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<tr>
<td>Author(s)</td>
<td>Oon Seng Tan</td>
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A Singapore Perspective on Teacher Education: The Old Man, the Mountain, and the Child

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Abstract

Teacher development in Singapore is unique from the continuum approach from initial teacher education to life-long professional development where goal congruence and pragmatic policies and practices amongst university, schools and the Ministry of Education help steer the teaching profession towards high standards and commitment. Teaching is a calling and effective teachers have a unity of purpose in their personal aspirations, beliefs, interests and competencies with a view of impacting the next generation and a system of evaluation and accountability builds on (a) Learner-centred values, (b) Teacher identity values (c) The values of service to the profession and community. The challenges of diverse societal expectations, impact of rapid educational transformations and balancing accountability measures and autonomous professional trust will also be addressed.

The Old Man represents the wisdom of traditions. In the case of Singapore the traditions are the fundamentals. In the case of teacher education at the National Institute of Education, the fundamentals include things like teaching as calling, good content knowledge, the teacher symbol, values-based ideals, the university-based professional, apprenticeship model. The Mountain represents looking up and beyond, which means vision and viewing the big picture and long haul approach rather than politicised or quick fixes. The mountain reminds us of mould the teacher to mould the child for the future. Vision calls for the partnership of MOE, schools, NIE and the community. It calls for visionary professional building. Finally the idea of the Child is that it takes a village to prepare a child because teacher education is about the learner. It is preparing the teacher to care of even the most diverse and weakest child.

Introduction

Education is a social phenomenon that is not static. Along with globalization and information communication technology, facets of the educational system, like teaching and learning, must also be updated and enhanced. Teaching and learning are the school’s main core business and responsibility. School activities and resources are augmented to ensure that both tasks are applied successfully with teachers and students benefitting. On the same page, various innovations in curriculum and pedagogy are regularly developed to keep up with the fast-changing world. These changes have transformed the trend and profile of students, as well as created new needs in the knowledge and technology areas and the modified role and function of schools making them more challenging than before. Scholars, such as Goodwin (2010); Rong & Preissle (2009) have argued that at least three new norms are currently influencing the education system. First, new norm will be classrooms that are more and more diverse, almost regardless of where they are. Second, teachers can expect to work alongside colleagues who are not recruited locally, or they themselves may be the one responding to regional or international searches to fill teaching shortages. Third, teachers will be instructing children who are not only diverse but may enter the
classroom with very unique and challenging needs. From an operational perspective, quality curriculum and effective instruction are the key elements to ensure that successful teaching and learning in schools are achieved. Quite extensively, it has been written that the main drivers in making these efforts more fruitful are the teachers. But not just any teacher. For schools to realize these goals, the presence of committed and passionate educators is a prerequisite. More importantly, the kind of teaching that is offered must adhere on the values of professionalism, integrity and excellence.

Teachers, being the most significant resource in schools, are critical in raising the education standards of an economy such as Singapore. In large measure, improving the efficiency and equity of schooling depends on ensuring that teachers are highly skilled, well resourced, and motivated to perform at their best. Raising teaching performance is perhaps the policy direction most likely to lead to substantial gains in student learning (OECD, 2005). In turn, the effective monitoring and evaluation of teaching is central to the continuous improvement of the effectiveness of teaching in a school. It is essential to know the strengths of teachers and those aspects of their practice which could be further developed. From this perspective, the institution of teacher education is a vital step in the drive to improve the effectiveness of teaching and learning and raise educational standards.

