portfolio, which includes the following:

- a personal statement on taking up the higher appointment
- a summary of evidence satisfying each accreditation standard
- supporting data to substantiate the evidence (e.g., lesson plans, presentations, and so on)

The accreditation standards build on the evaluation criteria used to evaluate teaching (holistic development of pupils through quality learning, pastoral care and well-being, and cocurricular activities), adding progressively broader criteria at each career level. These include such things as contributions to the school, cluster, zone, and nation; collaboration and networking; and contributions to a culture of professionalism, ethos, and standards.

The NIE offers milestone courses to equip officers for leadership roles in the various career tracks. In the teaching track, teachers take course modules in the Senior Teachers Program and the Advanced Senior Teachers Program.

In 2006, the MOE decided to appoint a school staff developer (SSD) in every school to support school improvement and the professional growth of school staff. The SSDs are supported with their own professional development, including an induction program, the Management and Leadership in Schools Program for SSDs, a bridging course, learning journeys, and networking sessions.

Advancement along the Specialist Track

The senior specialist track aims to develop a strong core of officers in the MOE with deep knowledge and skills in areas such as curriculum, planning, educational programs, and educational technology. These specialists are supported in pursuing advanced graduate study (master's and doctorate degrees), and they work in clusters that help guide policy and practice for curriculum and assessment, educational psychology and guidance, and educational research and measurement.

Advancement along the Leadership Track

As leadership is seen as a key enabler for strong schools, much attention and resources are given to identify and groom school leaders. Teachers with leadership potential are identified early and groomed for leadership positions. They progress from teacher to subject head, head of department, vice-principal, and then principal.

Potential principals go through several rounds of interviews with senior management, including the permanent secretary, the director-general, and directors in the MOE. They also need to undergo a Leadership Situation Exercise, which is a two-day intensive simulation test to gauge their leadership competencies and their readiness to take on leadership positions. After this selection process, they are required to attend a six-month Leaders in Education Program (LEP) conducted by the NIE, during which time their salaries are fully paid.

The LEP is a leadership executive program that exposes potential school leaders (about thirty to forty in a cohort) to challenging leadership experiences in the context of the school and beyond to other industries. Participants have the opportunity to visit other countries and learn about their educational systems and structures, and the kinds of issues they are grappling with. The LEP also helps to shape the personal qualities for effective leadership and to prepare them to meet the demands of school management and dealings with parents, school boards, and the public. As Ng (2008, 241) notes:

The LEP aims to produce school leaders with the capability to transform schools to be innovative learning communities that nurture innovative students and teachers in a rapidly changing and complex new economy, one that is driven essentially by knowledge and learning. Knowledge creation and innovation are thus the central themes in the LEP. It aims to engage participants in deep learning to develop leaders who can anticipate likely future scenarios and develop schools for tomorrow.

The LEP course modules address many of the aspects of current education reform in Singapore and explicitly seek to develop leaders who can deal with an uncertain future. They include:

- *Managing competitive learning school organizations*: knowledge and innovation; organization design and management; changing environmental trends
- *Marketing and strategic choice*: values, quality, and innovation; corporate vision, strategic agendas; school marketing theory and practice; partnerships with stakeholders
- *Applying new technology in learning*: the e-learning environment and its learning culture; e-pedagogical models; assessing new learning; creating borderless arenas of learning

- *Achieving excellence in teaching and learning*: curriculum design; process curriculum; new paradigms of assessment; monitoring and assessing teaching quality; high-achievement cultures; working with data and evidence; packaging knowledge
- *Leadership for the new millennium*: leading the team; the leader as coach, steward, and designer; team learning and shared vision; influencing and motivating; philosophy, values, and passion; generative conversation in dialogue and discussion
- *Futuring, complexity, and the edge of chaos*: developing foresight of the future and insight of the present; leading and managing in a complexity paradigm; innovating at the border of order and chaos (Ng 2008, 242)

A major undertaking is the Future School Project, which requires participants to create a school for fifteen years hence, based on their projections of future trends and discussions with stakeholders. The goal is to challenge mental models, attend to the environment, and think deeply about educational goals and purposes.

Participants of the LEP are also mentored by experienced principals while they take courses at the NIE. Beyond the LEP, new principals are given in-service training on governance, human resource management, financial management, and management of media.

The placement of principals in schools is decided at the headquarters level, where they are matched to schools according to their leadership strengths and the profile/needs of the school. Teachers and parents do not have a role in the selection and placement of principals.

Like teachers, principals are evaluated using the EPMS. They are assessed on their performance and leadership competencies. The evaluation takes into consideration processes and results in the following areas: vision for the school, strategic planning and administration, development and management of staff, and management of resources and school processes. They are also assessed on their overall school performance, which includes student academic achievement, as well as achievements in nonacademic domains such as arts and aesthetics, physical fitness and sports, social and emotional well-being, and student morale and leadership. These evaluations are used to determine their promotion and progression along the leadership track. Principals who are not performing will be counseled, coached, and, if need be, redeployed.

Principals who show strong leadership abilities and a broad vision for educational improvement are continuously evaluated for promotion to the level of cluster superintendent, and even a directorship within the MOE. Thus Singapore aims to build a coherent system grounded in a common vision; strong, common training around shared goals; and the continual development of educational knowledge, skills, and talent.

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DEVELOPING TEACHING QUALITY IN TORONTO³⁷

These public schools are the bedrock of the society we have built, and public libraries have a place right alongside them. The two are interwoven. They are the warp and woof of our democracy. We still need to ensure that all our citizens have this access to knowledge, to the skills and opportunities that they need if they are to participate responsibly in society. Our schools and libraries are essential to this success, to the social equality that Canadians are working so hard to build.

—Adrienne Clarkson, governor general of Canada³⁸

CONTEXT

Canada's marked academic educational success is a relatively recent phenomenon. Canada has enjoyed a recent rise in international education standings, with its students performing near the top of the Program for International Student Assessment (PISA) assessment rankings in reading, mathematics, and science. As of 2006, 91 percent of twenty-five- to thirty-four-year-olds had obtained senior secondary education, above the Organisation for Economic Co-operation and Development (OECD) average of 77 percent; 54 percent had completed tertiary education, compared to the 32 percent OECD average (OECD 2007). Furthermore, of the top ten OECD countries, Canada had the highest proportion of the population aged twenty-five to sixty-four with a university or college education (48 percent).³⁹

Canada is a country that has a distinct indigenous population (3.8 percent) and a growing immigrant population (19.8 percent).⁴⁰ Its educational system has evolved in response to changing societal and economic demands as well as shifting demographics. The country is made up of ten provinces and three territories, and each controls its own education sector and sets the direction of education. Thus, education policies are set primarily at the provincial level and not at the federal level.

The Provincial Setting: Ontario

The most populous and diverse of the thirteen provinces and territories is Ontario. With nearly thirteen million people, Ontario has been the province of choice for over half of all new immigrants, (52.3 percent), most of whom have chosen to settle in Toronto.⁴¹

Ontario has four publicly funded school systems (English public, English Catholic, French public, and French Catholic), with the English schools making up the majority of the publicly funded schools. According to the Ontario Ministry of Education 2009–2010 data, there were 1.3 million students in publicly funded schools, including 659,000 students in publicly funded Catholic schools. There are approximately 4,900

³⁷ This chapter draws in part on Barry Pervin and Carol Campbell “Systems for Teacher and Leadership Effectiveness and Quality” (see references). Additional research for this chapter was conducted by Linda Darling-Hammond and Madlene Hamilton at Stanford University, as well as by Barry Pervin of the Ontario Ministry of Education, Michael Salvatori of the Ontario College of Teachers, and Samuel Zheng of the Toronto District School Board. We are also grateful to Gen Ling Chang, who served as an advisor to the project.

