



Ministry of Education
SINGAPORE

Enhancing Teachers' Competencies through Professional Development: The Singapore Journey

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Ministry of Education Singapore



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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**

Evolution of Singapore's Education System

Phases of our economic development...



Industrialisation

Survival Driven
• 1959 – 1978



Skills/Capital-Intensive

Efficiency Driven
• 1979 – 1996



Knowledge-Based

Ability-Based, Aspiration Driven
• 1997 – 2011



Innovation-Driven

Student-Centric, Values Driven
• 2012 onwards



Wong, S. H. (2011). Education policies and practice in Singapore schools. In E. L. Low (ed.) *Paving the Fourth Way – the Singapore Story*. Singapore: NIE.

... and is reflective of some enduring truths

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

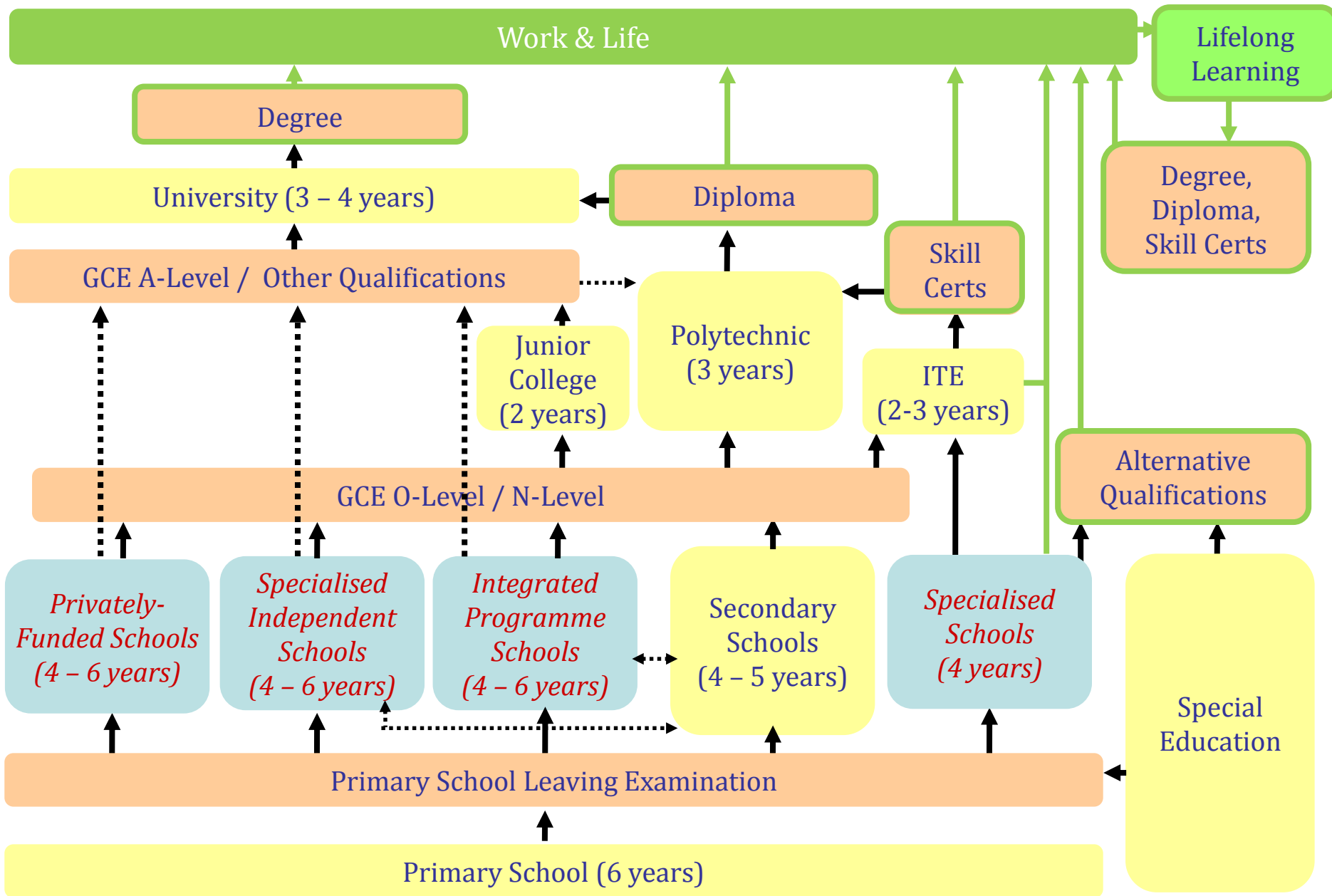
- People are Singapore's only natural resource
- Education prepares our children for an increasingly uncertain and globalised world
- Close coordination to develop these connections



... 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



Student-Centric, Values-Driven Education

Breadth

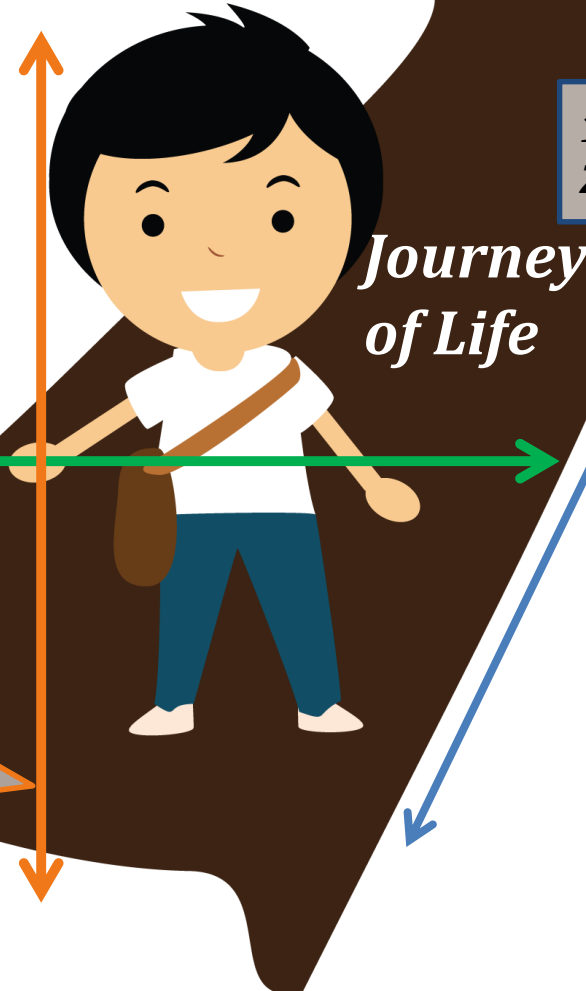
1. *Broad and Inclusive Approach*
2. *Broad and Holistic Education*