The Old Man

Despite the small geographic size of the nation, Singapore economy is one of the most prosperous in the world. Not only does it ranks as the best country in the world to do business, Singapore has also been highlighted as a high performing education system with features that other systems could learn from. These include high-quality principals and teachers, as well as strong leaders with bold long-term visions. OECD also noted that there is a strong link between education and economic development, as well as between policy and implementation in Singapore. By continuously investing on the upgrade of its education system, its curriculum is well-developed with rigorous standards aligned to instruction and assessment. Singapore places a great deal of importance to its educational system by continuously investing for its development and upgrade. In 2010, there was an increase of 14.1% budget over 2009 providing a total of $9.91 billion. The total projected expenditure of MOE in FY2011 is $10.91 billion, which is 10.1% higher than the revised FY2010 expenditure. Of the total expenditure, $9.77 billion or 89.5% is for operating expenditure and $1.14 billion or 10.5% is for development expenditure.
Knowing that teacher quality made the largest difference in student achievement, the most effective school systems invested in the professional and personal development of their educators. While student achievement in Singapore is undeniably the result of many factors – high levels of parent engagement and enormous national will to excel in core academics among them – it could not occur without a corps of extremely efficient and skilled teachers. Through a deliberate and comprehensive strategy, Singapore has developed this teaching corps. Given the statistics, one may observe that Singapore is serious in this education business. Why not, its investments have paid off well. For the past five years, Singapore has ranked among the top four countries in the world on the Trends in International Mathematics and Science Study (TIMSS) science and math tests and the Progress in International Reading Literacy Study (PIRLS) reading test. National assessments tell a similar story. Ninety-eight percent of Singaporean students passed their sixth-grade “leaving” exam in 2009. In 2007, McKinsey & Co. released a study recognizing Singapore as one of the top performing educational systems in the world. The said report highlighted three important factors that set top 10 performing school systems apart: (1) getting the right people to become teachers; (2) developing them into effective teachers; and (3) ensuring that the system is able to deliver the best possible instruction for every child. Its universities are at par with the world’s best. According to a survey by Quacquarelli Symonds (QS), both the Nanyang Technological University (NTU) and the National University of Singapore (NUS) have improved on their positions in a global ranking of universities in 2011. NTU shot up 16 places to take 58th position while NUS moved up three spots to 28. QS is a company that provides information on higher education and career choices.
According to the OECD (2011, p. 172):

Singapore is both a “rapid improver” and a “continuing high performer”. To those who believe that large-scale change in educational performance is not possible, Singapore has shown several times over that significant change is possible. Singapore has developed a high-quality system in terms of educational retention, quality and efficiency.

Most leaders and policymakers know that for a nation to succeed we need to encourage members of the society to achieve their full educational potential. With governments gearing up to prepare their citizens for the knowledge-economy, greater responsibility has been placed on education institutions to meet the challenges brought by globalisation and a dynamic technological society (Lee, 2009). At the conclusion of the UN Millennium Summit on 8 September 2000, 189 Heads of State signed the Millennium Declaration which stipulated eight goals to be achieved by year 2015, universal education included. Singapore, being one of the countries who believe in the power of education, was one of the countries that initialed the declaration. Likewise, OCED Programme for International Student Assessment (PISA) results reveal that political and social leaders in high performing systems persuade citizens to make choices that substantiate the value of education more than other things. According to Professor Andreas Schleicher, the belief in the possibility for all children to achieve success plays a significant role. Tan (2003 and 2010) also claimed that the nature of education and its curricula has implications not only for the quality of life but also for national education and the creation of national wealth.

Since 1950, teacher education in Singapore has been defined by its relevance, responsiveness to changing local and global educational landscapes and is committed to ensuring the highest standards of quality and excellence (National Institute of Education, 2009). Educational developments are geared towards responding to the economic and social needs of the people and have continued to keep abreast of the latest technological innovations. But beyond just the economic pursuit of developing individuals, Singapore tries to maintain an educational system that adopts a holistic approach that preserves national culture, identity, values rooted in family and community (Lee, 2009).

Teachers, being the most significant resource in schools, are critical in raising the education standards of an economy such as Singapore. In large measure, improving the efficiency and equity of schooling depends on ensuring that teachers are highly skilled, well resourced, and motivated to perform at their best. Raising teaching performance is perhaps the policy direction most likely to lead to substantial gains in student learning (OECD, 2005). Teacher education in Singapore attempts to engage education with its multifaceted challenges by a matrix of connectivity and alignment allowing for a balance of autonomy and optimal monitoring and resourcing. Teacher education builds on MOE’s well-grounded vision on education, which is the vision for Singapore to become a nation of thinking and committed citizens capable of contributing towards Singapore’s continued growth and prosperity, and capable of becoming creative thinkers, lifelong learners, and leaders of change. There is a well-balanced ‘autonomy versus standardization’ framework in guiding MOE, NIE, and the schools in their practices (See
Each plays a distinct yet harmonizing role in achieving the desired outcomes of education.