³⁸ Source: Speech on the occasion of a luncheon hosted by the Regina Public Library on May 16, 2005.
<http://www.gg.ca/media/doc.asp?lang=e&DocID=4443>.

³⁹ <http://www12.statcan.ca/census-recensement/2006/as-sa/97-560/p7-eng.cfm>

⁴⁰ <http://www12.statcan.ca/census-recensement/2006/as-sa/97-557/p2-eng.cfm>

⁴¹ <http://www12.statcan.ca/census-recensement/2006/as-sa/97-557/p11-eng.cfm>

elementary and secondary schools. The number of full-time equivalent teachers and administrators hovers around 121,000 and includes around 7,400 principals and vice-principals.⁴²

The education system in Ontario has traversed several major stages over the decades, leading to one of the top-rated education systems in the world today.

For about a decade beginning in the early 1990s, the education system in Ontario was characterized by significant labor disruption, public dissatisfaction, and poor morale leading to high turnover among teachers. In 2004, a new provincial government set an ambitious agenda for education, recognizing that a focused and sustained commitment to education and teaching is key to a strong and prosperous society. (Pervin and Campbell 2011)

In 2008, the Ontario Ministry of Education launched a campaign called Reach Every Student in an effort to continue to expand and improve the successes experienced in the academic sector in 2004, when major reforms were implemented. Three main goals served as the pillar of this new effort. The first goal was to increase student achievement outcomes in the areas of literacy and numeracy. Targets were set to have 75 percent of grade 6 students reach the provincial standards, and to graduate 85 percent of students in Ontario schools. The second main goal was to reduce the achievement gap of students who for any reason required additional assistance. The third goal was to increase public confidence in publicly funded education. A key strategy for achieving these goals was investment in professional capacity (Ontario Ministry of Education 2009).

The City of Toronto

The Toronto District School Board (TDSB) is the largest and most diverse school board in Ontario, and in Canada. In 2011, the TDSB was comprised of approximately 260,000 students, 16,000 teachers, and 591 schools.⁴³ Sixty-eight percent of all newcomers to Ontario—and 40 percent of all newcomers to Canada—live in Toronto.⁴⁴ Not surprisingly, then, the population of the Toronto schools is quite diverse: About 53 percent of TDSB students have a language other than English as their mother tongue or as the primary language spoken at home; more than eighty languages are spoken by Toronto's students. Approximately 26 percent of students were born outside of Canada.⁴⁵

RECRUITING TEACHERS

Teacher Supply

In general, Canada has a surplus of teachers, which has created an opportunity for school boards to be highly selective in recruiting teachers. This is a marked shift from the early 2000s, when retirement rates were high and most new education graduates could easily gain employment. In Ontario, retirement numbers have declined, and the number of opportunities available to unemployed teachers have also declined, while the

⁴² http://www.edu.gov.on.ca/eng/general/elemsec/quickfacts/2010-11/quickFacts10_11.pdf

⁴³ http://www.tdsb.on.ca/_site/ViewItem.asp?siteid=308&menuid=4721&pageid=4131

⁴⁴ <http://www12.statcan.ca/census-recensement/2006/as-sa/97-557/p11-eng.cfm>

⁴⁵ http://www.tdsb.on.ca/_site/ViewItem.asp?siteid=308&menuid=4721&pageid=4131

number of teachers graduating from initial teacher-education programs has continued to increase, creating a surplus of teachers and a highly competitive market.

In part, this shift may be because of the focused efforts on the part of the Ontario government to acknowledge teachers' importance and to respect the teaching profession. As Pervin and Campbell (2011) note:

Since 2004, the Ministry of Education has advanced an approach based on respect and professionalism for teachers, teaching practice, and teacher development. A defining feature is a commitment to collective capacity building at all levels of the education system. To create a sense of common purpose and cooperation among education stakeholders, the ministry initiated the Working Table on Teacher Development to provide an effective vehicle for policymakers, teachers, school boards, and teacher labor groups to share different perspectives. This led to the creation of a number of innovative teacher development programs for new and experienced teachers. (p. 25).

To underscore this respect for the profession, the provincial premier bestows annual awards for excellent teachers. The Premier's Awards for Teaching Excellence are given each May to "recognize educators and staff who excel at unlocking the potential of Ontario's young people," as the province's website puts it. Teachers are supported in using research to improve their practice and their schools, and they are recognized when their efforts succeed. Teachers can earn more as they gain expertise by completing additional qualifications that enhance their knowledge and skills in such areas as special education, English as a second language, and French as a second language.

Enthusiasm for teaching as a profession and slower hiring due to economic downturn have resulted in a recent teacher surplus. As a result of this surplus, Ontario has become an exporter of teachers to other provinces. The Ontario College of Teachers (OCT) Transition to Teaching survey reported in 2011 the following:

Almost one in three of the teacher education graduates of 2010 who sought teaching jobs during the 2010–11 school year were unemployed, with no success in finding even daily supply teaching during the first school year of their teaching careers. Only one in eight of them secured regular teaching jobs. And just one in three of those who were on the job market secured as much teaching work as they wanted....[O]ne in five first year teachers now look outside the province for their first teaching job.... And more first year teachers are now working in non-teaching occupations (22 percent) as an alternative when faced with a failed teaching job search or as a supplement to part-time teaching income.

A large majority (76 percent) of first-year teachers who land a teaching job report that they are well prepared for their assignment.

Competitiveness of Salaries

In Ontario, teachers' salaries are determined by each board through negotiation with the local teachers' federations. Teachers are placed on a salary grid, which is based on educational qualifications and years of teaching experience. The evaluation of educational qualifications is currently the responsibility of the Qualifications Evaluation Council of Ontario (QECO) and the Certification Department of the Ontario Secondary School Teachers' Federation (OSSTF). A teacher is given a salary-rating category (1 the lowest to 4 the highest) that is used by the school board to place the teacher on the salary grid. Teachers can improve

their rating category by completing approved university and/or additional qualification (AQ) courses (e.g., specialist qualification) in a combination acceptable to the evaluating body.

The salary grid provides for ten years of experience and four qualification categories. After ten years, salaries will only move if teachers have not already achieved the highest qualification level or through negotiated increases. In addition to their salary, teachers can also receive allowances for additional responsibilities, or for holding other credentials—for example, as subject department heads, or for holding a master’s degree. These allowances are locally negotiated, vary from board to board, and are outside of the funded grid.

In 2011, salaries for Ontario teachers with five years of university education (a degree with a teaching certificate) ranged between \$51,975 and \$88,259; the minimum salary ranks fourth among the ten provinces in Canada (excluding the three territories), and the maximum salary ranks second among the ten provinces.⁴⁶

In addition to offering competitive salaries, the government provides funding to support enrollment in pre-service programs. In 2009–10, the government provided approximately \$8,517 for each full-time teacher candidate to complete one year of pre-service education. This covers about 60 percent of the cost of training and is supplemented by tuition and fees that are regulated by the government and paid by the teacher candidate (e.g., from \$4,720 to \$5,940 for one year, as of 2008–9) (Pervin and Campbell 2011).

