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*Academy for Leadership in Teacher Education (ALiTE)
International Webinar Series for Exemplary Scholarship*

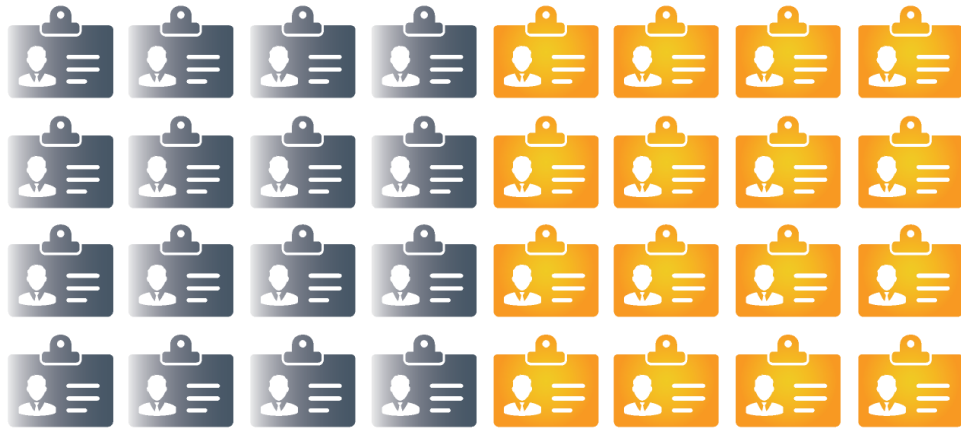
Teacher Education in post-pandemic times: The Singaporean Experience

Prof Low Ee Ling
Dean, Teacher Education
3 May 2021

INSPIRING LEARNING
TRANSFORMING TEACHING
ADVANCING RESEARCH

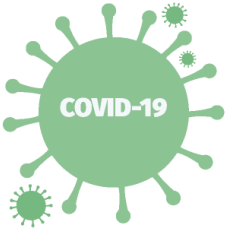
Worldwide Disruptions

Fourth Industrial Revolution & Covid-19 Pandemic



148

**MILLION PEOPLE
INFECTED
WORLDWIDE**



800 **MILLION JOBS
DISPLACED**
MCKINSEY ESTIMATE



Note: Numbers are accurate as of time of presentation

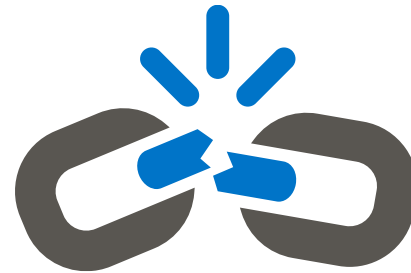
Worldwide Disruptions

What have they revealed about our education systems?



UNPREPARED

for the multiple
disruptions



NOT

robust and resilient
enough



INEQUALITY

exposed

World Bank Group (2020): <https://www.worldbank.org/en/data/interactive/2020/03/24/world-bank-education-and-covid-19>

Sources: World Economic Forum (2020): <https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning>

Worldwide Disruptions

Seizing opportunities amid disruptions

“In the midst of crisis, we are seizing opportunities to reshape our education system for the longer term, and to accelerate improvements in the way we teach and learn.”