Figure 1. Enhanced Partnership Model

![Diagram of Enhanced Partnership Model]


Having recognized that the quality of teachers determines the quality of education, a strong strategic partnership is needed between the key stakeholders (NIE, 2009). The collective strength of the three establishes long-term and sustained cooperation and collaboration. The Enhanced Partnership Model aims to provide the necessary collaborative framework of share values and goals which are aligned to a unified outcome. It gives support as beginning teachers transition from campus to schools, while enhancing the continued learning and professional development pathways available to the teaching workforce. In the same vein, NIE initiated a new Model of Teacher Education for 21st Century (TE21) in its endeavour to develop a strong teaching force for the 21st century (National Institute of Education, 2009). TE21 presents recommendations that are intended to enhance the key elements of teacher education, including the underlying philosophy, curriculum, desired outcomes for teachers, and academic pathways.

The new V3SK model (Figure 2), which stands for values3 (V), skills (S), and knowledge (K), underscores the requisite knowledge and skills that teachers must possess in meeting the challenges of the 21st century classroom. The V3SK model represents the underpinning philosophy of teacher education at NIE. The three value paradigms of V3SK are:

- **Learner-centred values** which put the learner at the centre of teachers’ work by being aware of the learner’s development and diversity, believing that all learners can learn, caring for one another, striving for scholarship in content teaching, knowing how people learn best, and learning to design the best learning environment possible.
• *Teacher identity values* which refer to having high standards and strong drive to learn in view of rapid changes in the education milieu and to being responsive to students’ needs.

• *The values of service to the profession and community* which focus on teachers’ commitment to their profession through active collaborations and striving to become better practitioners to benefit the teaching community.

**Figure 2. V^3SK Model**


**The Child**

Meaningful teacher evaluation involves an objective appraisal of the effectiveness of teaching, its strengths and areas for improvement, followed by feedback, coaching, support and opportunities for professional development. It is also essential to celebrate, recognize and reward the work of teachers. Demands for instructional quality have led many countries to set up one form or another of teaching performance assessment. Scope and methods of teacher evaluation, criteria and standards used and data gathering instruments differ largely form one country to another, according to the educational context and tradition, the actors involved in the design and implementation of the evaluation system and the purpose of evaluation emphasized. The purpose of this paper is to look at Singapore’s policy on teacher evaluation. It will attempt to examine the competency-based approach adopted by this top-performing island-city.

Teacher evaluation has two major purposes. One the one hand, it is aimed at ensuring that teachers perform at their best to enhance student learning. On the other, it seeks to improve the teacher’s own practice by identifying strengths and weaknesses for further professional
development. These two approaches refer to assessments of different nature, respectively summative and formative. As the term applies, summative evaluation has its aim the development and use of data to inform summary judgments of teachers. A school principal observes teachers in action, works with them on committees, examines their students’ work, talks with parents, and the like. These actions, aimed at least in part at obtaining evaluative information about teachers’ work, inform the principal’s decision to recommend teachers either for continuing a teacher’s contract or for termination of employment. Summative evaluations are used for initial licensure, hiring, promoting, rewarding, and terminating decisions. In contrast, formative evaluation consists of practices meant to shape, form, or improve teachers’ performances. Supervisors observe teachers, collect data on teaching behavior, organized these data and share the results in a panel with the teachers observed. The intent of which is to give feedback and help teachers improve their way of teaching.

In 2000, Singapore’s Ministry of Education (MOE) decided on revamping its existing teacher evaluation system and substituted it with a more comprehensive approach. To satisfy this, the Ministry engaged a United States based firm called The Hay Group to undertake a fundamental review and develop a competency model for Singapore education system. The review aimed to ensure that the educational system of Singapore is able to meet the needs of the country in the twenty-first century as well as support the “Thinking Schools, Learning Nation” vision. Over 3,000 teachers participated in the MOE review and provided feedback and comments through focus group discussions, surveys, and committees. It was in the late 1990s when the “Thinking Schools, was developed with the objective to prepare Singaporean students to face a future of intense global competition and rapid changes. The vision for Singapore’s educational system includes major revisions to the curricula and pedagogy to teach creating thinking, develop lifelong learning skills, foster diversity of talents, introduce collaborative learning, and encourage greater use of information technology. Like the developments in countries such as the United States and United Kingdom, the MOE believes that teacher quality affects educational quality as much as curricula and that the performance appraisal system plays a key role in improving teacher quality.