The Recruitment Pool and Criteria

In 2010, the vast majority (85 percent) of the teachers employed by the TDSB completed their teacher-education programs in Ontario, with the largest single contributor (35 percent) being the University of Toronto. Among beginning teachers with five or fewer years of teaching experience, 84 percent completed their teacher-education programs in Ontario (41 percent from the University of Toronto, 20 percent from York University, and 23 percent from other Ontario universities).

Teacher candidates are chosen based on their strengths and the needs of the board, such as teaching English language learners or French immersion programs. In general, candidates are evaluated against the competencies defined by the OCT’s Standards of Practice, shown below. New teachers are evaluated on eight out of sixteen competency statements based in three domains (Commitment to Pupils and Pupil Learning, Professional Knowledge, and Teaching Practice). The shaded competency statements are those that are used to evaluate new teachers. Experienced teachers are appraised on all sixteen competencies. In addition to the domains noted above, these include the domains of Leadership and Community and Ongoing Professional Learning.

⁴⁶ All dollar figures in this paper are in Canadian dollars. For more information about the teachers' contract, see: <http://www.bctf.ca/uploadedFiles/Public/BargainingContracts/U102-SalaryDocument.pdf>

Domain	Competency
Commitment to Pupils and Pupil Learning	<ul style="list-style-type: none"> • Teachers demonstrate commitment to the well-being and development of all pupils. • Teachers are dedicated in their efforts to teach and support pupil learning and achievement. • Teachers treat all pupils equitably and with respect. • Teachers provide an environment for learning that encourages pupils to be problem solvers, decision makers, lifelong learners, and contributing members of a changing society.
Professional Knowledge	<ul style="list-style-type: none"> • Teachers know their subject matter, the Ontario curriculum, and education-related legislation. • Teachers know a variety of effective teaching and assessment practices. • Teachers know a variety of effective classroom management strategies. • Teachers know how pupils learn and the factors that influence pupil learning and achievement.
Teaching Practice	<ul style="list-style-type: none"> • Teachers use their professional knowledge and understanding of pupils, curriculum, legislation, teaching practices, and classroom management strategies to promote the learning and achievement of their pupils. • Teachers communicate effectively with pupils, parents, and colleagues. • Teachers conduct ongoing assessment of pupils' progress, evaluate their achievement, and report results to pupils and their parents regularly. • Teachers adapt and refine their teaching practices through continuous learning and reflection, using a variety of sources and resources. • Teachers use appropriate technology in their teaching practices and related professional responsibilities.
Leadership and Community	<ul style="list-style-type: none"> • Teachers collaborate with other teachers and school colleagues to create and sustain learning communities in their classrooms and in their schools. • Teachers work with professionals, parents, and members of the community to enhance pupil learning, pupil achievement, and school programs.
Ongoing Professional Learning	<ul style="list-style-type: none"> • Teachers engage in ongoing professional learning and apply it to their teaching and practices.

Source: Teacher Performance Appraisal: Technical Requirements Manual 2010, Ontario Ministry of Education.

TEACHER PREPARATION

Ontario teachers generally complete three or four years of undergraduate study and a year of teacher pre-service education at a faculty of education at an Ontario university before becoming certified with the Ontario College of Teachers. Some programs integrate education courses with undergraduate studies over a four- to six-year period. Finally, some institutions have launched two-year master's degree programs that follow the bachelor's degree.

Expansion of two-year master's degree programs as preparation for teaching at both the elementary and secondary levels has been a major initiative of the Ontario Institute for Studies in Education (OISE)/University of Toronto (UT) since 2003. OISE/UT also offers consecutive (one-year, after the bachelor's) and concurrent (five-year) program models. In all cases, the programs are research-based and connected to schools. Most of the educational delivery is in cohorts that are designed to function as professional learning communities. In the master's level programs, teacher candidates undertake their own research as well as using research generated by others. The programs all seek to focus on equity, diversity, and social justice.⁴⁷

All pre-service education programs must be approved by the OCT, an independent body that was established through the Ontario College of Teachers Act of 1996 to accredit initial teacher-education programs in the province. In order to be accredited, programs must satisfy fifteen broad requirements, which are outlined in Ontario Regulation 347/02, Accreditation of Teacher Education Programs under the Ontario College of Teachers Act 1996. Programs are expected to do the following:

- reflect current research in teacher education
- integrate theory and practice
- reference the Ontario curriculum
- include theory, methods, and foundation courses
- offer a practicum that is at least forty days in length (the majority of universities include a practicum that exceeds the forty-day minimum)

Thirteen publicly assisted universities offer consecutive initial teacher-education programs, which are generally eight months in length and are completed after having obtained an undergraduate degree. Ten of these universities also offer concurrent initial teacher-education programs, where the one-year teacher-education program is done at the same time as a three- or four-year undergraduate degree (e.g., in arts, science, physical education, music), resulting in four or five years of study and two degrees. Two universities offer French-language programs. There are also certificate or diploma programs for Aboriginal teachers and technological education teachers, as well as two programs that lead to Master of Teaching degrees. Altogether there are fifty full- and part-time programs offered by eighteen institutions. All of these focus on initial entry credentials.⁴⁸

⁴⁷ <http://www.oise.utoronto.ca/ite/Home>

⁴⁸ http://reports.oct.ca/2011/en/stats_membership.html

Generally, applicants to pre-service programs must meet certain academic standards and may have to demonstrate other evidence of competency (e.g., entry interview, experience with children). A recent analysis of Canadian teacher education notes that “as admission to initial teacher education is very competitive in most programs, in some jurisdictions, students who are not admitted in Canada go to programs outside of the country, in Maine or New York for example, where more spaces are available” (Gambhir, Broad, Evans, and Gaskell, 2008, p. 14).

The process for becoming a teacher is determined at the provincial level, and all teachers must go through the same channels. While individuals can enter teaching from other professions, they must take the same training and course of study as other candidates. In a recent University of Ottawa study of beginning teachers, about one-third of newly hired teacher respondents reported that they had embarked on their teacher training as a career change.

The proportion of career changers in the TDSB could be about one in five: An analysis of the 2010 teacher background data from the OCT reveals that 17 percent of the TDSB teachers had a gap of five or more years between earning their teaching degrees and their first undergraduate nonteaching degrees, suggesting they might come into teaching from other professions; among these, about 8.4 percent had a gap of ten years or more between the two types of degrees. Some of them likely entered with other career experience of less than five years.

Feedback to Schools of Education

TDSB officials note that is common for some highly experienced TDSB teachers to affiliate with the two local universities to teach the teacher-education programs, and often, teacher candidates in the programs come to TDSB schools to complete their practicum and internship as part of the requirements of the programs. It is at this level that most of the feedback is given to the institutions about the strengths and weaknesses of the candidates and the overall teacher-education programs.

Although there are not formalized systems of feedback between the TDSB and the universities, some researchers have been soliciting feedback about teacher-education quality from principals and from new teachers themselves. In 2008, four faculties of education in Ontario (Brock University, Ontario Institute for Studies in Education [University of Toronto], Trent University, and Université Laurentienne) collaborated with the Ministry of Education to research the views of their graduates, other new teachers, and employers regarding teacher education in twenty-one school districts in Ontario (Herbert et al. 2010).