Length

1. *Lifelong Learning*
2. *Learning for Life*

Depth

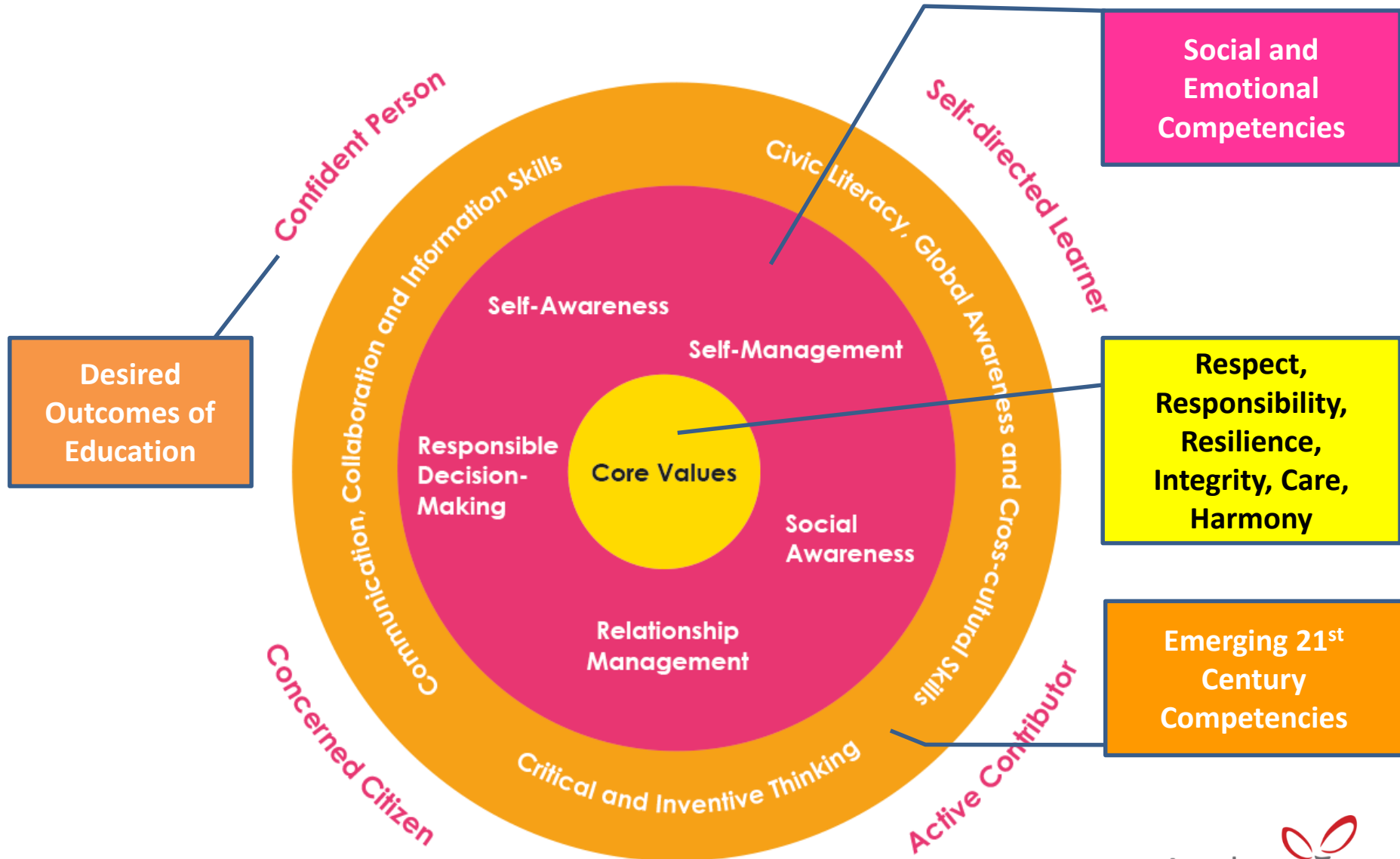
1. *Deep Values and Deep Connection*
2. *Deep Foundation for learning*



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**

21st Century Competencies and Student Outcomes



21st Century Learning and Teacher Education

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



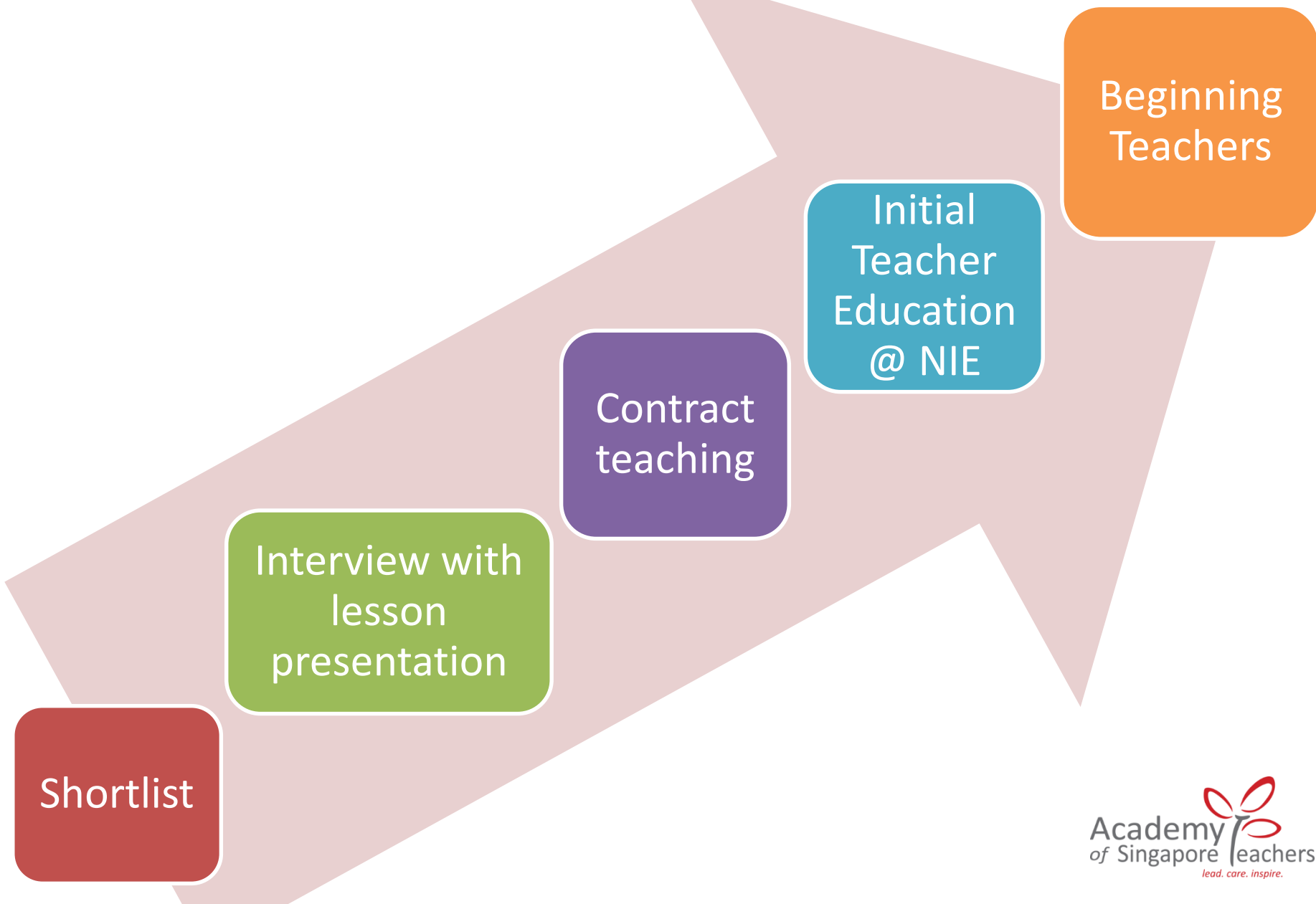


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Teacher Professional Competencies

- **Teacher Growth Model**

Teacher Recruitment



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**

The Ethical Educator		The Competent Professional		The Collaborative Learner	The Transformational Leader	The Community Builder
Living Out Ethos of the Teaching Profession	Mastering Self	Deepening Knowledge and Practice in Academic Curriculum	Deepening Knowledge and Practice in Student Development Curriculum	Learning as a Team	Leading People Towards a Shared Vision	Understanding and Engaging Our Community
Professional Ethics (e.g., code and conduct)	Self-Knowledge	Curriculum	Learners and Learning	Collaborative Learning	Leader as Visionary	Understanding Local and Global Issues
Ethics in/across Subject Discipline	Self-Efficacy	Discipline and Subject Content	Student Development Curriculum	Teamwork and facilitation	Leader as Manager	Engaging Our Stakeholders
Research Ethics	Self-Management	Pedagogy		International Collaboration	Leader as People Developer	
Ethical Leadership and Culture		Assessment			Leader as Change Agent	
		Professional Practice (e.g., critical inquiry and reflection)				

