Enhancing Teachers’ Competencies through Professional Development: The Singapore Journey

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Outline of Presentation

• Singapore’s Education System
• Teacher Professional Competencies
• Key Stakeholders in PD
• Modes of PD
• Future Opportunities – Reimagining Teacher PD
Phases of our economic development...

Survival Driven
• 1959 – 1978

Efficiency Driven
• 1979 – 1996

Skills/Capital-Intensive

Ability-Based, Aspiration Driven
• 1997 – 2011

Knowledge-Based

Innovation-Driven

Student-Centric, Values Driven
• 2012 onwards

A Key Role of Education is to Support our Economy...

- People are Singapore’s only natural resource
- Education prepares our children for an increasingly uncertain and globalised world
- Close coordination to develop these connections

... and is reflective of some enduring truths

... While also Fulfilling the Aspirations of our Children

- Helping children be the best that they can be
- Multiple pathways for success, customised programmes from schools
Multiple Pathways to Success

Primary School (6 years)

Primary School Leaving Examination

GCE O-Level / N-Level

GCE A-Level / Other Qualifications

Secondary Schools (4 – 5 years)

Specialised Schools (4 years)

Specialised Independent Schools (4 – 6 years)

Integrated Programme Schools (4 – 6 years)

ITE (2-3 years)

Junior College (2 years)

Polytechnic (3 years)

Degree

University (3 – 4 years)

Primary- Funded Schools (4 – 6 years)

Specialised Independent Schools (4 – 6 years)

Integrated Programme Schools (4 – 6 years)

Secondary Schools (4 – 5 years)

Specialised Schools (4 years)

Special Education

Alternative Qualifications

Degree, Diploma, Skill Certs

Lifelong Learning

Degree

Work & Life
Student-Centric, Values-Driven Education

Breadth
1. Broad and Inclusive Approach
2. Broad and Holistic Education

Length
1. Lifelong Learning
2. Learning for Life

Depth
1. Deep Values and Deep Connection
2. Deep Foundation for learning

A **Broad & Deep** Foundation for a **Lifelong** Journey

Future-ready citizens with a **joy of learning** and entrepreneurial **dare**, and who are **rooted in values**
The demands on student learning in the 21st century have profound implications for teachers and teaching... teacher and teaching quality are key to the success of an education system

Schleicher, 2016
Teacher Professional Competencies

• Teacher Growth Model
Teacher Recruitment

- Shortlist
- Interview with lesson presentation
- Contract teaching
- Initial Teacher Education @ NIE
- Beginning Teachers
Enhancing Teacher Competencies through PD

What matters most?

30% of achievement variance can be attributed to teachers

When we focus on teachers, our students succeed.

Hattie’s 8 Mind Frames for Teachers (Hattie, 2012)
Teacher Growth Model

21st Century Teacher Outcomes

- The Ethical Educator
- The Competent Professional
- The Collaborative Learner
- The Transformational Leader
- The Community Builder

Every Teacher, A Gem
<table>
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<tr>
<th>The Ethical Educator</th>
<th>The Competent Professional</th>
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<tr>
<td>Living Out Ethos of the Teaching Profession</td>
<td>Mastering Self</td>
<td>Deepening Knowledge and Practice in Academic Curriculum</td>
<td>Deepening Knowledge and Practice in Student Development Curriculum</td>
<td>Learning as a Team</td>
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<td>Professional Ethics (e.g., code and conduct)</td>
<td>Self-Knowledge</td>
<td>Curriculum</td>
<td>Learners and Learning</td>
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<td>Ethics in/across Subject Discipline</td>
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<td>Ethical Leadership and Culture</td>
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Key Stakeholders in PD

- 3-Track Career Structure
- Roles of Various Leaders in PD
- Seven Academies and Language Centres
- Strong Tripartite Relationship among MOE, NIE, & Schools
A career progression that takes into account officers’ aspirations.
The Teacher Leader is a role model for teacher leadership and high professional standards in living out the Ethos of the Teaching Profession.

“Teachers do not only have a central role to play in improving educational outcomes, they are also at the centre of the improvement efforts themselves.”

