

Teacher Professionalism, Development & Learning

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Outline of the Presentation

- History of Singapore
- Overview of Singapore school system
- Teacher and teaching
 - Teacher recruitment
 - Teacher education- Pre-service
 - Professional learning and development
- Challenges
 - Lessons learned in research about teacher and teaching
 - Gaps
 - Moving forward

The Development of Singapore

Geographical Location of Singapore



Student Enrolment & Number of Teacher

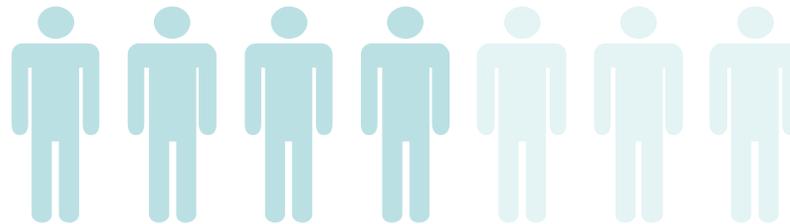
185 Primary school
150 Secondary school
16 Mixed level
14 JC/ CI



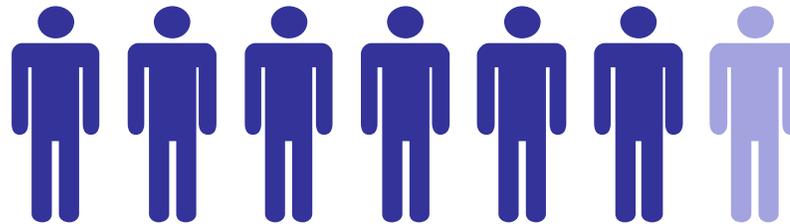
365
schools

3 high-stakes exams

Primary School Leaving Exams
(PSLE)
GCE "O" Level Exam
GCE "A" Level Exam/ IB



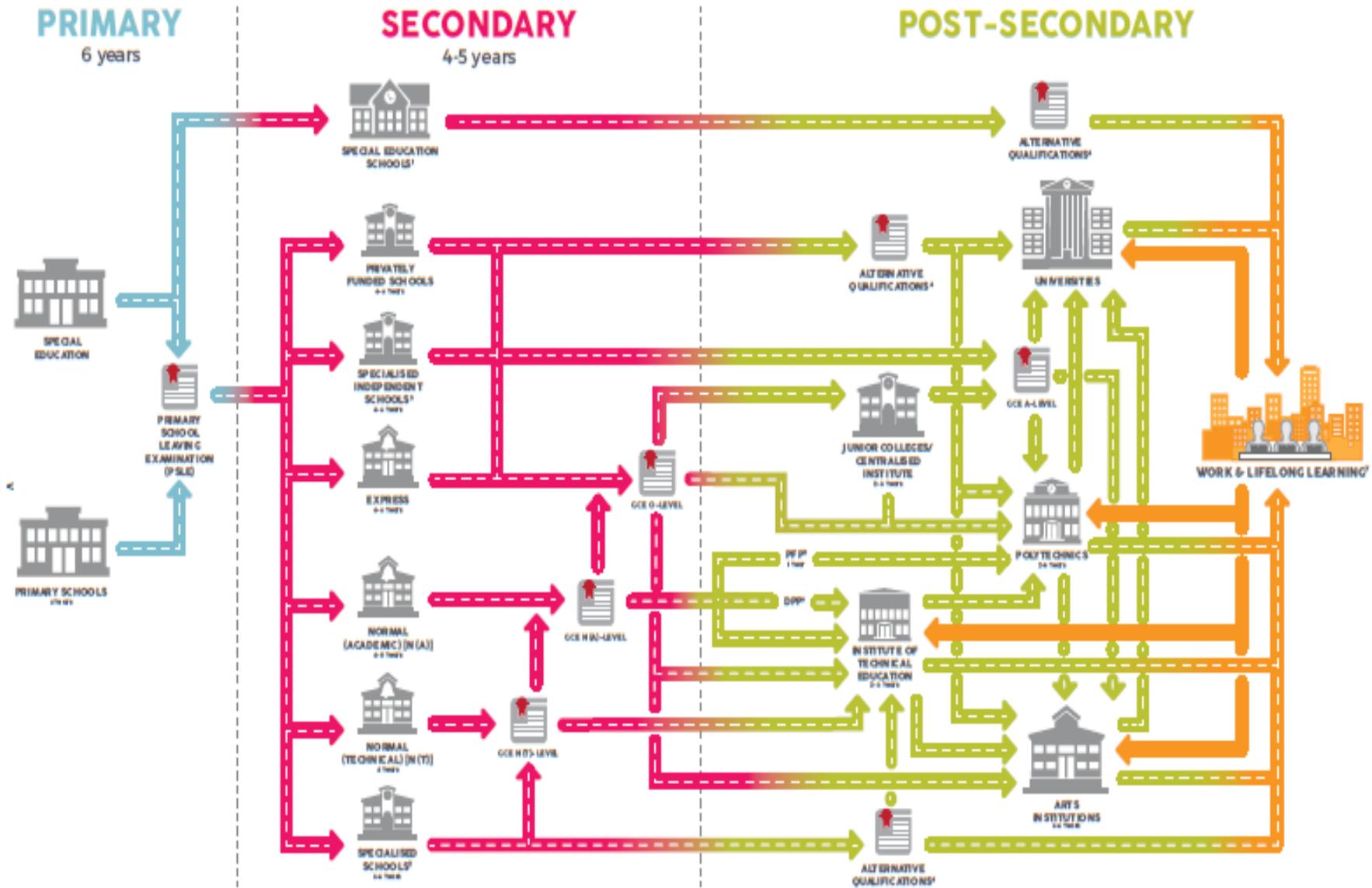
446,582
Students



33,378
Teachers

Multiple pathways for multiple peaks of excellence

Singapore's Education System : An Overview



ONG Pang-Boon (1968) Teacher Education Conference

“Teacher as a middleman handling down a static body of knowledge” to that of “an inspirer who could instill in his pupils an unquenchable thirst for knowledge and expose them to the art and technique of acquiring new knowledge”.

“the greatest challenge in teacher education today is to make our teachers understand and play their new role in education which, besides their commitments to knowledge, has a great deal to do with the all-round development of the individual including his responsibility in citizenship and leadership”.

PGDE TEACHING APPLICATION

TIME CHECK

- Application window opens
- School Stint Begins
- NIE Enrolment



THE WINDOWS

APPLICATION	SCHOOL STINT	NIE INTAKE*
1 FEB - 21 FEB	MID-JUN 2018	DEC 2018
17 MAY - 6 JUN	EARLY FEB 2019	DEC 2019
16 AUG - 5 SEP	EARLY FEB 2019	DEC 2019

*Except Physical Education where the next enrolment is July 2019

APPLY NOW

via Careers@Gov at www.moe.gov.sg/teachapplication

INTERVIEWS

- A** Shortlisted applicants will be informed within 5 weeks of the application closing.
- B** The interview includes a written task, a short presentation and a discussion with the panel.
- C** Applicants will be informed of the application outcome within 4-5 weeks of the interview.

PROFICIENCY TESTS

Applicants may need to sit for and meet the requirements of the proficiency tests as required by the Ministry.