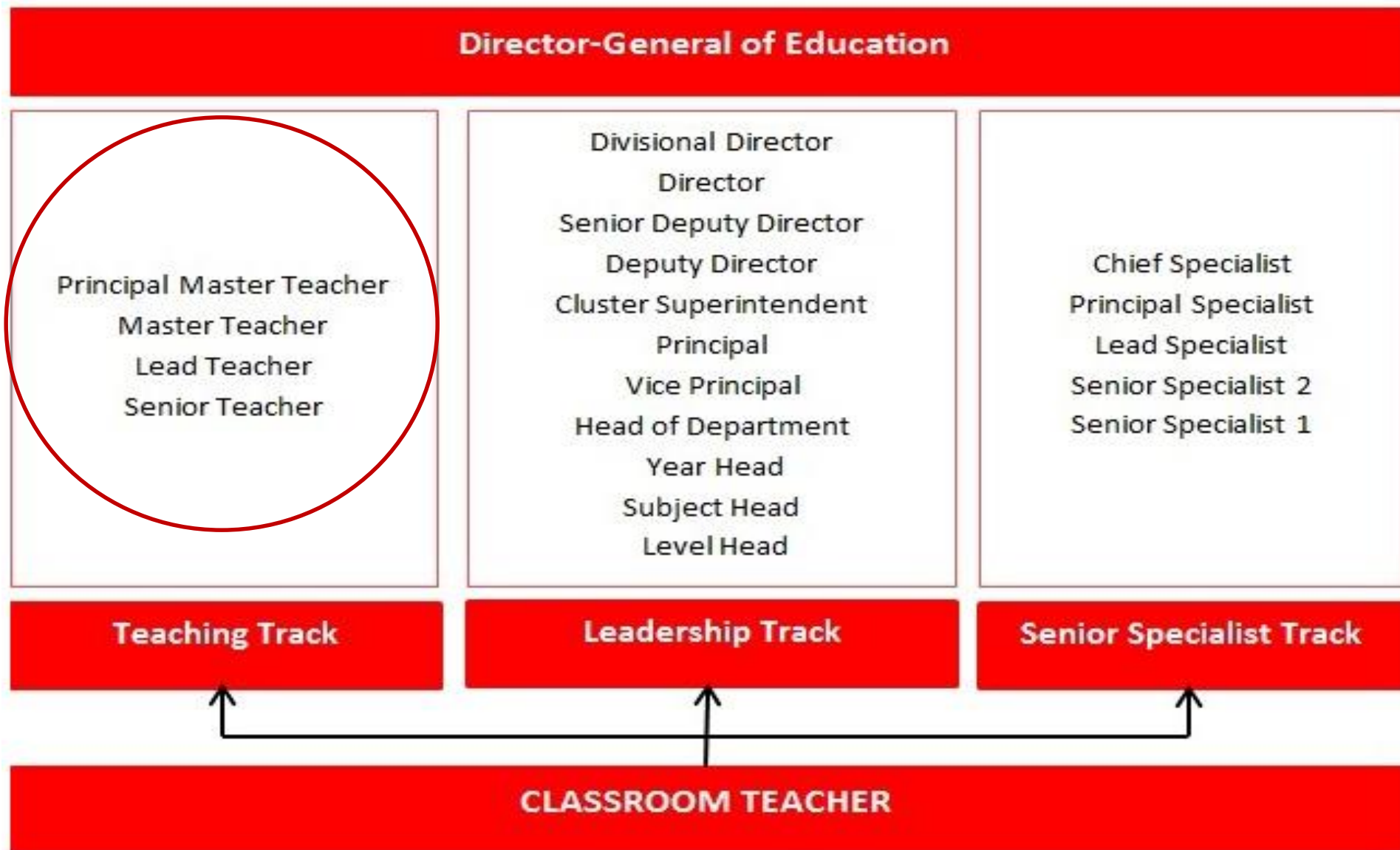


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Key Stakeholders in PD

- **3-Track Career Structure**
- **Roles of Various Leaders in PD**
- **Seven Academies and Language Centres**
- **Strong Tripartite Relationship among MOE, NIE, & Schools**

3-Track Career Structure in MOE



A career progression that takes into account officers' aspirations.

Teacher Leaders

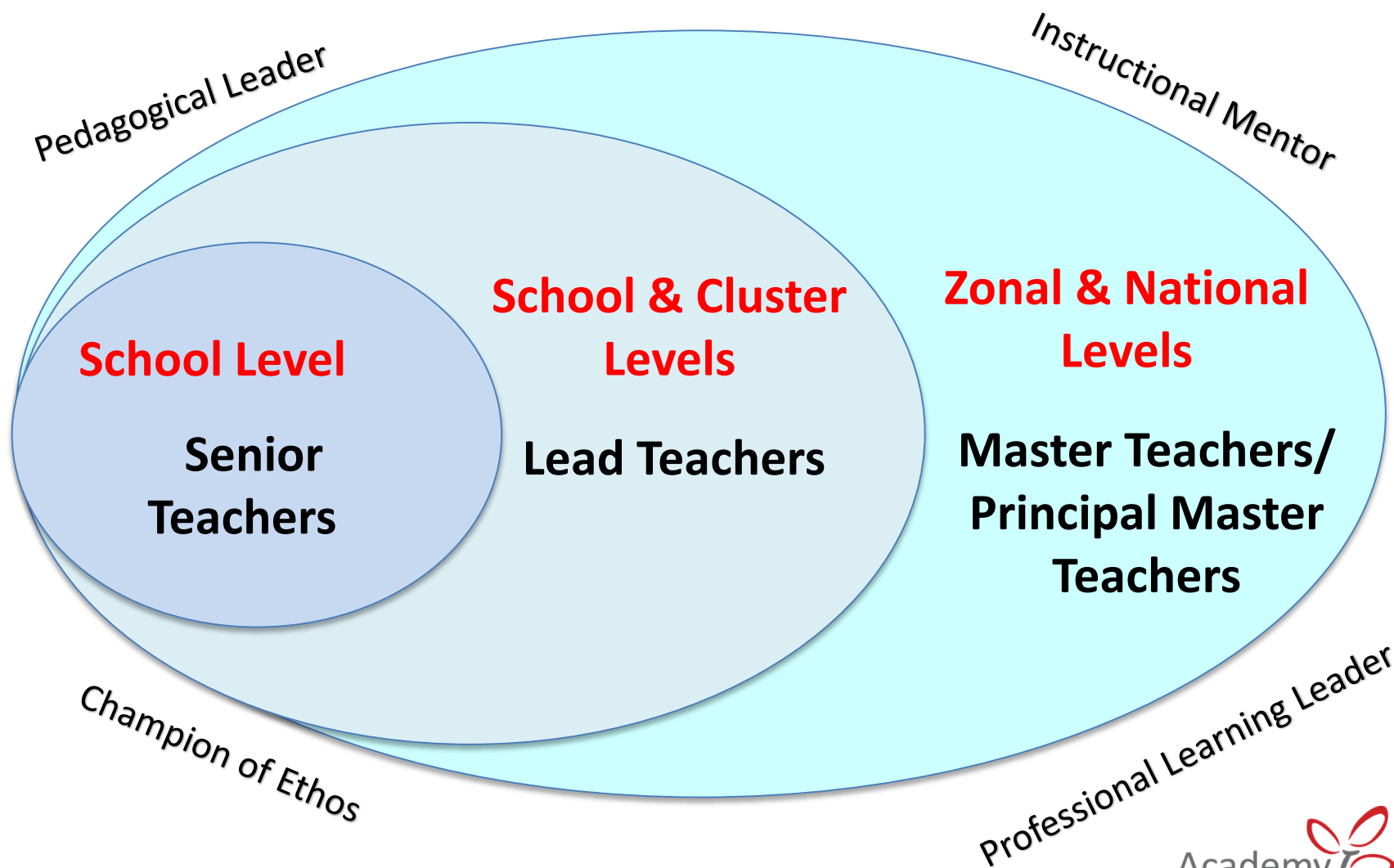


The Teacher Leader is a **role model** for teacher leadership and high professional standards in living out the *Ethos of the Teaching Profession*.