Impact of Teacher Leaders

School Level
- Senior Teachers

School & Cluster Levels
- Lead Teachers

Zonal & National Levels
- Master Teachers/Principal Master Teachers

Pedagogical Leader
- Champion of Ethos

Instructional Mentor
- Professional Learning Leader

Academy of Singapore Teachers
lead, care, inspire.
Our PD Philosophy

*Teacher ownership, teacher leadership* is about teachers, driven by a sense of mission, exerting intentional influence to achieve an enhanced state of professional excellence within a climate of trusting and supportive relationships.
Key Personnel and Teacher Leaders Support PD

**SCHOOL LEADERS AND MIDDLE MANAGERS**
- Create structures and conditions for PD
- Plan and role-model PD expected of leaders

**SCHOOL STAFF DEVELOPERS (SSDs)**
- Champion PD
- Design and plan PD for teachers
- Coach and mentor teachers

**SENIOR/LEAD TEACHERS**
- Focus on mentoring programmes for teachers
- Lead PD as content & pedagogical experts
- Lead PLC teams in schools to improve student learning
Seven Academies and Language Centres

The academies and language centres drive and support the professional learning of teachers to enhance professionalism and pedagogical excellence.
Strong Tripartite Relationship among MOE, NIE, and Schools

- MOE HQ
  - Research
  - Policy
  - Programmes
  - Practice

- National Institute of Education

- Schools

Modes of PD – What Works and How

• Attributes of Effective PD
• Instructional Mentoring
• Teacher Induction Framework
• Learning Communities
Attributes of Effective PD

- Job-embedded PD
- Sustained and collaborative PD
- Relevant and authentic PD
- Active learning


PD is Embedded in the Daily Practice of Teaching

1. PD is “central to teachers’ jobs... about improving student learning... schools”.

2. Structure PD around a three-stage improvement cycle of “assess, develop, evaluate”.

3. Develop PD leaders to plan for and facilitate learning of others and ensure teachers have adequate time for PD.

**Findings on PD in Singapore**

Building a teacher-led culture of professional excellence centred on the holistic development of the child

- **Key Modes**
  - Mentoring
  - Learning Communities
  - Courses

- **Supporting Policies**
  - Developing and articulating the roles of PL leaders
  - Evaluation and accountability of PL
  - Time created for PL

Mentoring as an Effective Mode of PD

**TALIS 2013** Singapore has the youngest teaching force among TALIS countries

- Deepen the knowledge and practice of beginning and less-experienced teachers, and develop them to be Competent Professionals
- Create a positive, supportive teaching experience for the mentees

- Establish high standards of teaching practice in our school system
Growing Effective Mentoring in schools

Strong mentoring culture in Singapore schools

- Create supportive structures to support mentor-mentee lesson observations and regular conversations.
- Promote same-subject alignment between mentor and mentee, increasing effectiveness of mentorship

% of teachers who serve as mentors and % of teachers in schools where subject field of mentor and mentee is the same

- Serve as mentor: Singapore 39, TALIS Average 14
- Subject field of mentor and mentee is the same: Singapore 85, TALIS Average 68
Instructional Mentoring Programme

An exploratory study of mentoring practices in Singapore (OER 06/16 LEL)

- To understand mentoring practices in Singapore schools

<table>
<thead>
<tr>
<th>Examples from mentees’ survey</th>
<th>IMP (n=45)</th>
<th>Non-IMP (n=218)</th>
<th>Asymmp. Sig. Value (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willing to listen to my rationale</td>
<td>152.16</td>
<td>127.84</td>
<td>.038**</td>
</tr>
<tr>
<td>Able to make time to drop by</td>
<td>152.01</td>
<td>127.87</td>
<td>.042**</td>
</tr>
<tr>
<td>Reviews goals with me</td>
<td>163.20</td>
<td>125.56</td>
<td>.002**</td>
</tr>
<tr>
<td>Conversation focuses on lesson planning</td>
<td>153.64</td>
<td>127.53</td>
<td>.029**</td>
</tr>
<tr>
<td>Conversation focuses on actual lesson implementation</td>
<td>153.70</td>
<td>127.52</td>
<td>.027**</td>
</tr>
<tr>
<td>A willingness to learn is essential in ensuring professional growth</td>
<td>153.90</td>
<td>127.48</td>
<td>.024**</td>
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Teacher Induction Framework