They sought teachers who had entered the profession between 2003 and 2007. Ultimately, 57 percent of the 826 teachers they surveyed had graduated from these four targeted faculties of education, 30 percent from other faculties of education in Ontario, and 13 percent from faculties outside Ontario. In addition, 314 principals in these districts responded to surveys of their views about the preparedness of new teachers and the quality of preparation they had received.

In terms of their preparedness to teach, just over half of the teachers in the survey rated their teacher-education preparation as “good” or “very good.” The practicum experience was more often rated highly (“good” or “very good”) than the coursework (83 percent vs. 53 percent). The researchers noted that teachers who had graduated from programs outside Ontario generally rated their programs more highly on integrating theory and practice, unless they came from one of the two programs offering a two-year postbaccalaureate degree. Graduates from programs outside Ontario—along with graduates from OISE/UT’s two-year master’s programs—also rated their preparation more highly for working with at-risk students and those with special

needs than did graduates of other Ontario programs. Master's degree graduates from OISE/UT also rated their programs as better at preparing them to understand child and adolescent development and to think critically and creatively about educational issues.

These results echoed those in another recent study on teacher education in Canada (Gambhir et al. 2008). These researchers noted that, as a province, Ontario has the shortest required practicum of any province in Canada (although many universities, including the University of Toronto, require more than the minimum), and that there are concerns that the traditional eight-month "consecutive" program (certification following a separate bachelor's degree) does not provide an adequate period of study and practicum training. Gambhir et al. (2008) note the following:

Depending on the university, candidates can spend anywhere from eight months to two years earning their B.Ed degree. One of the greatest challenges of the consecutive model is the intensity of delivering comprehensive courses and practical placements in the shorter programs (e.g., Ontario's eight-month degrees). Critics feel that more time is needed for development of teaching skills and knowledge than can be achieved in a short program. Another concern is the limited depth and breadth of topics that can be covered (p. 10).

In the Ontario survey, teachers' comments suggested they want more practicum time, and more emphasis on assessment, special education, and classroom management. The survey researchers noted that graduates felt more prepared to teach a wide range of students when they came from programs that spent more time in coursework and practicum on special education and cultural diversity issues (both were two-year master's programs). This suggests that teacher-education programming can make a difference in preparing teachers for the challenges they will face.

The principals who responded to the survey echoed these areas of need and added concerns for teaching students with different levels of preparedness. While generally reasonably satisfied with teachers' preparation (91 percent rated it "adequate," "good," or "very good"), when asked what could be improved, Ontario principals wanted to see more current teachers teaching in teacher-education programs, longer practica and more interaction over the practicum, and more emphasis on current issues, such as data-driven instruction, balanced literacy, and special needs.

We do not know the extent to which these province-wide findings pertain to teachers and principals in Toronto, but it is possible that a few of them are salient. It would be interesting for the TDSB to partner with scholars to conduct its own analysis of the preparedness of its new teachers from different institutions and program models, as seen through their eyes and those of their supervisors.

NEW TEACHER HIRING, MENTORING, AND INDUCTION

Teacher Hiring

All teachers who want to teach in Ontario must be certified and have membership with the OCT, which does the following:

- ensures Ontario students are taught by skilled teachers who adhere to clear standards of practice and conduct
- establishes standards of practice and conduct
- issues teaching certificates and may suspend or revoke them
- accredits teacher-education programs and courses
- provides for ongoing professional learning opportunities for members

The hiring of teachers in Ontario's publicly funded school system is the responsibility of district school boards. In September of 2012, the government of Ontario implemented a new regulation (274/12) on Hiring Practices. The new regulation establishes consistent hiring practices across the province by putting in place in all school boards' fair practices, including a minimum job-posting period of five days and opportunities for interview debriefings for unsuccessful interviewees. The recruitment process varies from school board to school board. The regulation requires that when a school board is holding interviews for a vacant position, they interview the five most senior applicants who meet the requirements of the job. They must also organize their occasional teacher and long-term occasional (LTO) teacher lists according to seniority. By using specified minimum experience and seniority provisions, the hiring-practices regulation is intended to ensure that applicants' teaching abilities are well known to the board.

In addition to their certificate of qualification from the OCT, candidates must submit an online application, a cover letter, and a resume. Experienced teachers must submit their teacher evaluation(s), and new teachers must submit practice teaching reports. Letters of recommendation are optional. The recruitment process calls for interviews, evaluations, and reference checks, and these requirements also serve as indicators of whether a teacher is eligible to hire.

Once on the list, candidates can apply for vacancies posted by schools. Principals can select as many qualified candidates as they wish from the "eligible to hire" list for interviews. Successful candidates are then recommended by school principals for the positions posted.

This hiring process interacts with the teacher transfer process. In March of each year, TDSB schools receive a count of teachers for the following year, based on student enrollment projections. By April 15, schools that have additional teachers above the projected number are declared in surplus. The school transfer process commences after the surplus declaration. Surplus teachers are encouraged to apply to posted vacancies, and those who did not acquire a position from the posting process are placed into remaining positions based on their credentials and preferences.

The New Teacher Induction Program

Ontario requires that all first-year new teachers hired to a permanent contract complete the New Teacher Induction Program (NTIP).⁴⁹ The program includes three components:

- an orientation to the school and school board
- ongoing mentoring by more experienced teachers throughout the first year
- professional development and training appropriate to the needs of new teachers

The program is designed to be completed in twelve months, but teachers have up to twenty-four months to meet the requirements. The principal is required to conduct two performance appraisals during the first twelve months. If the appraisals are not satisfactory, the teachers may have up to twenty-four months to improve. Once teachers complete this program, the OCT is notified within sixty days, and a notation is made on the teacher's record of certification.

In addition, all boards must offer all three induction elements of the NTIP (orientation, mentoring, and professional development) to their first-year long-term occasional (LTO) teachers. Long-term occasional teachers (e.g., substitute teachers) hold assignments that are a minimum of four months in length. For the purposes of the NTIP, a first-year LTO teacher is a certified occasional teacher in his/her first long-term assignment, with that assignment being ninety-seven or more consecutive school days as a substitute for the same teacher.

Boards of education may choose to extend NTIP supports to the second year for either permanent hires or LTO teachers.

In alignment with the NTIP, the TDSB provides support for mentoring and professional development, which include:

- Job Embedded Learning Initiative (JELI) for first-year, second-year and newly hired LTO teachers
- Job Associated Mentoring (JAM) for third- and fourth-year beginning teachers
- Demonstration classroom learning: focused observations, debriefing, action planning, and coteaching opportunities in various grades and subjects
- Summer orientation for new hires, including curriculum based professional learning
- Professional learning for mentors

The 2011 NTIP in Practice research study from the University of Ottawa found the following:

Beginning teachers across Ontario are confident in their own abilities as teachers responsible for supporting student learning. They are satisfied with their choice of profession; they intend to remain in the teaching profession and a large majority would like to remain in the same school.

⁴⁹ Ontario Ministry of Education. 2010. "New Teacher Induction Program: Induction Elements Manual." http://faab.edu.gov.on.ca/NTIP/NTIP-English-percent20Elements-2010_Web.pdf.