Applicants considered for Physical Education will need to meet the requirements of the Physical Proficiency Test as part of the shortlisting requirements.

Applicants required to take proficiency test(s) will be notified of the registration details.

UNTRAINED CONTRACT TEACHING STINT

- 1** Allows selected candidates to **affirm interest** in teaching
- 2** Allows the Ministry to assess selected candidates' **suitability for teaching**
- 3** Candidates **assessed to be suitable** will be enrolled into **NIE**



For more information, go to

<https://www.moe.gov.sg/careers/teach/how-to-apply/application-process-for-applicants-without-teaching-qualification>

A monthly salary while undergoing NIE training.

Tuition fee at NIE will be fully borne by MOE.

Upon successful completion of NIE training, teachers will be deployed to teach in schools to serve a **3-year teaching bond**.

The **gross starting salaries** for GEO officers:

DipEd	\$1,600 - \$2,100
PGDE	\$3,100 - \$3,500

CONNECT Plan

recognises dedicated teachers for their commitment to the cause of education. Trained teachers under Permanent Establishment will receive payouts at various defined points in their career.

Teacher Education

- National Institute of Education (NIE)
- Institute of Education (IE)
- Teacher Training College (TTC)

Dip Ed.
PGDE (Pri/ Sec)



Higher Degree
(MSc; MA- by
coursework;
by research
Ph.D., Ed.D.)

Degree
Programmes
(BA, BSc)

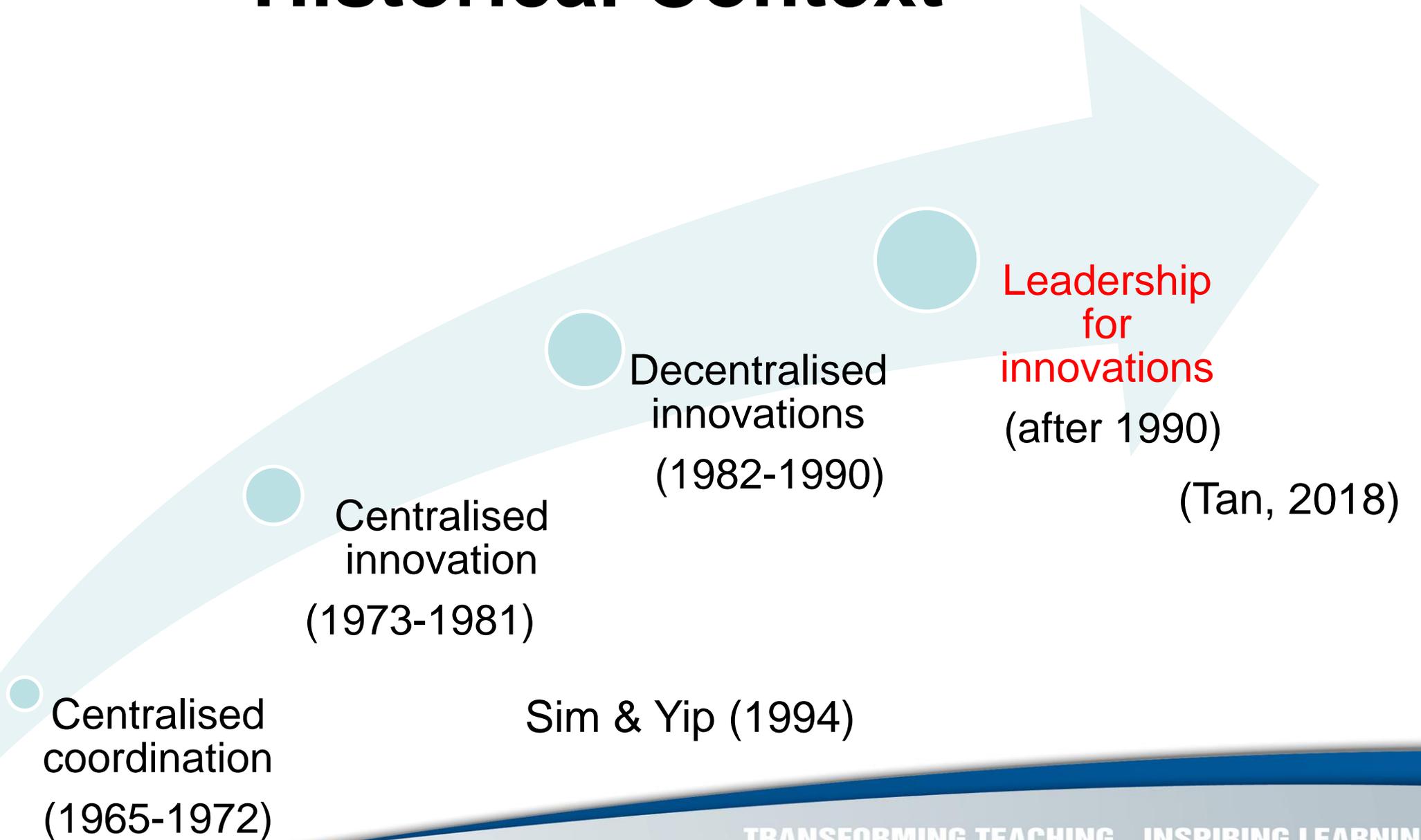


Pre-service
Degree- Teaching Scholar
Programme
Educational Research

Dip Ed.
PGDE (Primary)
PGDE (Secondary)