- Introduction To Teaching (ITP)
- Teachers’ Compass Ceremony (TCC)
- Pre-service Engagements
- Beginning Teachers’ Orientation Programme (BTOP)
- Mentoring and Beginning Teachers’ In-Service Courses
- Beginning Teachers’ Symposium (BTS)

Journey into the 3rd year as an Experienced Teacher

**Learning Communities**

**Practitioner Knowledge**
Subject content, pedagogical content, and contextual knowledge of members

**Public Knowledge**
Knowledge from theory, research, and good practices elsewhere

**New Knowledge**
New knowledge that is created together through collaborative work and inquiry
Learning Communities

**Examples:**
- Geography Chapter
- Primary Math Chapter
- Primary Learners
- Low Progress Learners

**By subjects & learner profiles**

**By Professional Roles**

**By Professional Interests**

**Examples:**
- Assessment Literacy
- Learning Study
- Science Practical Skills

**Professional Learning Communities (School-based)**

**Examples:**
- Lead Teachers-Senior Teachers Networks
- Master Teachers Network
- School Staff Developers Network

Professional Learning Teams within schools
Professional Learning Communities (PLCs) in Schools

School Goals

3 Big Ideas
4 Critical Questions

Learning Team
Learning Team
... Learning Team

Coalition Team

- **PD for PLC Facilitators**
  Typically teacher leaders facilitate and lead the learning of PLCs. PD in facilitation, data-driven conversations and teacher inquiry are provided to help PLC facilitators

- **Time-tabled Time**
  Collective engagement in lesson planning, reflection, and professional learning

Study on PLCs in Singapore schools (AFR02/16TLS)

- examined PLC practices and developed tools to help schools in the self-assessment of their PLCs
- 1777 teachers in 20 randomly-selected schools were surveyed (some were interviewed); data analysed against Hipp & Huffman’s five dimensions of PLCs

- Shared and supportive leadership
- Shared values and vision
- Collective learning and application
- Shared personal practice
- Supportive conditions

Structure of Subject Chapters in AST

Example: Chemistry Chapter

The core team consists of
1. Master Teacher
2. Academy Officer
3. Senior and Lead Teachers
4. CPDD & ETD Representatives
5. NIE Representative

Networked Learning Communities (NLCs)
Networked Learning Communities (NLCs) across Schools

Relatively large proportion of teachers participate in collaborative professional learning practices.

- 81% of teachers in Singapore agree to the statement: "Collaborative school culture characterised by mutual support." (TALIS Average: 79%)
- 94% of teachers in Singapore agree to the statement: "Took part in collaborative professional learning." (TALIS Average: 84%)
- 80% of teachers in Singapore agree to the statement: "Observed other teachers' classes and provided feedback." (TALIS Average: 55%)

% of teachers who agree to the following statements

Academy of Singapore Teachers lead. care. inspire.
Future-Ready PD for Future-Ready Teachers

- Digital PD content and tools
- Just-in-time, on-demand PD; micro-learning
- Flipped learning, collaborative video analysis
- Blended PD approach
- In-situ PD
- Demonstration classes
Future Opportunities

- Reimagining Teacher PD
- SkillsFuture
Transformation of Our Teaching Profession

- **Professional Identity:** “I in my classroom”
- **Organisational Culture:** Ministry-driven system of excellence
- **Professional Identity:** “I in a community”
- **Organisational Culture:** Teacher-driven culture of professional excellence
A national movement to provide Singaporeans with the opportunities to develop their fullest potential throughout life, regardless of their starting points.

Four Key Thrusts

- Help individuals make well-informed choices in education, training, and careers
- Develop an integrated high-quality system of education and training that responds to constantly evolving needs
- Promote employer recognition and career development based on skills and mastery
- Foster a culture that supports and celebrates lifelong learning
Towards a Nation of Lifelong Learners

- Support upskilling and reskilling of workforce through SkillsFuture
  - Future economy will see frequent technological disruptions and continual need for job redesign
  - To keep pace and sustain Singapore’s economic growth, skills development efforts must continue throughout life

Integrated Lifelong Learning Ecosystem

- Develop an integrated high-quality system of education and training that responds to industry needs
  - Design and deliver industry-relevant training through closer industry collaborations
  - Help working adults choose their learning pathways