Mentoring

In the induction program, mentoring takes place for up to two years. In the TDSB, once new teachers complete the NTIP, there are additional supports that allow for mentoring up to the fourth year. While all novices are assigned a mentor, mentoring resources can be provided in different models, which may include, in addition to one-on-one mentoring, large- or small-group mentoring and team mentoring.

Mentor Selection

Schools/boards choose mentors in different ways. Mentors are colleagues of beginning teachers who are typically (but not always) teaching at the same school. Mentors volunteer for their role and/or are asked by their school administrator to support a beginning teacher.

The criteria as listed in the Induction Elements Manual (2010) suggest that a mentor must:

- be in good standing with the Ontario College of Teachers
- be an experienced teaching professional, skilled in working with both adults and students
- be knowledgeable and skilled in current curriculum and teaching/learning strategies
- have demonstrated skills in problem solving
- be an excellent role model of a teaching professional
- be open to the views and feedback of others and be a continual lifelong learner
- be an effective listener and communicator
- have effective interpersonal skills

Mentor assignments are expected to consider the following:

- timing to provide support upon or shortly after hire
- the nature of the school and the unique requirements of the board
- matching teachers with similar assignments
- matching teachers at the same school
- other staff demographics

Mentor Training

The Induction Elements Manual (2010) also lists components of the mentor training program. Mentor training is intended to be well structured and based on a curriculum that includes training in consulting, collaborating, and coaching; for example:

- how to develop a mentoring plan
- listening and building rapport
- sharing information and sources
- using appropriate language
- conferencing skills and providing meaningful feedback
- integration of mentoring activities and ongoing personal and professional development
- building capacity for high achievement
- assurance that confidentiality between mentors and new teachers is respected
- a clear and safe exit procedure for both mentor and new teacher in case of noncompatibility
- dealing with a teacher in crisis

The Mentoring Process

The mentorship relationship is intended to be supportive and not evaluative. The mentors are expected to provide guidance that fits the individual needs of the teacher and to develop the new teachers' internal capacity for learning and growth. This relationship is meant to be confidential and ongoing throughout the new teacher's first year of employment. Mentors do this via consulting (offering support and providing resources), collaborating (creating challenge and encouraging growth), and coaching (facilitating professional vision).

The NTIP allows for shared release time for mentors and beginning teachers to collaborate. Shared release time may be used for co-planning, classroom observation, and collaborative assessment of student work, among other things.

New Teacher Retention

Provincially, the 2011 Transition to Teaching study by the Ontario College of Teachers found that only 4.8 percent of the 2010 Ontario faculty of education graduates who received an Ontario teaching certificate that year did not renew their membership in the college in 2011, suggesting a retention rate of new teachers of over 95 percent within Ontario. This data does not necessarily indicate that the nonrenewing teachers have left teaching all together. New teachers who move elsewhere due to Ontario's oversupply may well continue to teach in another jurisdiction while not renewing their teaching licenses in Ontario.

As the table below illustrates, data collected by the TDSB demonstrates that very few beginning teachers actually leave the school board, let alone the teaching profession. Over the last five years, the TDSB has hired almost four thousand beginning teachers. This represents 25 percent of the entire teaching population of the board. Throughout the 2005–10 period, the TDSB retained over 98 percent of first-year hires annually. (See the table below.)

TDSB Retention of First-Year Teachers

	2005–06	2006–07	2007–08	2008–09	2009–10
# of First-Year Permanent Hires	1,240	1,239	1,061	670	467
# of Teachers Returning to the TDSB	1,218	1,223	1,051	666	462
Rate of Retention to the TDSB	98.23%	98.71%	99.06%	99.40%	98.93%

Source: Clark, Livingstone, and Smaller (2012).

PROFESSIONAL LEARNING AND CAREER GROWTH

As noted earlier, the Ontario approach to school reform has been built, at least since 2004, around a framework for capacity building. The framework assumes that professional learning is a means of empowerment for educators and is the engine for school improvement. As Pervin and Campbell (2011) note:

Central to the framework is the idea that effective and lifelong teacher development depends on teachers taking ownership for their learning and having the capacity to develop and renew themselves.

Teacher Professional Development

As with many nations across the globe, Ontario has focused over the last decade on preparing students to meet the demands of the twenty-first century. As part of the education policy goals that were launched in 2008, the government set out to deepen and widen foundational academic skills as measured through graduation rates, assessments, and other outcome measures. This commitment has driven both individual and collective professional development initiatives for educators.

The Ministry of Education has been looking at ways to assist teachers to meet new demands by developing a coordinated, coherent approach to the design and delivery of professional development. The goal is to ensure that teachers have access to timely, well-planned, high-quality professional learning activities tailored to the reality of their individual contexts and related to current education initiatives.

One aspect of this effort is an attempt to build on existing examples of effective practices that have been identified by education partners, in order to create a common understanding of what constitutes excellent professional learning. In addition, Ontario's teaching and leadership initiatives are monitored, evaluated, and modified based on research evidence and feedback from the field as it becomes available. In addition, the ministry supports the implementation of new and revised curricula with resources and training for teachers and administrators.

Professional development is provided to all teachers on an ongoing basis. Teachers working in Ontario's public school system receive six professional activity days (PA days) every school year to support them in their ongoing teaching duties, such as curriculum development, student evaluation, report writing, and meeting with parents. Two of the six days are devoted to prescribed topics identified by the Ministry of Education as key priorities for all schools and all teachers, such as closing the gap in student achievement.

New Teachers

Beyond the mentoring they receive, professional development for new teachers is tailored to their needs and experience levels and is provided throughout the year. The Induction Elements Manual outlines a list of professional development core content areas and expectations that should be made available to new teachers. These core content/expectations range from literacy and numeracy strategies to classroom management to specific areas practices related to working with special populations.

Examples of the learning modules available in the TDSB are "Small Group Learning," "Student Work Is the Work," "Aboriginal Voices," "Culturally Responsive and Relevant Pedagogy," "Culturally Responsive and Relevant Pedagogy in Kindergarten," and "Community Voice and Space."

New teachers in the TDSB are offered support from their Family of Schools and from their own schools. The professional learning sessions available at the school level also provide a variety of choices for new teachers

based on identified areas of interest. Some examples are “Supporting Special Needs Students in the Regular Classroom,” “Effective Use of Differentiated Instruction,” “How to Conduct Parent/Teacher Interviews,” “Making Classroom Assessment Work,” “Classroom Management,” “Teaching and Learning with Technology,” “Effective Feedback,” “Success Criteria, Learning Goals, Long Range Planning & Curriculum Design,” “Restorative Practices,” “Comprehensive Literacy & Numeracy (i.e. Higher Order Questioning and High Yield Strategies),” and “Report Card/Assessment.”

Veteran Teachers

For veteran teachers, there is also a view that professional development should be appropriate to teachers’ needs, and that differentiation should occur based on the teaching assignment, grade level, position type, and other assignment and experience markers that may be relevant. Professional development is ongoing and delivered in many ways, ranging from mentorships and working in teams to teleconferencing, podcasts, and in-service sessions.

In addition to allowances for individual teacher development, there have been many efforts in Ontario to support educator teams within and across schools as the engines for learning and improvement. The Ministry of Education has introduced a number of innovative approaches and initiatives to support student success and improve student learning. One such initiative involves teams of highly skilled, experienced teachers who provide direct on-the-job support to teachers in low-performing schools to facilitate the sharing of successful teaching and learning practices. Teachers acquire the knowledge and skills they need by working collaboratively with other teachers in a mutually supportive learning environment, and gain increased confidence in their ability to affect student achievement.