“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.”

OECD (2011). *Building a high-quality teaching profession: Lessons from around the world*. Paris: OECD Publishing

Impact of Teacher Leaders



Teacher Ownership, Teacher Leadership

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.



Singapore
Teachers'
Academy
for the
aRts

Academy
of Singapore Teachers
lead. care. inspire.

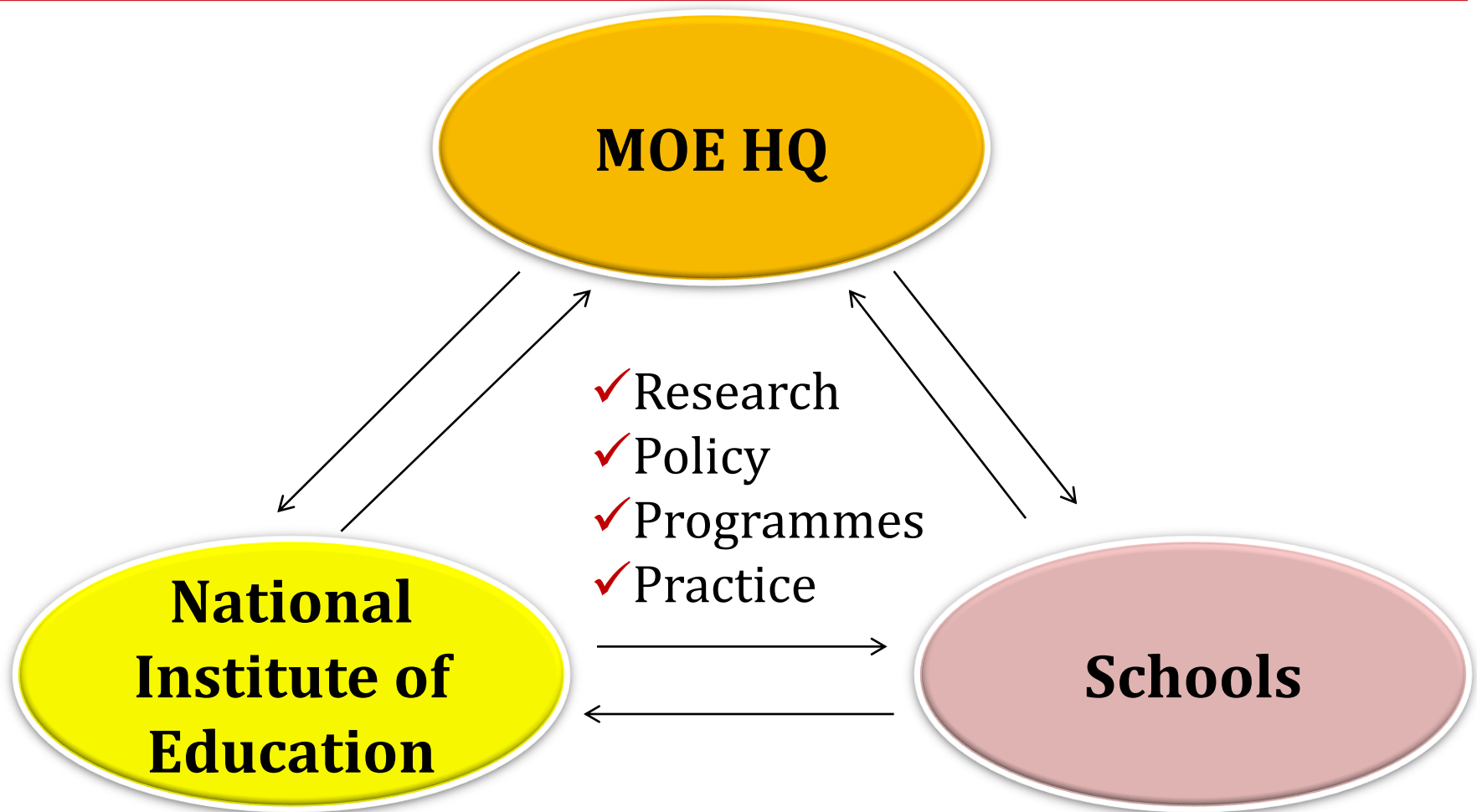


PESTA

ELIS
ENGLISH LANGUAGE INSTITUTE
OF SINGAPORE



Strong Tripartite Relationship among MOE, NIE, and Schools



Poon, C. L. (2011). Translation of research into policy and practice. In E. L. Low (ed.) *Paving the Fourth Way – the Singapore Story*. Singapore: NIE.



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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



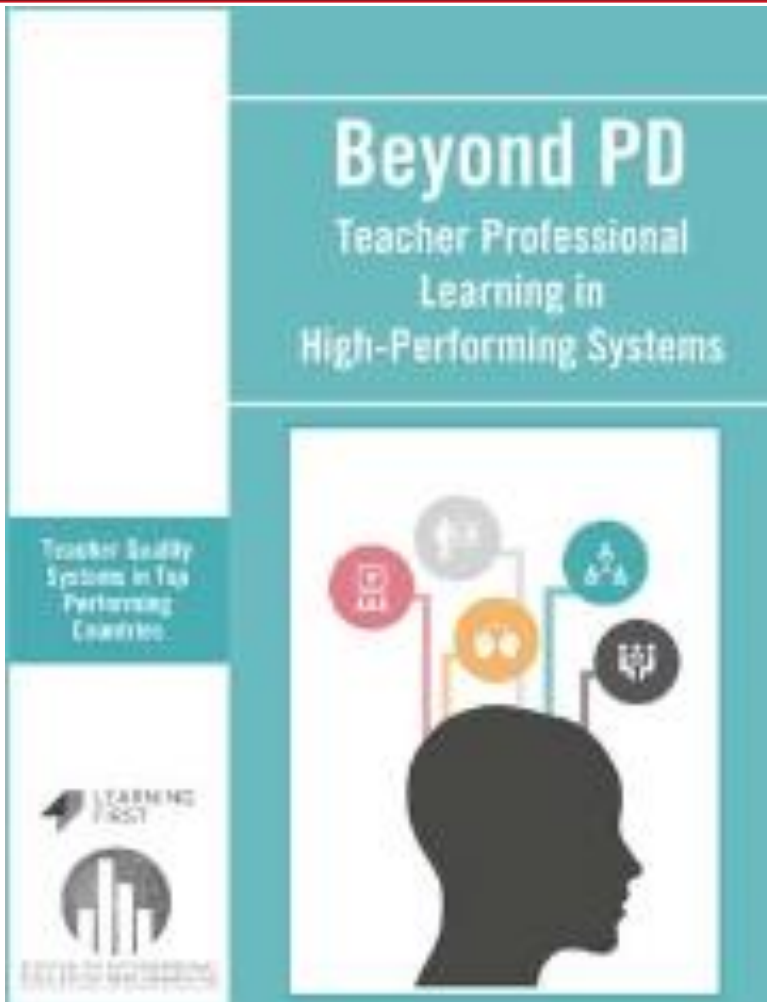
Active learning

Academy of Singapore Teachers. (2015). *Guide to Effective Professional Development – Workshops and Learning Programmes*. Singapore: MOE.

Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher*, 38(3), 181-199.

Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching: Theory and Practice*, 8(3), 381-391.

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.

Jensen, B., Sonnemann, J., Roberts-Hull, K., & Hunter, A. (2016). *Beyond PD: Teacher Professional Learning in High-Performing Systems*. Washington, DC: National Center on Education and the Economy.

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

Jensen, B., Sonnemann, J., Roberts-Hull, K., & Hunter, A. (2016). *Beyond PD: Teacher Professional Learning in High-Performing Systems*. Washington, DC: National Center on Education and the Economy.

Mentoring as an Effective Mode of PD

TALIS 2013 Singapore has the youngest teaching force among TALIS countries

Beginning and less-experienced teachers

- 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

High standards of teaching

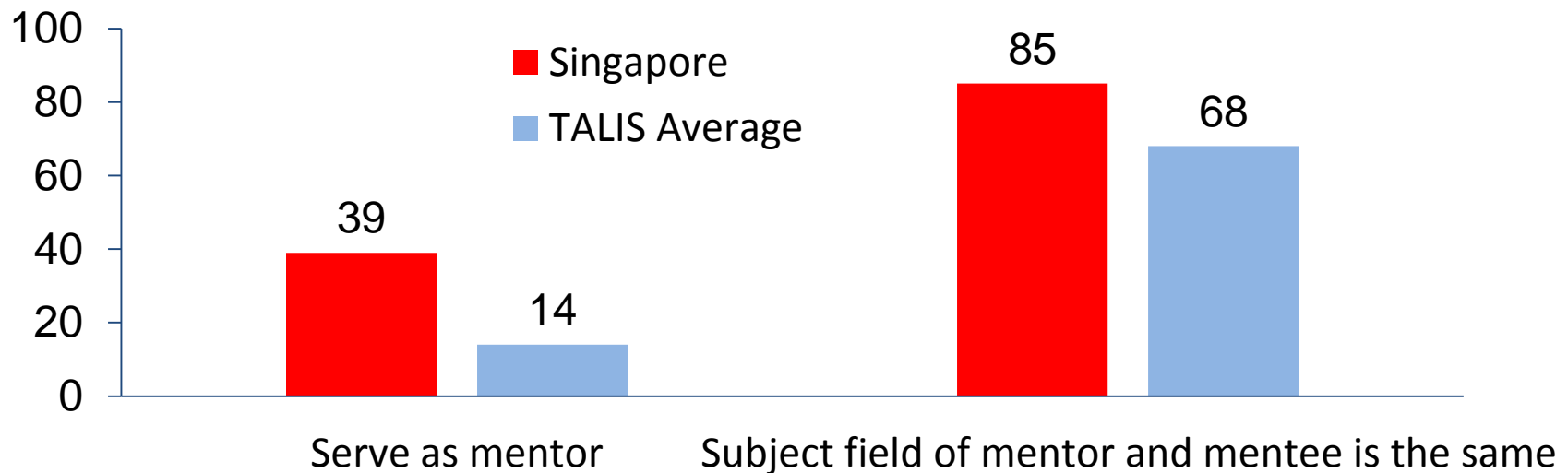
- Establish **high** standards of teaching practice in our school system