The MOE review instituted three main changes aimed at strengthening the ability to attract, retain, motivate, and develop good teachers in the Singapore educational system. These changes are imbedded in a packaged called Education Service Professional Development and Career Plan (Edu-Pac) where a range of initiatives are offered: a new career structure, a new recognition structure and enhancements to the performance management system.

Edu-Pac included an Enhanced Performance Management System (EPMS), a tool to help officers develop professional and improve their competencies. The EPMS represented an important shift from focusing teacher evaluation on observable characteristics, such as subject matter expertise, classroom management, and instructional skills, to emphasizing the underlying characteristics, or “competencies”, that lead to exceptional performance. The development and measurement of individual competencies are used in conjunction with achievement of performance outcomes to evaluate, career track, promote and pay teachers. It spells out the knowledge and skills requirements as well as professional characteristics appropriate for each of the 3 tracks. The system was launched in 2001, rolled out for school management in 2003 but fully implemented in 2005.
When Singapore’s MOE uses the term ‘competencies’, however, it is referring specifically to the underlying traits and habits – patterns of thinking, feeling, acting, or speaking – that cause a person to be successful in a specific job or role. Because different jobs have different demands, the competencies that contribute to outstanding performance differ as well. For example, being an outstanding teacher requires a different set of competencies than those for an outstanding principal. Competencies are categorized according to degrees of competence, described as “Levels”. Level 1 provides for the basic competence requirements, while Level 5 caters for the most advance. Validating the competencies necessary for a particular role, as well as the levels of increasingly successful behavior within each competency, is possible if developers are willing to invest in the underlying research.

Changes within the Singapore Educational System

A. Career Paths: Teaching, Leadership and Senior Specialist

Singapore has a robust career ladder system that was introduced and continues to be refined in an effort to enhance teacher effectiveness and ensure that the highest performing teachers have incentives to stay in the profession. Indeed their efforts are supported by research. Repeatedly, studies across sectors suggest that high-performing employees are more likely to stay in a profession if they have opportunities to advance their careers, and if they are generously compensated for their excellent work.

In the series of changes Edu-Pac introduced, the first change was the development of three career paths for teachers with different abilities and aspirations, namely, the teaching track, the leadership track, and the senior specialist track (see Figure 1). Each offers teachers the opportunity to earn greater stature, responsibility and pay. The primary focus for teachers on the teaching track is to achieve teaching excellence in the classroom. The MOE will help facilitate the improvement of the professional development and career advancement opportunities of teachers. The leadership track grooms teachers to take on leadership positions in schools (e.g. principals and heads of departments) and at the MOE headquarters. On the senior specialist track, teachers are developed to be experts in curriculum and instructional design, educational psychology and guidance, educational testing and measurement, and research and statistics. These specialists will work at the MOE headquarters and support all schools. Successful implementation of the different career tracks is a challenging task and depends critically on whether the knowledge, skills, and professional characteristics applicable for each career track could be identified and reliably assessed. The nature of teaching work and educational administration is complex ambiguous, and comprises many intangible aspects, which makes it hard to identify and evaluate effective teacher characteristics and behaviors.
All of these tracks have salary grades that are designed to provide all educators (teachers, leaders, and specialists) with an incentive to advance as far as they can. For example, a senior teacher, can receive a salary equivalent to a school vice principal, therefore, there is no need for excellent teachers to depart from their career to earn higher pay. The performance of the Education Officer is ranked (A through E) in comparison with colleagues at similar substantive grade. The annual Performance Bonus is linked to the ranking, with outstanding classroom teachers eligible to earn up to two months performance bonus. The PB is paid in March each year for the work done in the previous year. The Ministry of Education also announced the provision of S$3,000 per school for a new “Outstanding Contribution Award”. The school-based award would see all employees eligible for the S$2,000 team award and S$1,000 individual award, acknowledging “significant value-added contribution impacting in the school”.