**Professional
Development**
Higher Degree programmes
Standalone courses
Customised career track
courses: MLS, LEP, TLP

Historical Context

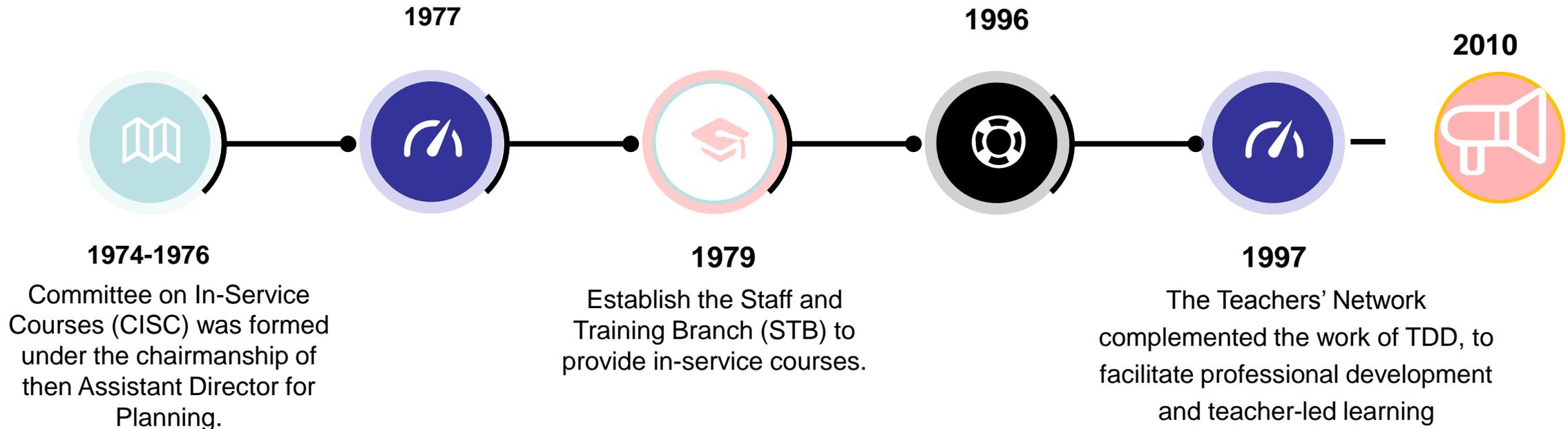


The History of Teacher Professional Development

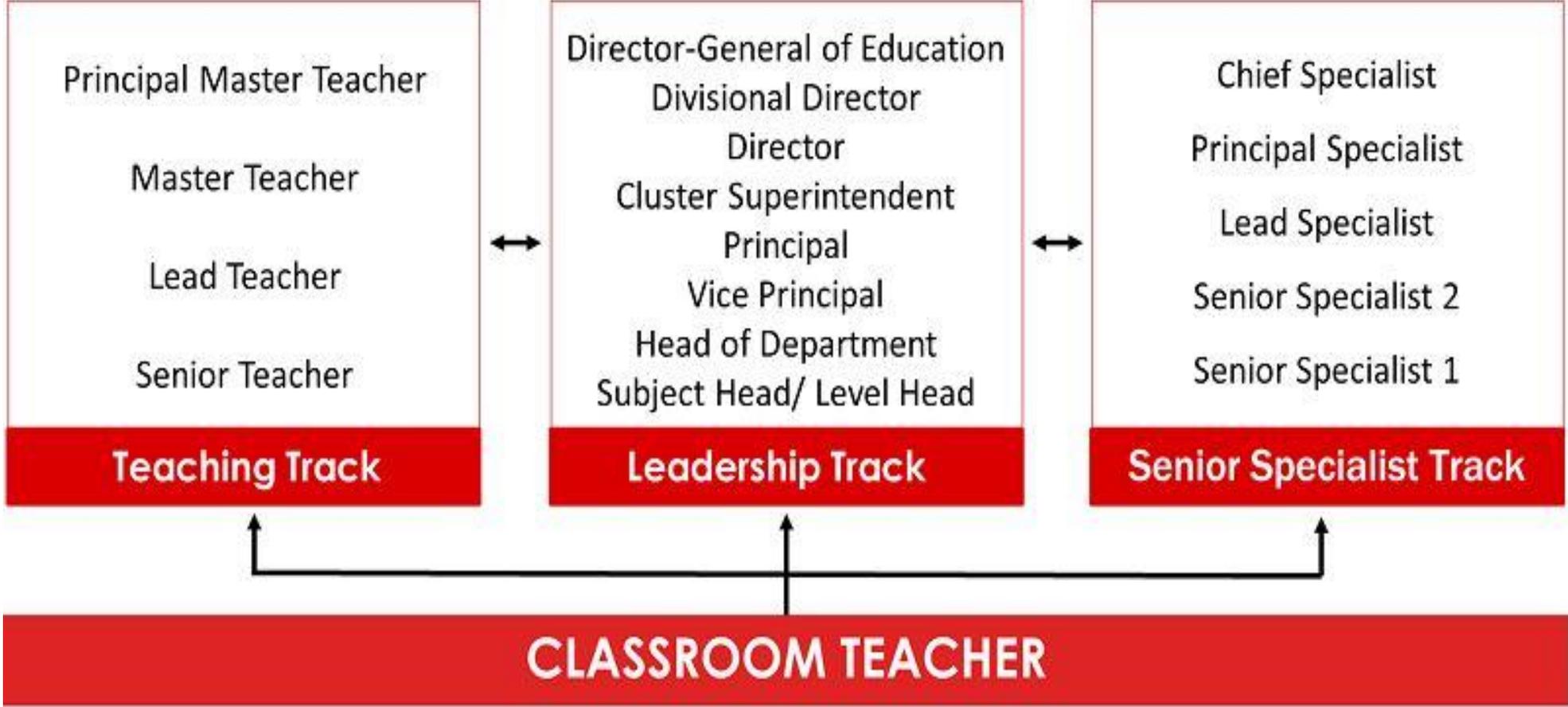
The rolling plan concept as the in-service strategy where MOE closely followed up on high priority courses. The rolling plan included the annual review of the key initiatives of MOE. The In-service Course Prospectus provided specific details of courses offered.

CDIS and the Curriculum Planning Division became Curriculum Planning and Development Division (CPDD) and Educational Technology Division (ETD). Training and Development Division (TDD) drove and provided in-service training, and initiate new schemes to promote the spirit of continuous learning among staff.

Established the Academy of Singapore Teachers



Career pathways and advancement in Singapore



MOE (2001)

Forging Teacher Leadership



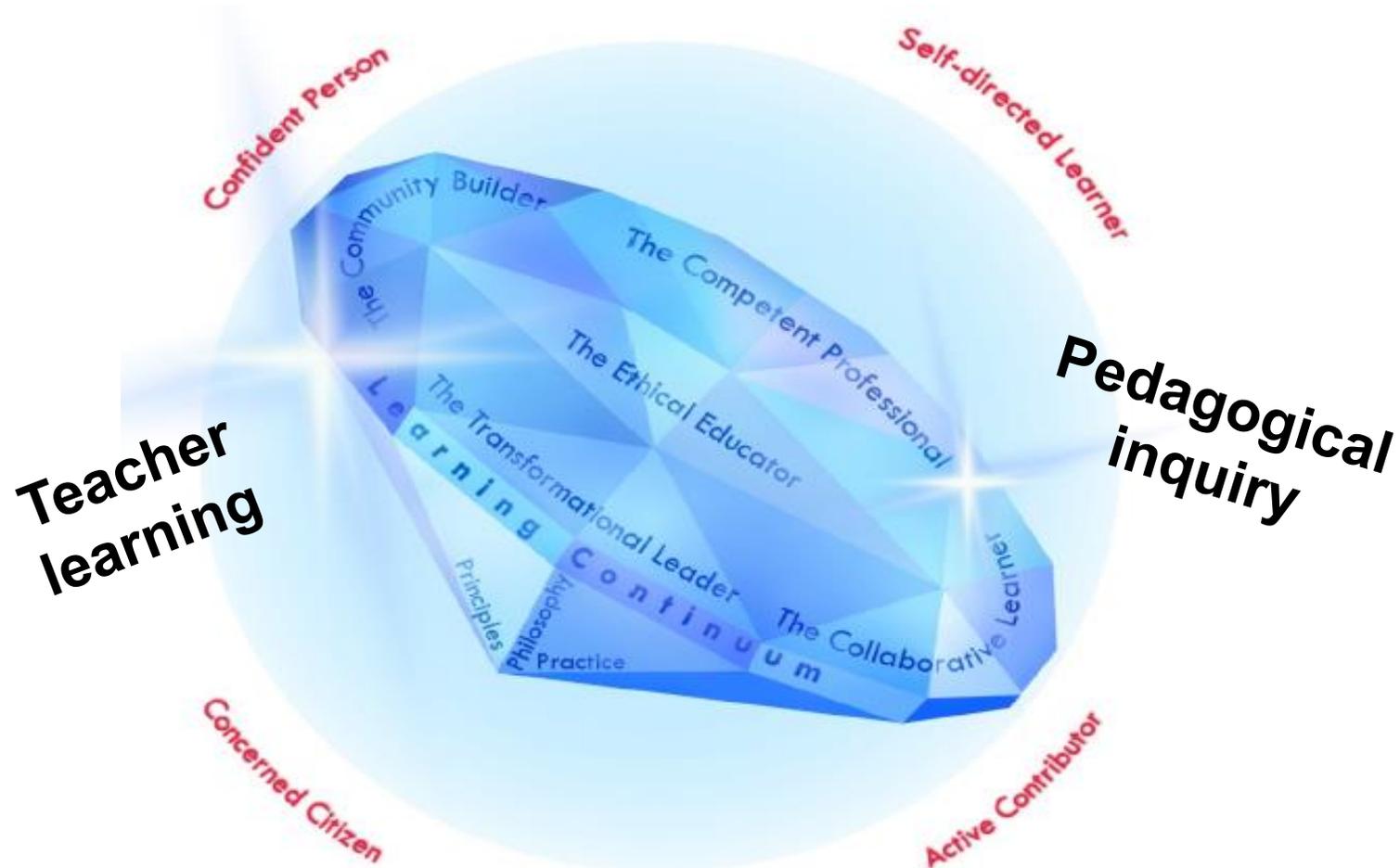
**Approx. 100 Master Teachers
and Principal Master Teachers**