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



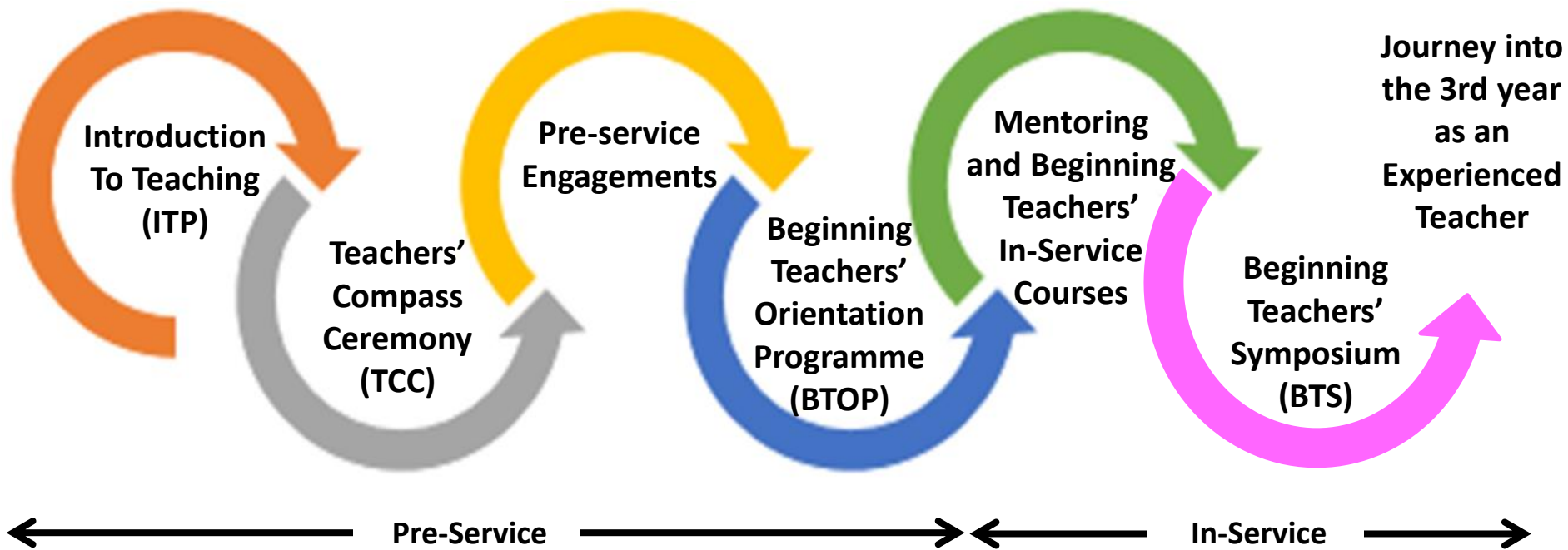
Instructional Mentoring Programme

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

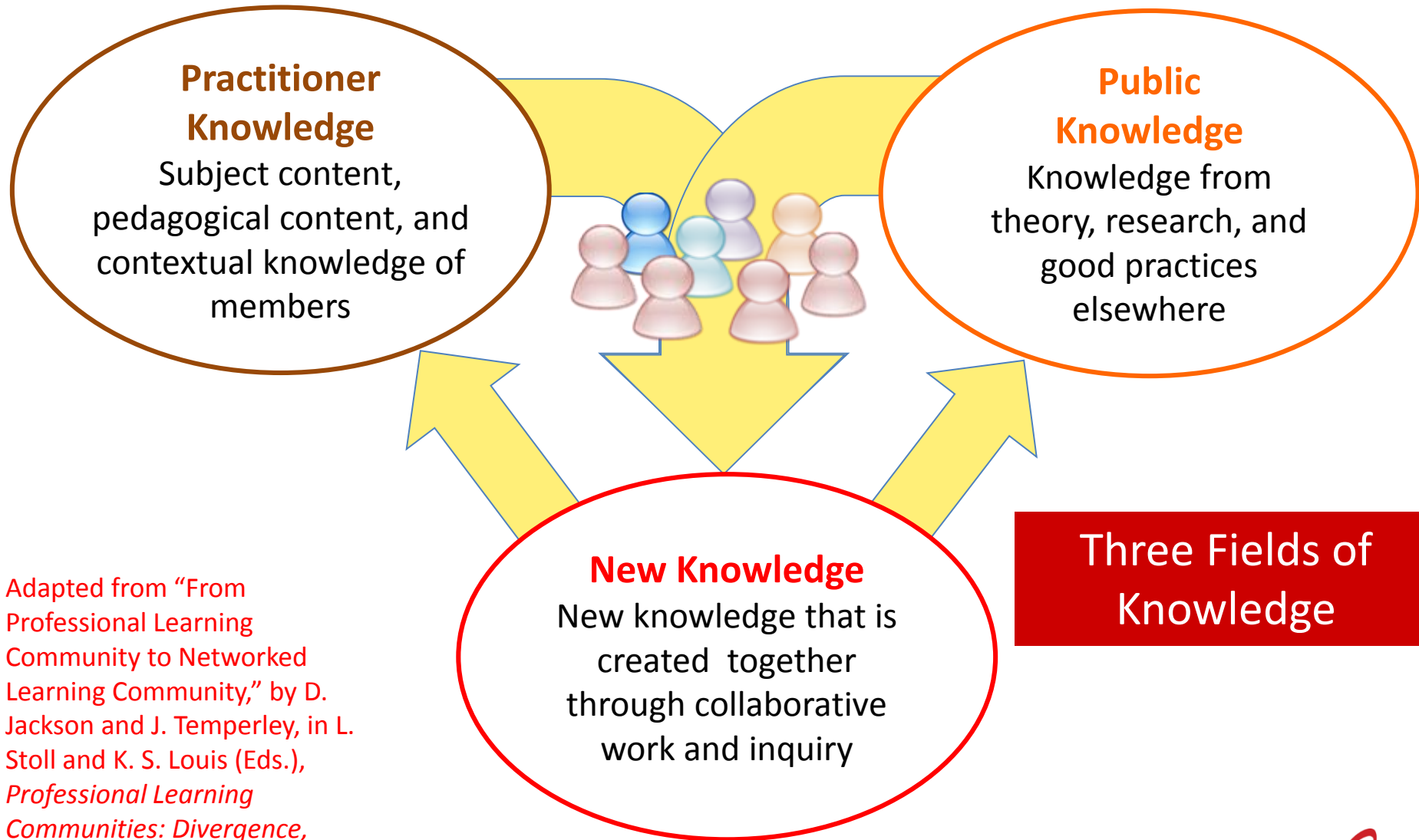
- To understand mentoring practices in Singapore schools

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

Teacher Induction Framework



Learning Communities



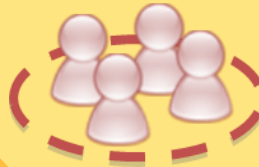
Adapted from "From Professional Learning Community to Networked Learning Community," by D. Jackson and J. Temperley, in L. Stoll and K. S. Louis (Eds.), *Professional Learning Communities: Divergence, Depth and Dilemma* (p. 48), 2007, Maidenhead: Open University Press.

Learning Communities

Examples:

- Geography Chapter
- Primary Math Chapter
- Primary Learners
- Low Progress Learners

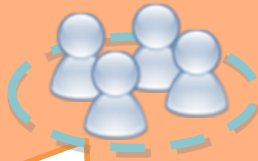
By subjects & learner profiles



Examples:

- Assessment Literacy
- Learning Study
- Science Practical Skills

By Professional Roles



By Professional Interests



Professional Learning Communities (School-based)

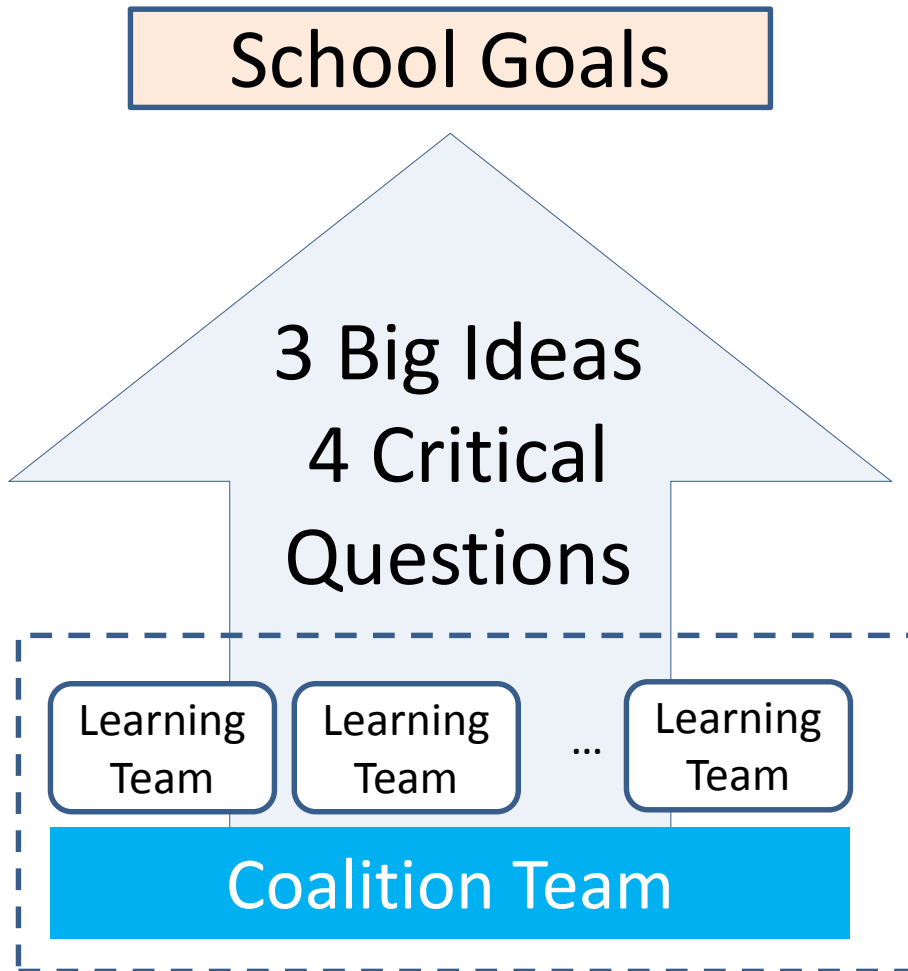


Professional Learning Teams within schools

Examples:

- Lead Teachers-Senior Teachers Networks
- Master Teachers Network
- School Staff Developers Network

Professional Learning Communities (PLCs) in Schools



- **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

DuFour, R. (2004). What is a professional learning community? *Educational Leadership*, 61(8), 6-11.