In any of the career tracks, progression involves meeting work targets and demonstrating increasing levels of competencies. Every year, teachers use their year-end review forms to indicate their career aspirations. Supervisors also have an opportunity to weigh in on the direction they think should pursue. It is indicated in the review form, supervisors rate teachers on their “current estimated potential,” which is the highest grade they think that a teacher can
achieve prior to retirement. Current estimated potential provides a formal way for supervisors to
take on additional responsibilities within teaching, or those who are strong enough in the
required competencies to move to a different career track if they decide. While subjective, this
evaluation is based on discussions with teachers, observation, and student performance data, as
well as each teacher’s contribution to the school and community.

Tied to the levels within each career track are specific competency levels to show both teacher
and supervisor what comprises the next level of competence as well as what determines
outstanding competence. Attached at the back of the work review is a description of the
competency levels. An official from MOE said that during the review process, the competencies
are “defined, highlighted, discussed, reviewed, and evaluated with the aim that the competencies
can be manifested and nurtured in the teachers.

The process of identifying the preferred track involves three work review meetings: performance
planning, performance coaching and performance evaluation. In performance planning, the
teacher starts the year with self-assessment and develops goals for teaching, instructional
innovations and improvements at the school, professional development and personal
development and meets with his/her reporting officer who is usually the head of Department for
a discussion about target setting, performance benchmarks, and professional development needs.
Performance coaching takes place throughout the year and more so during a formal mid-year
review where the reporting officer meets with the teacher to discuss progress and share needs
and to coach and provide feedback and support. In performance evaluation held at the end of the
year, the reporting officer conducts the appraisal interview and reviews actual performance
against planned performance. A performance grade is given and this would affect the annual
performance bonus received for the year’s work. It is also during the performance evaluation
phase that decisions regarding promotions to the next level are made based on “current estimated
potential (CEP)”. The decision on a teacher’s current CEP is made in consultation with senior
staff who has worked with the teacher, based on “observations, discussions with the teacher,
evidence of portfolio, and knowledge of the teacher’s contribution to the school and
community.

Teaching Track

The Teaching Track caters to the majority of officers in the Education Service. The Teaching
Track provides improved professional development advancement opportunities for excellent
teachers. The peak appointment on the Teaching Track is “Master Teacher”, appointed from
amongst Senior Teachers. Master Teachers continue to teach and help develop teaching
excellence through mentoring, developing good teaching practice and model lessons. Master
Teachers earn the equivalent to a senior Head of Department. Teachers on the Teaching Track
have opportunities to advance professionally through advanced diploma and higher degree
programs and other forms of professional development. Teachers moving up to the higher levels
are required to meet thresholds in terms of skills and knowledge and have to demonstrate the
necessary competencies and performance for the higher job level.
The Singapore competency model for teaching consists of one core competency, “Nurturing the Whole Child,” and four other major competency clusters, “Cultivating Knowledge”, “Winning Hears and Minds,” Working with Others,” and “Knowing Self and Others.” Each cluster has two to four competencies. For example “Knowing Self and Others” has four key competencies: tuning into self, personal integrity, understanding others, and respecting others (see Figure 2). The competencies are broken down further into progressive levels of more effective behaviors based on the high-performer interviews and these are used as rating scales. Each level includes descriptions of the specific behaviors a teacher should demonstrate at a particular level of mastery (see Table 2). This teaching competency model forms the bedrock of Singapore’s EPMS. Recognizing that the quality of its teaching force is vital to its success, MOE developed this system to promoted increasingly high levels of performance, even from teachers who are already excellent. Officials of the ministry tasked on hiring and school leaders tasked on leading teachers use the competency model in conjunction with the achievement of performance goals at each stage of employment to:

- Hire and train aspiring teachers;
- Set annual competency achievement targets;
- Evaluate competency levels throughout the year;
- Match each teacher to a career path; and
- Determine annual bonuses.