Singapore Teachers' Academy for the aRts



Teacher Growth Model



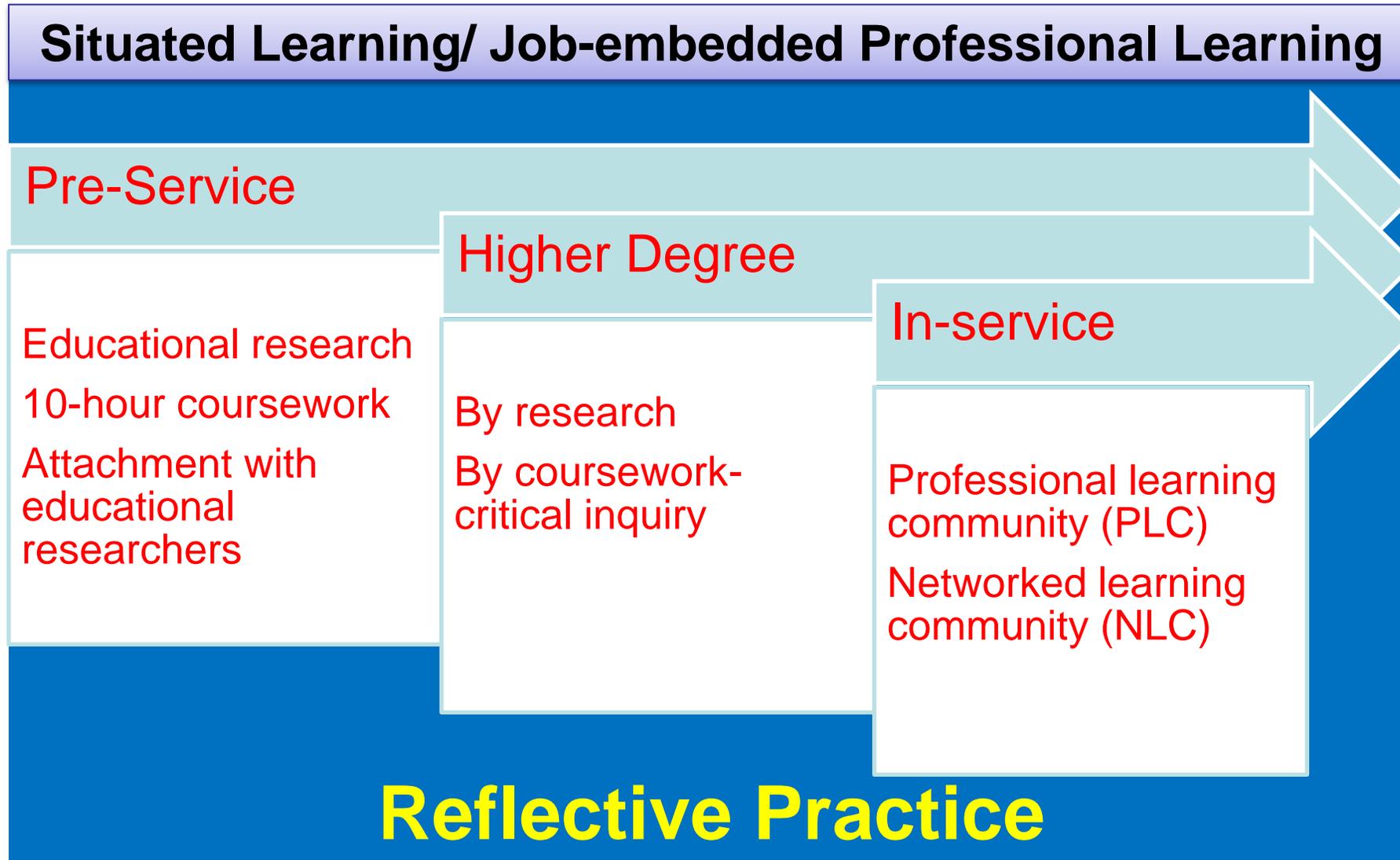
The Learning Continuum

Philosophy
Principles
Practice

Confident Person
Self-directed Learner
Concerned Citizen
Active Contributor

The competent professional
The ethical educator
The community builder
The collaborative learner
The transformational leader