Professional Learning Communities (PLCs) in Schools

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

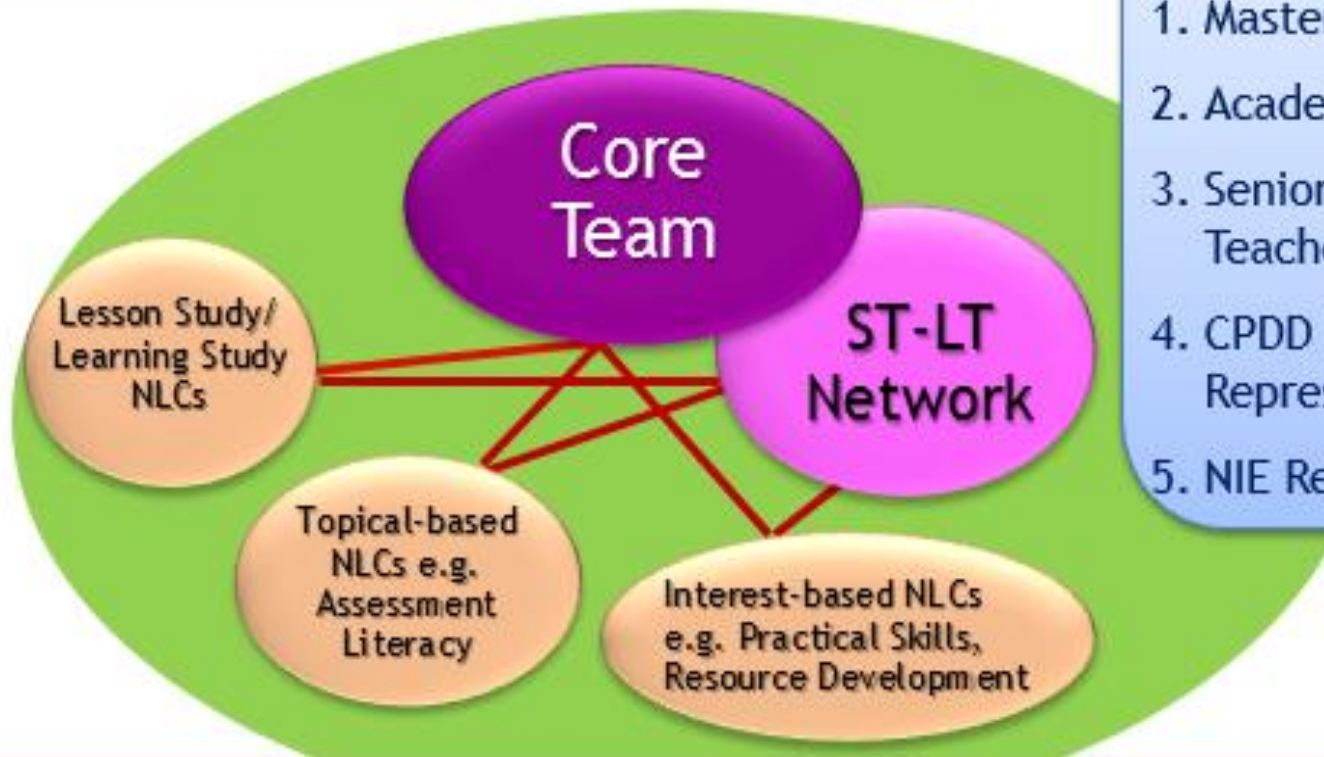
Shared personal practice

Supportive conditions

Hipp, K., & Huffman, J. (2003). *Reculturing schools as professional learning communities*. Lanham, MD: Scarecrow Education.

Structure of Subject Chapters in AST

Example: Chemistry Chapter

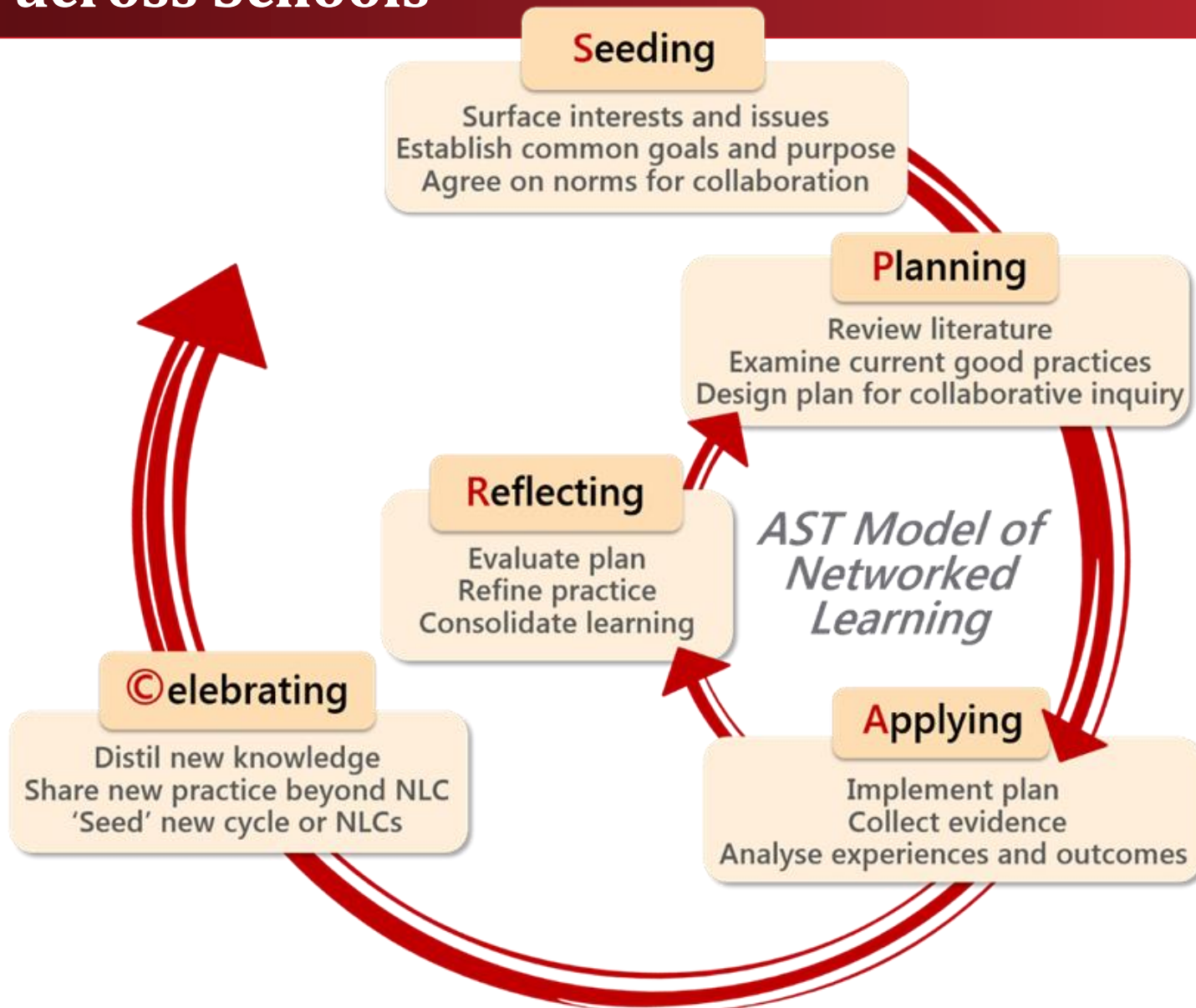


The core team consists of

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

Networked Learning Communities (NLCs)