Teachers also have the opportunity to pursue additional qualifications on an ongoing basis to expand their knowledge and skills in subjects they are already qualified to teach, and to acquire knowledge in new subject areas. New courses offered by the Ontario College of Teachers reflect the evolution of the education environment and the concerns of OCT members. Examples include the following: “Aboriginal Peoples: Understanding Traditional Teachings, Histories, Current Issues and Cultures,” “Enseignement en milieu minoritaire” (minority education), “Philosophy,” “Special Education for Administrators,” “Teaching in the Catholic School System,” “Teaching and Learning through E-learning.”

System-Level Initiatives

Ontario thinks about professional learning as an activity that needs to occur at the system level in ways that promote learning across districts and schools, as well as within them. The Board Improvement Plan for Student Achievement process engages system-level thinking for improvement. The Student Achievement Division (SAD) of the Ministry of Education supports a culture of high achievement through this process. Ministry teams and board teams engage in collaborative discussions to share strategies and processes throughout the year.

The SAD has also developed partnerships with district school boards to foster a climate of trust and collaboration, so as to be able to zero in on more precise instructional and assessment practices at the school- and classroom-level. These practices are intended to enhance teaching and learning and to improve student achievement and engagement with an emphasis on students with the greatest needs and those in risk situations. The SAD supports collaborative learning teams and school-to-school networks to foster deeper teacher engagement in teaching and learning, and enriched student learning conditions, leading to improved student learning, achievement, and engagement.

A number of initiatives focus on collaborative inquiry. These were begun as pilot projects and increased incrementally. They now provide multiple entry points for all district school boards, including cross-district teams in the Collaborative Inquiry for Learning in Mathematics initiative, cross-school teams in the Early Primary Collaborative Inquiry, and classroom-based partnerships in the Student Work Study Teachers initiative. Also, many initiatives focus on providing targeted professional learning for educators, including school and system leaders, in a variety of forms and formats. Job-embedded professional learning with a focus on collaborative inquiry is pivotal in initiatives such as the School Support Initiative and Middle Years Collaborative Inquiry (Mathematics), as well as in the implementation of the overall Student Success Strategy.

Through such initiatives, teacher dialogue is anchored in an examination of the student learning that has occurred as a result of collaboration and planning. These processes are designed for teachers, school leaders, and district school board leaders to use, share, and leverage successful school-based practices in assessment, planning, and instruction in continuous cycles of collaborative inquiry. Schools and district school boards innovate through the process of collaborative inquiry as they spread effective practices beyond these initiatives based on their local context and needs.

The ministry has both encouraged school-to-school networking strategies and leveraged them further by identifying positive exemplars of schools that have initiated productive changes, so that other schools can visit them to see what successful reforms look like in action. Andy Hargreaves (2008, p. 25) noted of this approach:

Lateral support across schools is wedded to positive peer pressure as schools push each other to higher and higher standards of performance.

TEACHER EVALUATION AND PROFESSIONAL GROWTH

Teacher performance appraisal was first introduced as a legislated requirement in Ontario in 2002.⁵⁰ The Teacher Performance Appraisal (TPA) system⁵¹ is intended to provide teachers with meaningful appraisals that encourage professional learning and growth. The process is designed to foster teacher development and identify opportunities for additional support where required. Based on research and learning from the 2002 implementation process, an appraisal process for new teachers was approved in 2006, and a revised process for experienced teachers, based on feedback from a wide range of stakeholders, was introduced in 2007.

The key components of the TPA include a pre-observation meeting, classroom observation, a post-observation meeting, and a summative report. The principal is responsible for the appraisals, and vice-principals or supervisory officers may act as designates for the principal. New teachers are appraised twice within their first twelve months of employment and must achieve two “satisfactory” ratings in order to receive a notation on their certification of qualification record from the Ontario College of Teachers. Experienced teachers are normally appraised once every five years, although a teacher can be evaluated at any time if there is a performance concern. There are provisions for support and due process in cases where unsatisfactory performance results in termination of a teacher’s employment.

⁵⁰ This section is drawn substantially from Pervin and Campbell (2011).

⁵¹ <http://www.edu.gov.on.ca/eng/teacher/appraise.html>

The appraisals are based on sixteen competencies that reflect the standards of practice set out by the Ontario College of Teachers (presented earlier). New teachers are evaluated on fewer competencies than experienced teachers, as noted above.

Each year, experienced teachers must also complete an Annual Learning Plan (ALP), which outlines their plan for professional growth. In collaboration with their principals, teachers set growth goals, along with a rationale, a set of strategies, and an action plan for achieving them. In doing this they reflect on their previous performance appraisal, the prior year's professional learning, and input from parents and students. (See Appendix A for the TDSB Annual Learning Plan template for teachers.)

LEADERSHIP DEVELOPMENT

Ontario and Toronto have well developed systems at the province and district levels for identifying and cultivating leadership for schools. The province funds its seventy-two districts to develop a Board Leadership Development Strategy (BLDS), in which each board sets goals to address talent development and succession planning. These goals include strategies for recruiting and identifying leaders, as well as supports for self-identification. School boards are supported by the Institute for Education Leadership (IEL)—through a partnership between the ministry and the principal, supervisory officer, and director associations—in developing effective succession plans. In addition, there are many opportunities for teachers to take on both formal and informal leadership roles that allow them to test their own interest and capacity for leadership.

Experiences to Identify and Encourage School Leaders

Through the BLDS in each district, aspirants to leadership roles have opportunities to complete self-assessment checklists based on the Ontario Leadership Framework (OLF),⁵² which outlines what good, researched-based leadership looks like. The identified leadership skills are often tied to positive outcomes in student achievement and well-being. Teachers also have opportunities to: engage in professional learning activities about leadership and management; job-shadow a practicing leader; take on an acting vice-principal role for a temporary period of time; join new leaders in group-mentoring activities; and take on formal leadership roles, like department headships, literacy leads, division leads, school-success leads. Ontario also provides opportunities for leadership development to experienced teachers who plan to remain in the classroom and wish to take on peer leadership roles. The TLLP has three goals: 1) to support teacher professional learning, 2) to foster teacher leadership, and 3) to facilitate sharing of exemplary practices.

Teachers are invited to submit proposals to receive funding for innovative, self-chosen learning projects, which they undertake either individually or within a group. Proposals must occur within the context of ministry, board, and/or school goals to enhance student learning. Professional learning projects may involve a range of activities in the areas of expertise of the experienced teacher/group. These could include projects that support current research, as well as innovative approaches that challenge current thinking by presenting alternate methods that may be effective in improving student outcomes.

⁵² The Ontario Leadership Framework 2012 identifies the practices of successful school and system leaders, as well as the organizational practices of successful schools and districts. In addition it includes a small but critical number of personal leadership resources (traits and dispositions) that have been found to increase the effectiveness of leadership practices. It is based on leading-edge research conducted and compiled by Dr. Kenneth Leithwood.

All participants in the program must attend a “Leadership Skills for Classroom Teachers” professional development session, which will help them develop the skills that are necessary to effectively manage their project, and the “Share the Learning Summit,” where they are able to share their learning with colleagues. The participants then apply these leadership skills as they share their expertise of exemplary practices with colleagues. The program funds resources, release time, and travel costs needed to meet the goals of the project.