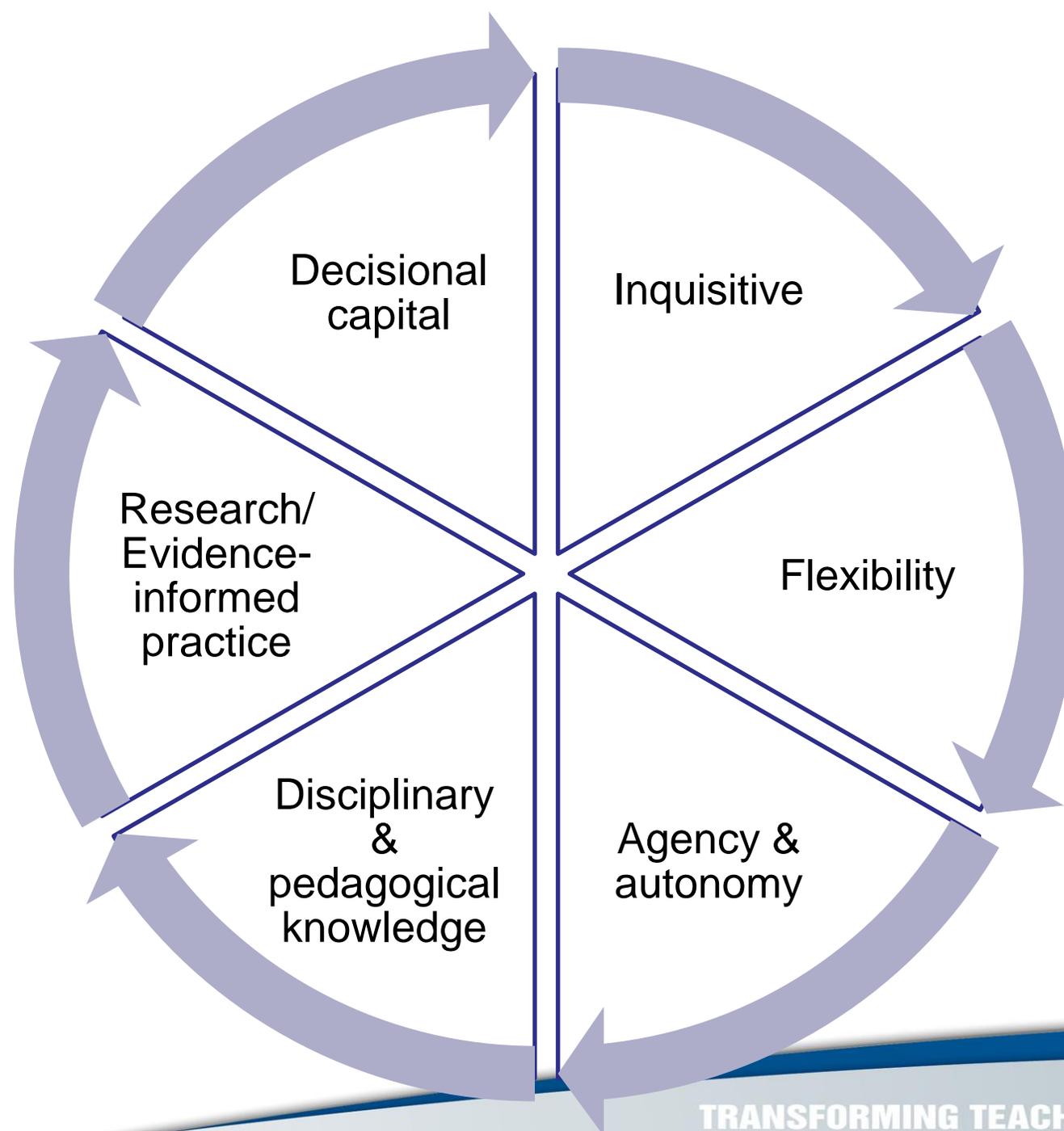
Teacher Learning & Professional Development



Expanded Teacher Role

- Strong subject knowledge and Pedagogical Content Knowledge
- Leading pedagogical and curriculum change/ innovation (curriculum/ pedagogical leadership)
- Mentoring, coaching and facilitation skills
- Knowing the latest in the education research that helps fellow teachers to do the work better
- Having a community working towards a common issue/ problem they encounter (reflective practitioner)

**Aspirations for
Singapore
teaching force
by focusing on
teacher
dispositions**



CHALLENGES IN TEACHER PROFESSIONAL DEVELOPMENT

What are our concerns about the practice?

Teacher quality is increasingly placed as the key to bring about educational change that is suited for the future. Policymakers and researchers have vested interests in developing greater teacher professionalism.

Teacher professionalism placed values on practical knowhow, conceptual understandings of education, principles of teaching and learning, and more importantly the ability to interpret and form critical judgments on existing knowledge and its relevance to their particular situation. This has become an unprecedented call for thoughtful pedagogical practice to prepare future-ready students. Research suggests that

professional judgment comprises a complementary and mutually-enriching relationship between different aspects of professional knowledge and practice. Besides good content knowledge, three aspects of teaching: (1) situated understanding, (2) technical knowledge and (3) critical reflection, are the keystones of

teaching. Hence, there is a need to promote pedagogical inquiry. **Pedagogical inquiry** is about empowering teachers and schools to become agents of inquiry (and innovation) in the instructional core. While

teachers are the **agents of change**, the drivers of change are on pedagogy. As such, teacher education and professional learning are being organised within communities such as the professional learning communities and networked learning communities. These communities are positioned as the mechanisms for Singapore's

self-improving education system. This presentation highlights how Singapore teachers learn and how teacher learning improves education through pedagogical inquiry. The presenter will discuss some key tenets of teacher learning in the Singapore context and draw lessons learned from the state of research in teacher learning and professional development in Singapore.

Why do we Teach?



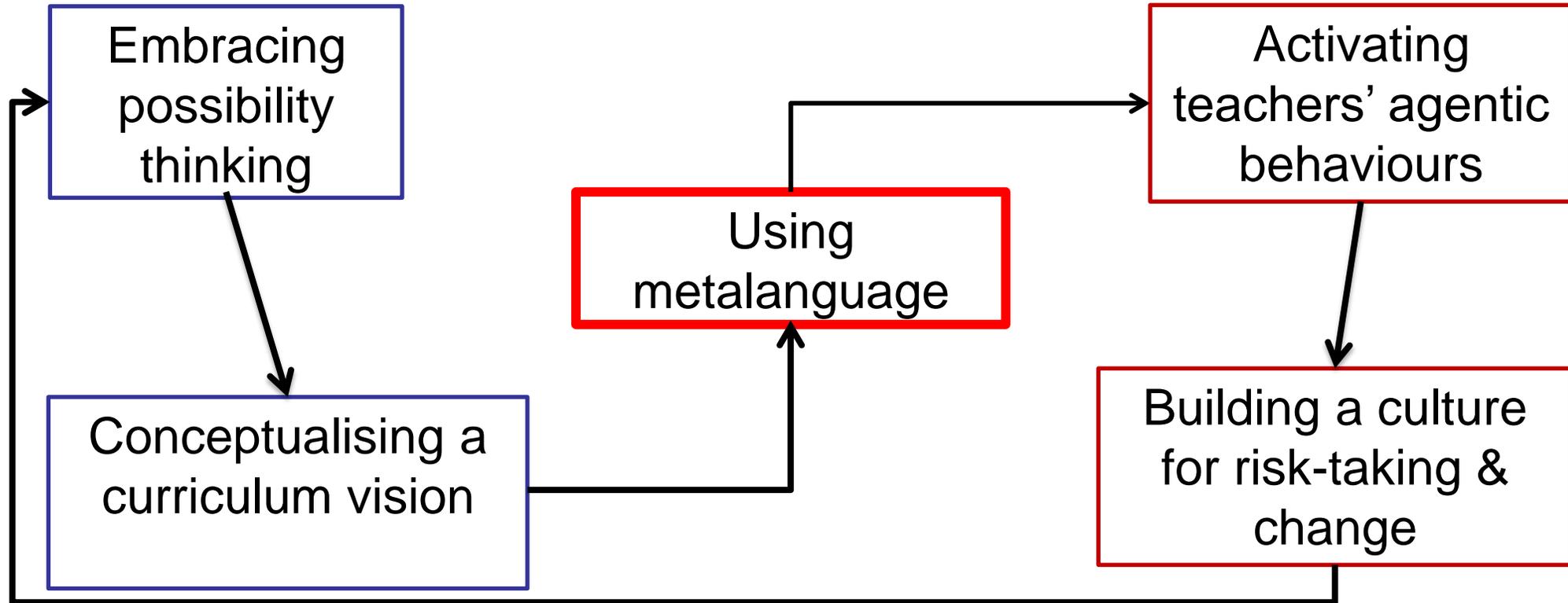
Why teachers have to be future-ready?

~~How to teach?~~

What is the problem in our practice?