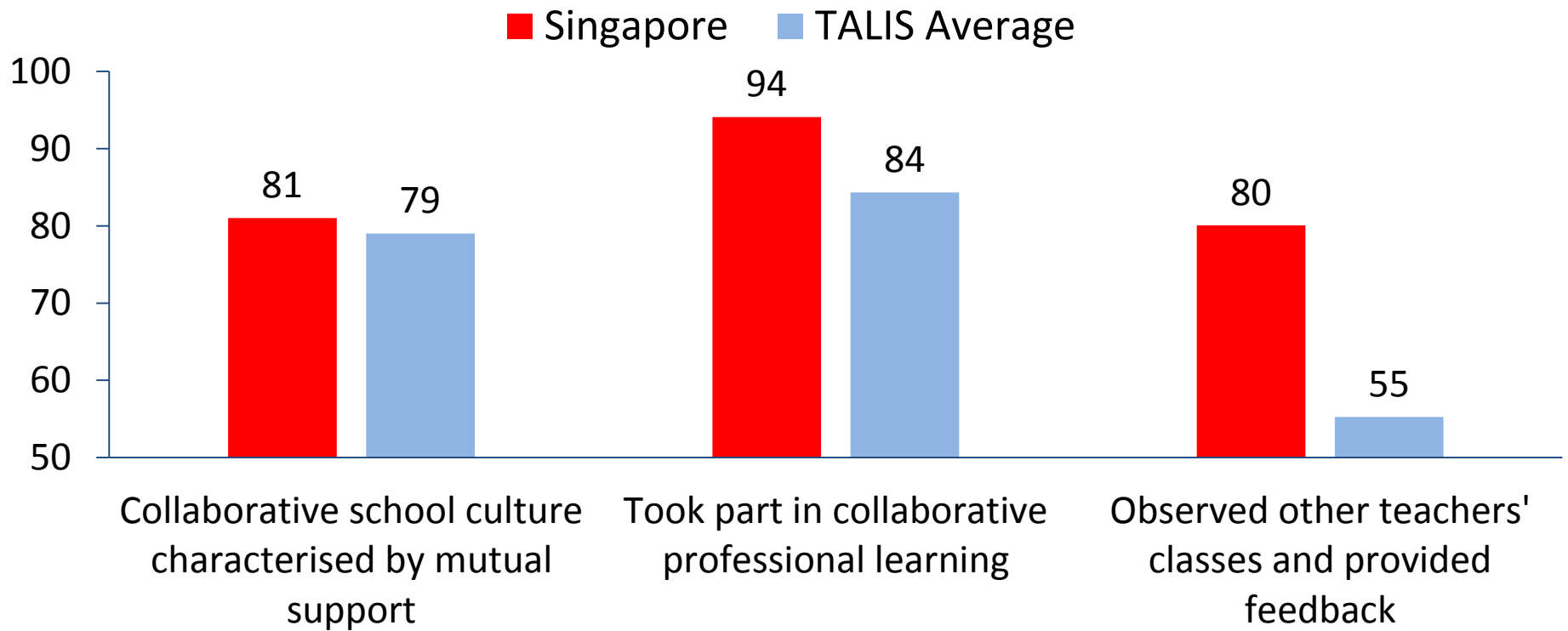
Networked Learning Communities (NLCs) across Schools



Academy of Singapore Teachers. (2017). *Guide to Effective Professional Development – Networked Learning Communities*. Singapore: MOE.

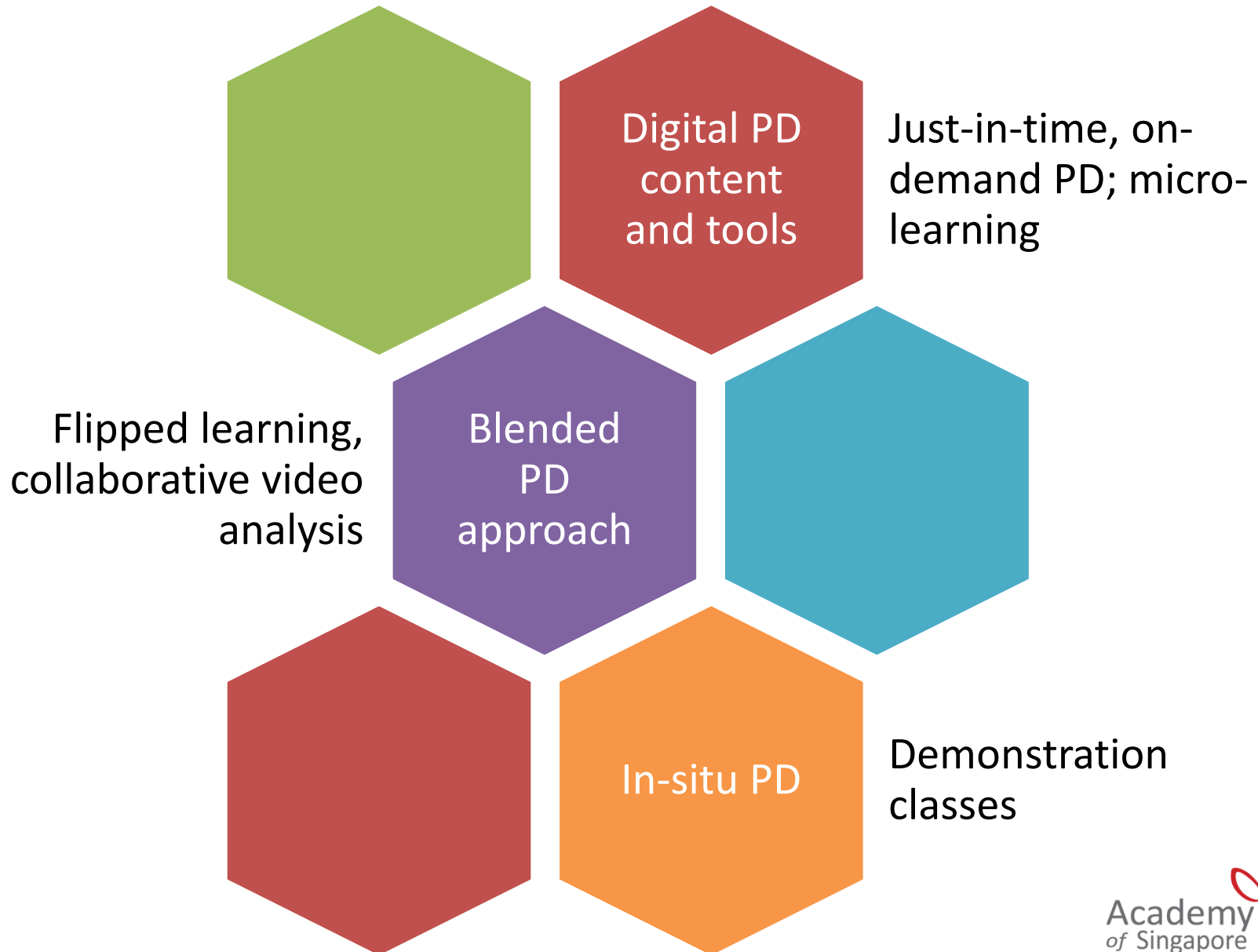
Singapore's TALIS 2013 Findings

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



% of teachers who agree to the following statements

Future-Ready PD for Future-Ready Teachers





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Future Opportunities

- Reimagining Teacher PD
- SkillsFuture

Transformation of Our Teaching Profession

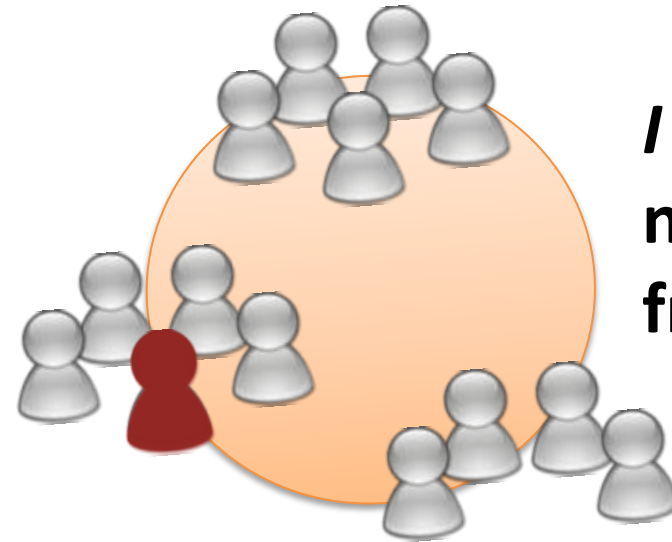
- **Professional Identity:**
“I in my classroom”
- **Organisational Culture:**
Ministry-driven system
of excellence



**I in my
classroom**



**I in professional
collaboration**



**I in a
networked-
fraternity**

- **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



Winnie Chua
Polytechnic Student

Help individuals make well-informed choices in education, training, and careers



Imman Su
Senior Singing Coach
The Edgefields CC

Develop an integrated high-quality system of education and training that responds to constantly evolving needs



Dr Jonathan
Education Director
Pioneer Poly Tech

Promote employer recognition and career development based on skills and mastery



Ran
Lecturer
NTU S

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





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