The Ontario Leadership Strategy

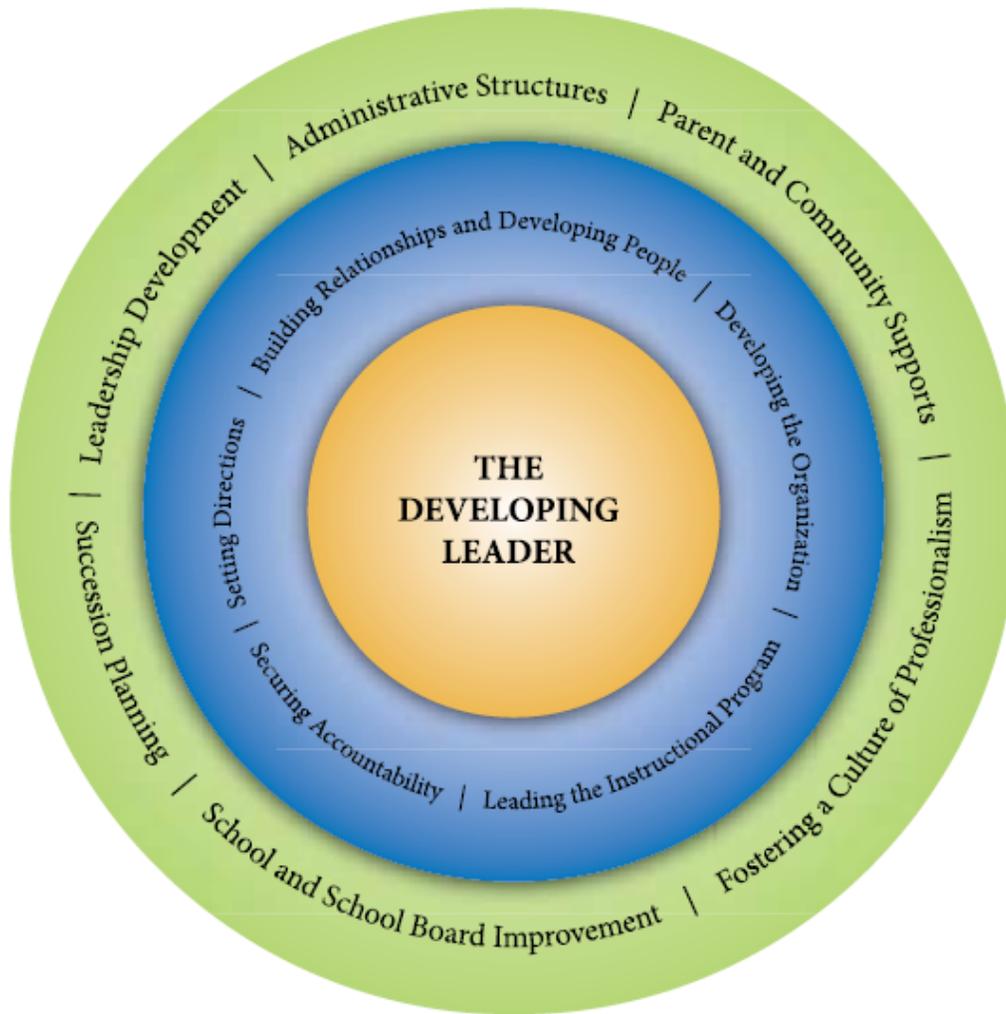
In 2008 the Ontario Leadership Strategy (OLS)⁵³ was launched to attract talented people into leadership roles and to assist with their continued development once they assumed the role. Leadership is seen as a supporting condition for achieving the provinces’ three goals: 1) increase student achievement, 2) reduce the achievement gap, and 3) increase public confidence in publicly funded education. Because the OLS is founded on the research-based OLF (mentioned above and illustrated below), there is an intentional link between leadership practice and student achievement in all development activities.

The OLS focuses on three objectives:

- to attract the right people to leadership roles
- to develop personal leadership resources in individuals and promote effective leadership practices in order to have the greatest possible impact on student achievement and well-being
- to develop leadership capacity and coherence in organizations to strengthen their ability to deliver on education priorities

The leadership framework is a voluntary tool to guide leadership practice. Its purpose is to promote a common language that fosters an understanding of leadership and what it means to be a school and system leader, to make explicit the connections between leaders’ influence and the quality of teaching and learning, and to guide the design and implementation of professional learning and development of school and system leaders.

⁵³ <http://www.edu.gov.on.ca/eng/policyfunding/leadership/actionPlan.html>



The Ontario Leadership Framework⁵⁴

Training for the Principalship

In Ontario, all principals and vice-principals must attain appropriate qualification by completing the Principals' Qualification Program (PQP). The program is accredited by the OCT and consists of two parts, each totaling 125 hours, plus a practicum. The program is provided by faculties of education and by principals' associations. The PQP is structured around the Ontario Leadership Framework. In addition to completing the PQP, principals must have an undergraduate degree, five years of classroom experience, qualifications in three divisions of the school system, and a master's or double-subject specialist degree.

⁵⁴ Leadership Development: Ontario Leadership Strategy, <http://www.edu.gov.on.ca/eng/policyfunding/leadership/actionPlan.html> (accessed January 26, 2011).

Aligning with the Ontario Leadership Framework for Principals and Vice-Principals, the TDSB has created a principal/vice-principal rubric for the board's leadership competencies, organized by the five domains of the provincial framework:

- *Setting Direction*: vision building
- *Building Relationships and Developing People*: communication, conflict management, decision making, problem solving, and relationship building and networking
- *Developing the Organization*: change management, continuous growth, creativity, culture management, empowerment, inclusionary perspective, integrity, professional accountability, regulations/policies/procedures, staff growth and development, and team leadership
- *Leading the Instructional Program*: assessment and evaluation, curricular leadership, equity, information communication technology, instruction, and safe and caring schools
- *Securing Accountability*: community development and school improvement

TDSB teachers who wish to apply to a vice-principal/principal position must be members in good standing of the Ontario College of Teachers and must have completed both parts of the PQP. For a principal position, they also need two years' experience as a vice-principal or as a district-wide coordinator. Before finalizing their decision to apply for a vice-principal or principal position, potential applicants are required to complete a Notice of Intent to Apply form to alert their principals and superintendents of their interest in applying and thus to allow time for a discussion of their readiness. The applicant's superintendent must sign the Notice of Intent to Apply to confirm this discussion has taken place. The superintendent will establish a meeting with potential applicants to meet them and to review the Principal/Vice-Principal Selection Process Rubric. The board also provides a Leadership Growth Track Program for candidates considering application to vice-principal and principal positions.

All principals and vice-principals are offered mentoring for their first two years in each role,⁵⁵ which is funded by the ministry and delivered by school boards according to ministry guidelines. Features of the mentoring program include training for mentors, a learning plan outlining how the mentor and mentee will work together, and a transparent matching and exit process to ensure a good fit between mentor and mentee.

Building System Capacity for Leadership Development

The first phase of implementation of the OLS focused on supporting districts to develop the infrastructure to begin implementation of OLS initiatives like mentoring, appraisal, and talent development. The next phase is focusing on supporting districts, through the BLDS, to assess implementation so far and measure the impact of their activities to ensure that they are using high-yield strategies that are strengthening the quality of leadership in their districts.