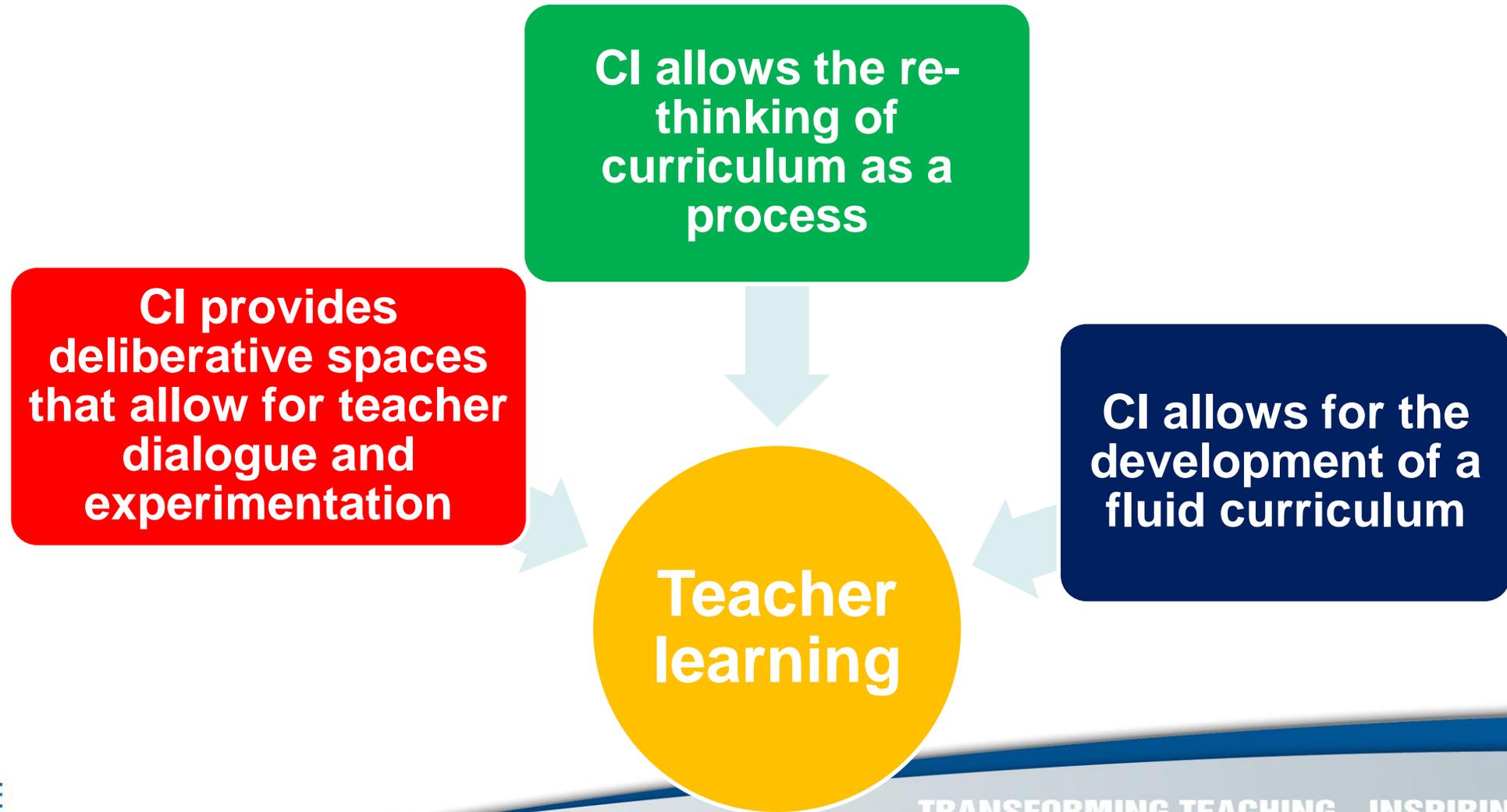


Study 1: Schools and Innovation Cultures- 5 Sociocultural Leverages that Foster Adaptive Culture for Change



Ponnusamy, L. D., Tan, L. S., Rahamat, S., & Mohammad Ibrahim, N. A. (2017). Negotiating the complexity of curriculum integration: metalanguages as levers that shape the innovation process. *International Journal of Innovation in Education*, 4(2/3), 126-146.”

Study 1: Teacher Learning & Curriculum Innovation



Study 1: Conditions that enhance Teacher Learning and Professional Growth

Curriculum Vision

Evidence of effectiveness

Professional and personal relevance of CI to teacher

Opportunities for transferability and sustainability

Greater professionalism



Better classroom practices



Critical and reflexive practitioners



Professional sharing



Quality instructional programmes

Adaptive Expertise

Partnerships

Professional Development

Collaborative Capital

PRACTICE

CULTURE

VALUES



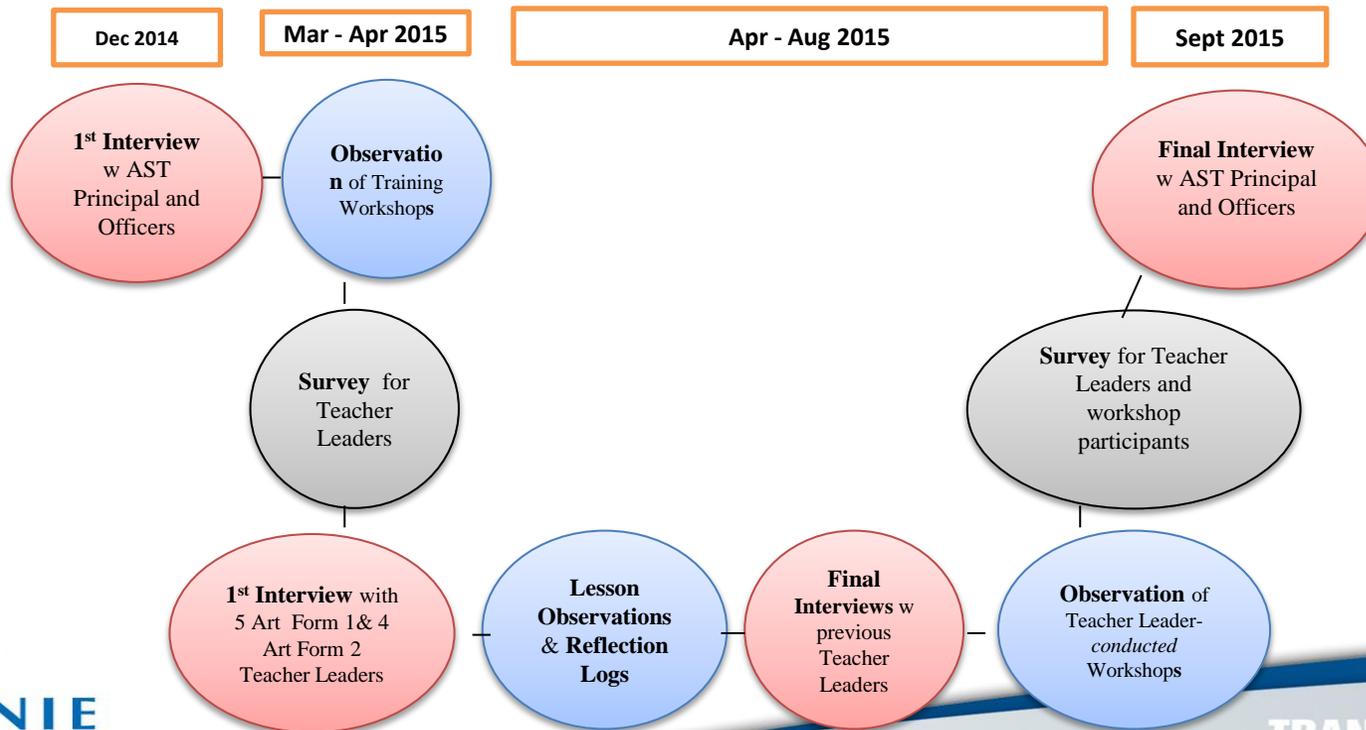
Self-improving system: Learning to learn to improve practice, student outcomes and create a national culture of inquiring schools, e.g. PLC, NLC



Beginning Developing Embedding Leading

Study 2: Teacher Leadership & Networked Learning Community

How does professional development, in particular the Teacher Leader programme, promote **teacher learning** to nurture **teacher leadership** and engender an emergent **teacher-led culture**?