Table 2. Summary of Teaching Competency Clusters

<table>
<thead>
<tr>
<th>Core Competency</th>
<th>Description</th>
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<tbody>
<tr>
<td>Nurturing the Whole Child</td>
<td>The Core Competency is at the heart of the Teaching Competency Model. It is central to the role of the teacher. It embodies a set of strongly held beliefs that are rooted in the unshakeable values about the whole child: morally, aesthetically, physically, intellectually and socially.</td>
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<thead>
<tr>
<th>Cultivating Knowledge</th>
<th>Effective teachers are motivated by a desire to facilitate the learning process and to instill in children the love for learning. They keep themselves updated of issues and make sound decisions based on the ability to identity opportunities and anticipate problems. They gather information on the school and students' performance and best practices, and use the most effective instructional strategies and approach to ensure that all students are fully engaged.</th>
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<tr>
<td>Subject Mastery</td>
<td>In order to make a significant impact on performance, teachers, need to understand how people, the school and the wider Education Service work and relate to one another. They must keep up with professional developments in their field, and judiciously apply new education theories and practices to the classroom.</td>
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<tr>
<td>Analytical Thinking</td>
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<tr>
<td>Initiative</td>
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<td>Teaching Creatively</td>
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<tr>
<th>Winning Hearts and Minds</th>
<th>Effective teachers work collaboratively with others to support the achievement of educational outcomes for the students and the school. This involves understanding and valuing different individual interests and concerns, knowing that they are important in achieving education excellence.</th>
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<tbody>
<tr>
<td>Understanding the Environment</td>
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<td>Developing Others</td>
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<tr>
<th>Working with Others</th>
<th>There are the emotional competencies that are important for personal development. It is the capacity to recognize one's own feelings and the feelings of others and manage one's emotions and relationships with others. This can help an officer grow in his job and improve his relationships with others at work (e.g. supervisor, peers, students and other stakeholders).</th>
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<tr>
<td>Partnering Parents</td>
<td></td>
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<tr>
<td>Working in Teams</td>
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<tr>
<th>Knowing Self and Others</th>
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<tbody>
<tr>
<td>Tuning into Self</td>
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<tr>
<td>Personal Integrity</td>
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<tr>
<td>Understanding Others</td>
<td></td>
</tr>
<tr>
<td>Respecting Others</td>
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Source: Ministry of Education
**Leadership Track**

A Leadership Track is provided for those choosing leadership positions in schools and the Ministry. Utilizing the Edu-Pac approach, Heads of Department with heavier responsibilities are allowed to be promoted to a higher level based on a job grade. Special allowances and increased responsibility allowances are also available.

**Figure 5. Leadership Competency Model**

![Leadership Competency Model](image)

Source: Ministry of Education, Singapore

Besides knowledge and skills, leaders need to possess competencies which enable them to exhibit outstanding performance in their jobs. The Leadership Competency Model is a set of competencies that are identified to be essential for the Leadership Track. To become more effective in their jobs, leaders can use the competency model to identify their strengths and weaknesses as areas for continuous learning and professional growth. The Leadership Competency Model was developed through research based on what outstanding and typical leaders do in their schools and community. In coming up with the model, in-depth interviews, focus group discussions and questionnaires were conducted on a representative sample of schools across different levels (i.e. Primary, Secondary, Junior College). The model has 13 competencies on how teachers will be assessed. Officers will be assessed on 9 performance-related competencies, i.e. the Core competency – Visionary Leadership and all the competencies in the Leading and Inspiring, Visioning for the Future and Managing People competency...
clusters. The remaining 4 competencies, i.e. *Tuning into Self, Personal Integrity, Understanding Others and Respecting others*, which form the base cluster in the competency model, will not be used for assessment purposes. Nevertheless, these emotional intelligence competencies are still considered important for self-development. These are inner qualities that officers should develop and use for self-reflection.

Table 3. Summary of Leadership Competency Clusters

<table>
<thead>
<tr>
<th>Core Competency</th>
<th>Visionary Leadership is at the heart of the Leadership Competency Model and is central to the role of the leader. It describes how leaders go about championing the vision of the organization, ensuring its continued relevance, and developing and inspiring others to live the vision.</th>
</tr>
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<tbody>
<tr>
<td>Leading and Inspiring</td>
<td>Effective leaders in the Education Service achieve educational outcomes by leading and inspiring their team. They demonstrate the ability to understand the implications of the wider organizational structure, culture, and climate on their role. They know how to persuade and influence others to work with them to achieve operational effectiveness. They work successfully with and through others in their team, leading and developing them.</td>
</tr>
<tr>
<td>Visioning for the Future</td>
<td>The dynamic nature of the wider environment and its implications on the achievement of educational outcomes implies that leaders play an increasingly critical role in visioning for the future. Their ability to lead through ‘out of the box’ thinking, in getting to the heart of matters quickly, and taking action proactively as the situation demands will be critical to their success.</td>
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<tr>
<td>Managing People</td>
<td>Leaders ensure that their staff are aware of the goals and expectations of management. They also delegate appropriate responsibility, authority and accountability to them, and provide support as required, and provide performance feedback. An effective leader is one who can point the way and enable others to go about their tasks, thereby giving them the support to surpass themselves.</td>
</tr>
<tr>
<td>Knowing Self and Others</td>
<td>These are the emotional intelligence competencies that are important for personal development. It is the capacity to recognize one’s own feelings and the feelings of others, and to use that understanding to motivate oneself and manage one’s emotions and relationships with others. This can help an officer</td>
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In the Ministry of Education, the Senior Specialist Track is offered to develop a strong group of officers with deep knowledge and skills in specific areas to “innovate, break new ground and keep Singapore at the leading edge in educational developments.”