The province collects data on an ongoing basis about various components of the OLS to ensure that the right supports are in place and are making a difference in leadership development across the province. In 2010–11, a comprehensive evaluation of the OLS was undertaken with the guidance of Dr. Kenneth Leithwood. Findings indicated that districts were making good progress in implementation of the OLS, and that they valued the supports provided. A follow-up review was conducted in 2012, working with a third-party consultant, to gain a deeper understanding of the impact that the district BLDS activities are having. Early results are positive.

⁵⁵ <http://www.edu.gov.on.ca/eng/policyfunding/leadership/mentoring.html>

In addition to these external evaluations, each district has completed an annual self-assessment of its progress of implementation of strategies along a continuum. These self-assessments, together with the results from direct surveys of new and experienced leaders, have confirmed that a good infrastructure for leadership development is in place in all districts, and that the development opportunities and supports that are offered are preparing and supporting aspiring, new, and experienced leaders. A new impact assessment and planning tool has been introduced this year and will provide additional data with regard to the impact that the BLDS is having.

In addition to supports and training provided through the OLS, there are additional supports for leadership development that are provided by program branches across the ministry—for example, the Literacy Numeracy Secretariat, the Student Success: Learning to 18 Branch, the Curriculum and Assessment Branch, and the Learning Environment Branch. These branches incorporate the OLF into professional learning opportunities on specific content areas. This helps to bring coherence to leadership development across ministry initiatives.

Finally, almost all school and system leaders in Ontario belong to professional associations—such as the Ontario Principals’ Council or the Ontario Catholic Supervisory Officers’ Association—and these associations provide professional learning activities for their members that complement and support ministry initiatives. The government works closely with these associations through the aforementioned Institute for Education Leadership (IEL), a partnership that includes representatives from each of the nine professional groups along with the ministry. The IEL provides leadership supports for districts through an effective-practice website; it commissions research on leadership that is shared with members; and it develops implementation strategies for various ministry policies and programs.

Leadership Succession Planning

Districts use the BLDS to develop and implement succession planning strategies. Effective succession practices that have been developed by districts over the past several years are shared across the province through regional sharing sessions, Adobe Connect sessions, and in the Impact Assessment and Planning tool. Districts are required to include a human resources representative on their BLDS steering committee, so that issues of forecasting supply and demand, setting up recruiting and selecting processes, and assessing readiness of candidates are considered when planning development activities for aspiring leaders.

When districts self-assess using the planning tool, some of the impacts of their BLDS that they are asked to consider include the following criteria:

- the number of candidates ready to assume each leadership role is sufficient to meet current and future demand
- school improvement efforts have been enhanced or at least maintained as a result of changes in district leadership
- schools that are most in need of improvement have benefited from effective transfer and placement decisions
- transfer and placement decisions have successfully matched leader strengths to school needs across the district

Districts are asked to share with the ministry their projections with regard to the following:

- future leadership needs
- how many participants they have in each of their leadership development programs
- how many “ready” candidates they have for each type of leadership position
- what they are doing to address any gaps that may exist

CONCLUSION

Toronto has benefited from and augmented Ontario’s proactive approach to teacher and leadership development. The city and province have developed a learning orientation to educational practice that permeates all aspects of these increasingly interlocking systems. As Pervin and Campbell (2011) note, the approach to professional capacity building in this context has been characterized by the following:

- a shared understanding of the importance of setting clear goals for high standards of achievement, so as to enable students of all abilities and backgrounds to achieve their potential
- a respect for teachers as professionals who are committed to developing their practice through collaborative inquiry and differentiated instruction, so as to achieve excellent results for their students
- supportive instructional leadership from school principals and district leaders within a coherent framework that is focused on the classroom and inspired by students

Continuous efforts to evaluate and improve the professional development and learning systems are paying off in strengthening the attractiveness of the profession, as well as the practitioners’ success with students.

Appendix A

2011–12 Annual Learning Plan (ALP)

The purpose of the Annual Learning Plan (ALP) is to provide a meaningful vehicle to support experienced teachers' professional learning and growth in the evaluation year and for the intervening years between appraisals. The ALP is teacher authored and directed, and is developed in a consultative and collaborative manner with the principal.

ALP Requirements

- Experienced teachers are required to have an ALP each year that includes their professional growth goals, as well as their proposed action plan with timelines for achieving those goals.
- Teachers who move from the new teacher's appraisal process to the experienced teacher's appraisal process must develop an ALP in their first year as an experienced teacher.
- Each year, teachers are required to consult with their principal to review and update, as necessary, their ALP. This review and update must take into account the teacher's learning and growth over the year, as well as the professional growth goals and strategies recommended through the summative report of the teacher's most recent performance appraisal.
- In an evaluation year, teachers must review and update their ALP in a meeting with their principal as part of the performance appraisal process. The pre-observation and post observation meetings provide opportunities for this review and update to take place.
- In the non-evaluation years, a meeting is not required but is recommended. If at any time during these years the teacher or principal requests a meeting to discuss the ALP, then a meeting shall take place.
- The teacher and the principal must both sign the teacher's ALP each year and retain a copy for their records. Under certain circumstances, the duties of the principal as outlined above may be delegated to a vice-principal in the same school or to an appropriate supervisory officer (refer to section 6, "Scheduling Requirements").

Growth Goals and Strategies

- The growth goals and strategies identified by the teacher should be relevant to his or her professional needs and focus on improving his or her teaching practice and student learning.
- Growth-oriented professional dialogue between the teacher and principal can help identify the growth goals and strategies for the teacher's continuous learning and development to include in his or her ALP.
- Parent and student input can also help inform the teacher's ongoing professional learning and teaching practice.

Annual Learning Plan (ALP) for Experienced Teachers (Sample Form)

The purpose of the Annual Learning Plan (ALP) is to provide a meaningful vehicle to support experienced teachers' professional learning and growth in the evaluation year and the years between appraisals. The ALP is teacher-authored and -directed, and is developed in a consultative and collaborative manner with the principal. For further information, refer to section 8 of the *Teacher Performance Appraisal Technical Requirements Manual* (2010).

Teacher's Last Name

Teacher's First Name

Principal's Last Name

Principal's First Name

Name of School

Name of Board

Description of Teacher's Assignment (grade(s), subject(s), full-time/part-time, elementary/secondary, etc.)

Background to Inform Professional Growth Goals, Action Plan, and Timelines

Recommended professional growth goals and strategies from the summative report of my most recent performance appraisal:

Professional learning and growth that I have experienced over the past year(s):

Reflections on parental and student input to inform my professional learning and teaching practice:*

*Note: Teachers are encouraged to consider parental and student input to inform their professional learning and teaching practice. This is not a mandatory component.

Professional Growth Goals	Professional Growth Strategies to Help Reach Goals	Rationale for Professional Growth Goals and Strategies	Action Plan and Timelines

Other Comments (Teacher)

Other Comments (Principal)

Date of Next Review and Update of the Annual Learning Plan

Date (yyyy/mm/dd)

Principal's Signature

My signature indicates that the teacher consulted with me to review and update the Annual Learning Plan.

Date (yyyy/mm/dd)

Teacher's Signature

My signature indicates that I reviewed and updated the Annual Learning Plan in consultation with my principal.

Date (yyyy/mm/dd)

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