Iterative Process of Learning, Agency and

Four Approaches of Teacher Learning:
Retooling; Remodeling; Revitalizing; & Reimagining (Sachs,2011)

- Learning spaces
- Expert-facilitated
- Building capacity

2-day workshop - Retooling

Classroom trial- Remodeling

- Exploration & experimentation
- Study student engagement - problematisation

- Pedagogical insights at sharing
- making explicit connections to share best pedagogy

Teacher Leader sharing - Revitalizing

Cluster-sharing – Re-imagining

- allows legitimisation
- provides multiple modes of interpretation
- developing intra and inter-networks

Elements of Teacher Learning

Agency

One element of Inner dialogue is teacher personal dissonance at work that leads to questioning the quality of their practice

Having a voice and identity in the dialogic space to co-opt peers into the deliberation of instructional practice

Learning

Making pedagogical connections by reflecting on classroom practices

Deepening of pedagogical knowledge takes place within and beyond the designed and emerging networks

Pedagogical Leadership

Taking a participative role to contribute in sharing pedagogical insights increases professional spaces for agentic behaviour

The institutional supra-structure advocates for a collaborative networked learning space where teachers become the catalysts both within and beyond the schools

Teacher Leadership As A Process



Triangulation

Teacher Leaders reported higher levels on teacher leadership variables than teacher participants!

Intensive multi-approach teacher learning processes that include:

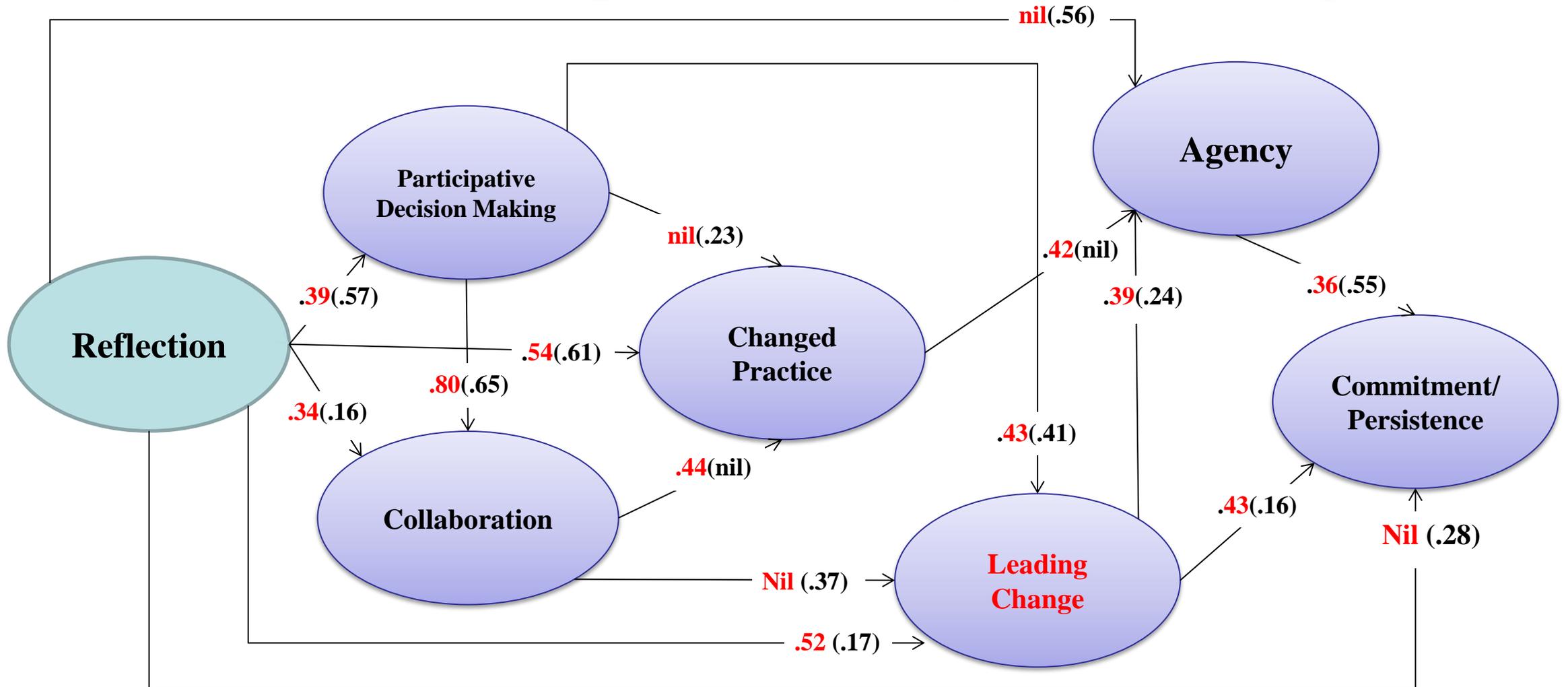
- Learning from experts
- Trialing of pedagogical ideas
- Dialogue and sharing of best practices amongst small network of Teacher Leaders

Stewards of Art Form 1 & 2 teaching who:

- Advocate for teacher learning and changed practices
- Plan and implement PD for others
- Gather the community of practice for further dialogue
- Create a fraternity of Art Form 1 & 2 teachers

Tan, L.S., Ponnusamy, L.D., Tan, K.C.K. (2018). Developing teacher leadership in pedagogical practice. In Koh, T.S., & Hung, D. Leadership For Change: The Singapore Schools. Singapore: World Scientific.