Four areas of specialization are identified: Curriculum and Instructional Design; Educational Psychology and Guidance, Education Testing and Measurement, and Research and Statistics.

Figure 6. Senior Specialist Competency Model

Apart from skills and knowledge, Senior Specialists need to possess competencies which enable them to exhibit outstanding performance in their job. There are 13 competencies in the Senior Specialist Competency Model. Officers will be assessed on 9 performance-related competencies, i.e. the Core-competency – Professional Mastery and all the competencies in the Pursuing Excellence, Breakthrough Thinking and Leading for the Future competency clusters. The remaining 4 other competencies, i.e. Tuning into Self, Personal Integrity, Understanding Others and Respecting Others, which form the base cluster in the competency model, will not be used for assessment purposes.
Table 4. Summary of Senior Specialist Competency Clusters

<table>
<thead>
<tr>
<th>Core Competency</th>
<th>Professional Mastery</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Professional Mastery is at the heart of the Senior Specialist Model and is central to the role of the Senior Specialist. It is the drive to build up technical and professional expertise, not only for personal advancement in knowledge but also to equip oneself with leading and cutting-edge knowledge for application to improve the Education Service.</td>
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| Pursuing Excellence        | This cluster involves the drive to achieve and improve on standards especially with a focus on the needs of the stakeholder. This involves understanding and valuing the stakeholder’s interests and concerns, and the amount of proactive actions taken to meet the stakeholder’s long term issues and needs. Central to this cluster is the need for all Senior Specialists to abide by a professional code of ethics, basing all decisions and recommendations on the objectivity of appropriate data and robustness of methodologies. |
|                            |                                                                                                                  |
|                            | Pursuing Excellence                                                                                             |
|                            | • Drive for Improvement                                                                                         |
|                            | • Stakeholder Focus                                                                                             |
|                            | • Intellectual Integrity                                                                                       |
|                            | • Flexibility                                                                                                   |

| Breakthrough Thinking      | In order to achieve Professional Mastery, a set of thinking skills are required of the Senior Specialist. The Breakthrough Thinking cluster emphasizes not only the importance of the ability to analyze situations of varying complexity but also the ability to appreciate and adapt to different and opposing perspectives. |
|                            |                                                                                                                  |
|                            | Breakthrough Thinking                                                                                           |
|                            | • Analytical Thinking                                                                                           |
|                            | • Conceptual Thinking                                                                                           |

| Leading for the Future     | This cluster is two-fold: firstly, it involves getting people on board to deliver expert knowledge and support to stakeholders of the Education Service. Here, the Senior Specialist’s understanding of team members is essential. This involves engaging and leading team members, and gaining their support in order to achieve desired goals. Secondly, having built an internal team, the Senior Specialist’s understanding of stakeholders enables them to know the key influences within the particular environment and to tailor their actions strategically to achieve the desired outcomes. |
|                            |                                                                                                                  |
|                            | Leading for the Future                                                                                         |
|                            | • Impact and Influence                                                                                         |
|                            | • Developing Others                                                                                             |

| Knowing Self and Others    | These are the emotional intelligence competencies that are important for personal development. It is the capacity to recognize one’s own feelings and the feelings of others and to use that understanding to motivate oneself and manage one’s emotions and |
|                            |                                                                                                                  |
|                            | Knowing Self and Others                                                                                         |
|                            | • Tuning into Self                                                                                              |
|                            | • Personal Integrity                                                                                           |
|                            | • Understanding Others                                                                                         |
|                            | • Respecting Others                                                                                            |

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relationship with others. This can help an officer grow in his job and improve his relationship with others at work (e.g. supervisor, peers, students and other stakeholders).

Source: Ministry of Education, Singapore

B. Reward Structure

The second change was the adoption of a reward structure that provided more competitive remuneration as well as a stronger link between pay and performance. In narrative form, supervisors must note how well teachers performed during the year as part of the year-end review. Supervisors describe the strength of the teachers, unique skills, areas of improvement on both the competency ratings and other work performance goals, work-related challenges, and their “current estimated potential”. Along with the teacher’s own written assessment, these narratives are used to determine whether individual teachers will receive performance bonus and how much they will receive. For the process to be fair and impartial as much as possible, “a countersigning official (a person at a higher grade than the teacher being evaluated) will be asked to provide additional inputs on the teacher’s performance.

At the end of the year, school committee made up of all heads of departments within the school, the principal and the vice principal meets to discuss and determine staff bonuses. The committee deliberates each teacher’s year-end review, rank each teacher on a forced ranking scale, and decide on the award amount. Typically, these bonuses ranged from a half-month’s salary, for performance that exceeds expectations in few areas, to four month’s salary, for outstanding performance in multiple areas. According to a Straits Times article, approximately 5 to 10 percent of the teachers across the country are typically deemed outstanding, thus qualifying for the top bonuses. Furthermore, the committee also decides in this meeting whether to recommend individual teachers for advancement within a particular track or to move to a different track if they wish to do so. While the school-level panel makes the initial recommendation, ultimately, the MOE has the final approval for these promotions. Progressing to the next salary grade is not automatic. Evaluation of teachers must include evidence that they have increased their competence and attained their other performance goals in multiple areas.

These high-stakes decisions regarding performance bonuses and advancement opportunities can be controversial. In countries such as the Unite States, performance-based pay or merit pay for teachers is a highly contentious area, with many teachers objecting to tying performance appraisal to pay. Proponents of performance-based pay argue that rewarding teachers for good performance helps to attract, retain and motivate teachers. Tomlinson (2000) observes that performance-based pay is about motivating people, and developing performance-oriented cultures. Teachers, who are not motivated by financial rewards, can be encouraged with non-financial rewards. These rewards can include, for example, satisfaction from high student achievement, recognition, influence, learning new skills, and personal growth. School-based rewards is seen by its proponents as a means of providing motivation by introducing clear goals to the whole school, and facilitating student achievement. However, critics voice concerns over the fairness of merit pay plans given the difficulties of assessing teaching performance, the
potential negative effects on cooperation amongst teachers, and the potential negative effects on
the morale of teachers who are not eligible for merit pay. Given the opposing arguments, there
is a need to look at how Singaporean teachers view the performance-based framework.

C. Revamping of the Performance Appraisal System

The third change was a revamp of the performance appraisal system to improve the assessment
of teachers. Assessment of teachers needs improvement to support the professional development
of teachers along the different career tracks as well as to link rewards to good performance. The
new performance appraisal system is the “glue which binds the other two components of”
changes resulting from the MOE review. As such, the performance appraisal system for
Singapore teachers fulfills both summative (i.e. accountability and administrative decision-
making) and formative (i.e. developmental and feedback) approaches. Research shows that
schools in Western countries generally support formative appraisals over summative. There
are also those who want to isolate the two teacher evaluation approaches into different systems.

The old performance appraisal system in Singapore was standardized for all teachers, with a
focus on evaluating teachers for leadership and management positions. The new performance
appraisal system is customized for teachers on different career tracks. The MOE defines
personal attributes and behaviors necessary for outstanding long-term performance in each career
track to help teachers plan their career development.

Conclusion

Perhaps the most striking feature of Singapore’s teacher education and the process that produced
it is the comprehensiveness of the system. Despite the enormous will and expense it must have
taken to design and fully implement this teacher education system, the country got the job done.
Singaporean schools and teachers have access to a world-class, research-based set of
competencies that are correlated with performance on outcome goals. Implementation varies
from school to school, but all schools use performance outcome goals – including student
learning results – along with competency ratings to determine teacher promotion and pay.
Performance goals include soft measures of student development, including children’s health and
general welfare.


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