Teacher learning: Structural Equation Modeling



Differences by Group (Teacher leaders vs Teachers [in parentheses])

A Continuum on Teacher Learning and Expertise

Prescriptive \leftrightarrow Autonomy

Dissemination \leftrightarrow Critical Voice

Learning \leftrightarrow Leading

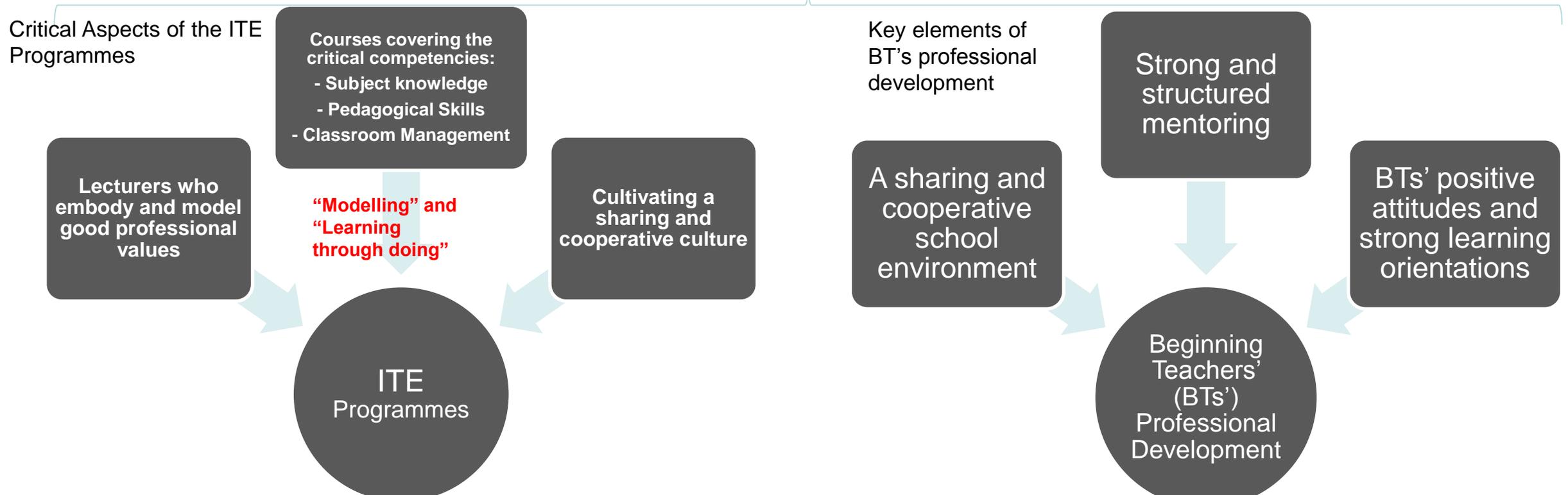
Leading Within \leftrightarrow Leading Beyond

Key Ideas

- **Greater teacher professionalism**
- **Reflective practitioner**
- **[Pedagogical] Inquiry as stance on teaching (not as weapon, report card, warranty, foundation)** (Cochran-Smith & Demers, 2010)
- **Socio-cultural leverages to promote teacher agentic behaviours**
- **Self-improving teachers; self-improving schools**

Key findings on teacher change and learning: Initial Teacher Education (OER 1413, 1511, 0410)

Andragogy (Principles of Adult Learning)



Regardless of these factors, if beginning teachers are not adequately prepared for the issues and challenges of teaching in real life, it results in a significant drop in teaching enjoyment and intention to stay for them.

Key Findings on teacher Learning and Change

- Prefer workshops and courses over Higher Degrees (OER 2412)
- Receptive to incremental change (OER 3212)
- Struggle to find the time to reflect (OER6512)
- SLs are agents of pedagogical change (OER 2412)
- **Unfamiliar with the change** that is necessary when responding to educational mandate (OER4412)
- Metalanguages and mandate in the curriculum lead to curriculum innovation and pedagogical change (OER4412)

- Teachers shape the culture of interactions in the classroom (OER 0412)
- **Different awareness of the language demands of the topic resulted in qualitative differences** between teachers implementing the same activities (OER 6512)
- Teachers unfamiliar with teaching to cater for individual differences (OER5412)

- Teachers uncertain about how to execute tasks **if they do not understand the rationale** or **interpreted them differently** from their instructors (OER 6512)
- Beliefs' about students' learning potential critical in promoting adaptivity (OER 4412)
- Years of teaching experience **not associated** with their influence of other teachers (AFR0114)

key findings on teacher change and learning in the Singapore context

- Teachers are more receptive to incremental change that are not high stake in nature
- Teacher pedagogical change takes time
- Teachers are used to teacher to the majority and they are unfamiliar with teaching to cater for individual differences, such as the slow progressing students and the high ability students
- Teachers need to be familiar with the change that is necessary when responding to educational mandate, e.g. Integrated Programme
- Years of teaching experience is not associated with pedagogical change
- School leaders are important agent for promoting pedagogical change
- The use leverages such as metalanguages and mandate in the curriculum lead to curriculum innovation and pedagogical change

Gaps and the direction of future research on teacher change and learning in the Singapore context

Establishing a robust theory-practice link in teacher learning and in school

Developing the quality of teacher learning as a community (PLC, NLC, etc.)

Finding out the sustainable PDs and how/if they have been adopted by the fraternity

Building on epistemic change & knowledge in design rather than implementing learning tasks/ lessons only

Mapping the dichotomy between agentic/autonomy vs hierarchical structure and power distance

Unpacking of what it means for teachers to be self-driven and self-reflective in PD

Teacher as Designer

- As fundamental points of departure, we view and promote teachers as the designers of curriculum innovations and learning environments. This work crucially involves the use of research evidence and other data in making pedagogical judgments in response to local educational policies and initiatives.
 - Subject-based curriculum innovation
 - Use of evidence adapted to local needs
 - Ability and rationale for making pedagogical judgments

Professional wisdom

- Professional wisdom relates to the kinds of expertise that reside *in* and *between* teachers and schools. We understand the development and growth of wisdom as being mediated by multiple factors, including teachers' motivation, readiness, and adaptivity. The growth and development of wisdom is an evolving journey with its attendant challenges, struggles, and successes.
 - The location of formal and informal expertise within and beyond schools
 - Teachers' motivation to learn, develop and grow their expertise
 - The growth and development of teacher expertise
 - The development of pedagogical agility
 - Teachers' readiness for wise action
 - Teacher struggles, challenges, and successes

Nexus of Practice

- Nexus of practice relates to the study of the spatio-temporal influences and relationships that exist between the multiple events, actions and decisions that mediate teachers' work. These include teachers' mental models, their reflexivity and reflections. Our research explores and explains these implicit and explicit dimensions that are nuanced and responsive to contexts and units of analyses at the classroom, school, and system levels.
 - Professional judgment and reflection
 - Teacher engagement in reflective and reflexive thinking
 - Teachers' mental model – consciousness of thinking
 - Teachers' learning about their own teaching through students' responses and feedback
 - Teachers' motivation to get students' feedback on their teaching and for use in their learning
 - Teachers' perceptions of their work

Macro

Pedagogical inquiry;
Platforms to support collaborative learning such as NLCs, PLCs;
Self-improving teachers (and thus self-improving schools) as the ultimate goal

Micro

Teacher change in terms of subject matter and pedagogical knowledge; Change in understanding of how students learn and how teachers teach; Teacher becoming

Early Career Teachers

Experienced Teachers

Teacher Leaders

Master Teachers

Teacher as Designer

Professional Wisdom

Nexus of Practice

Working Towards A Future-Ready Learners' Agenda: Preparing for Life through Purposeful Learning (*and not just for Performance*)



Joy of Learning:	Life-long learning dispositions, Life-deep learning expertise, Life-wide interests
Entrepreneurial Dare:	Life-deep expertise and mastery, Life-wide boundary crossing
Social Cohesion:	Life-wise virtues, Life-long character dispositions, Life-wide cultural appreciation



Thank you