Mr Lawrence Wong
Minister for Education
MOE Press Release
25 August 2020



Worldwide Disruptions

Seizing opportunities amid disruptions

2 Seize the chance to rethink systems and make them resilient, nimble and innovative

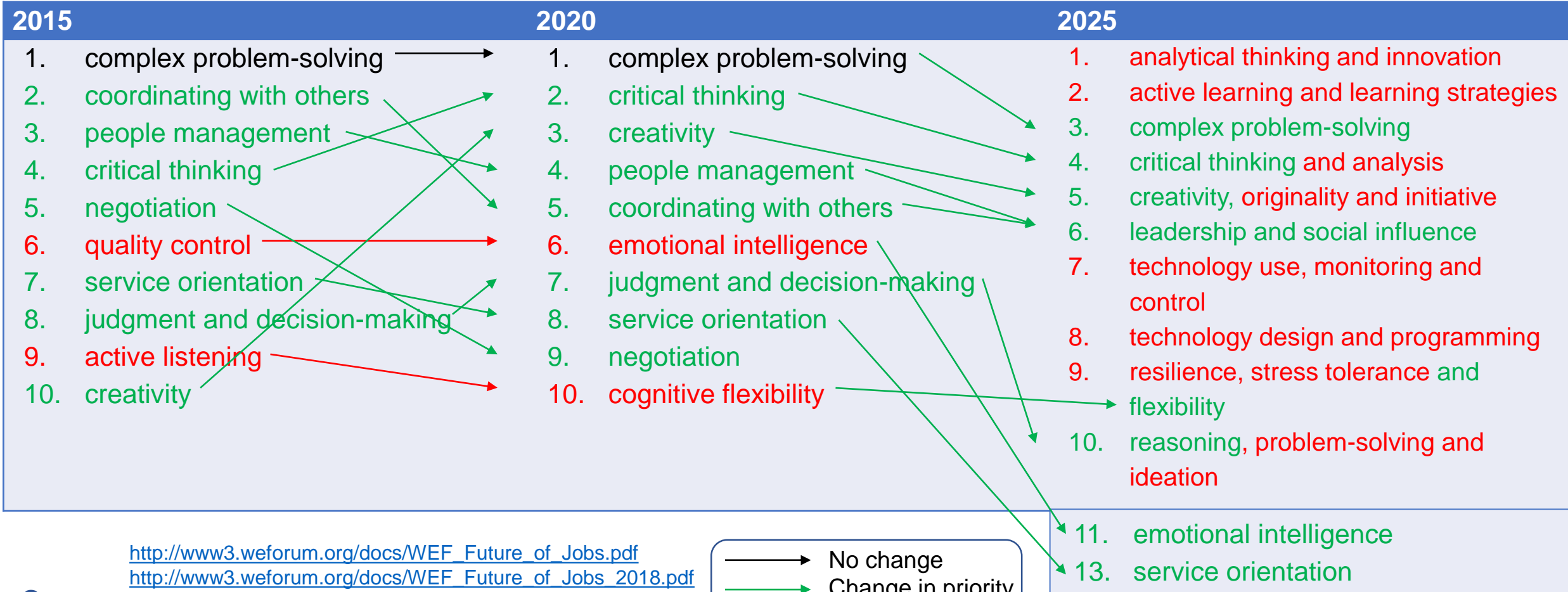
3 Rethinking must be contextual

1 Strengthen foundations and build upon them

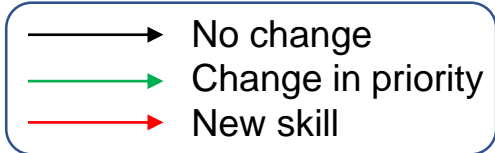


Rethinking Education Paradigms for the Future

Top-10 Skills Employers Want (WEF, 2016, 2018, 2020)



http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf
http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf
Source: http://www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf



Rethinking Education Paradigms for the Future

OECD Education 2030 Framework: Competencies Definition (OECD, 2019)

“The concept of competency implies **more than just the acquisition of knowledge and skills**; it involves the **mobilisation of knowledge, skills, attitudes and values** to meet complex demands. Future-ready students will need both broad and specialised knowledge.”

COMPETENCE



[https://www.oecd.org/education/2030-project/teaching-and-learning/learning/transformational-competencies/Transformative Competencies for 2030 concept note.pdf](https://www.oecd.org/education/2030-project/teaching-and-learning/learning/transformational-competencies/Transformative%20Competencies%20for%202030%20concept%20note.pdf)

Source: [competencies/Transformative Competencies for 2030 concept note.pdf](https://www.oecd.org/education/2030-project/teaching-and-learning/learning/transformational-competencies/Transformative%20Competencies%20for%202030%20concept%20note.pdf)

Rethinking Education Paradigms for the Future

OECD Education 2030 Framework: Transformative Competencies (OECD, 2019)

Transformative Competency 1:

Creating New Value

- To achieve stronger, more inclusive and more sustainable development
- Creatively think and develop innovations to offer vital solutions to economic, social and cultural dilemmas

Transformative Competency 2:

Reconciling Tensions and Dilemmas

- Need system thinkers who think and act
 - in a more integrated way
 - taking into account the interconnections and interrelations between contradictory or incompatible ideas, logics and positions
 - from both short- and long-term perspectives

Transformative Competency 3:

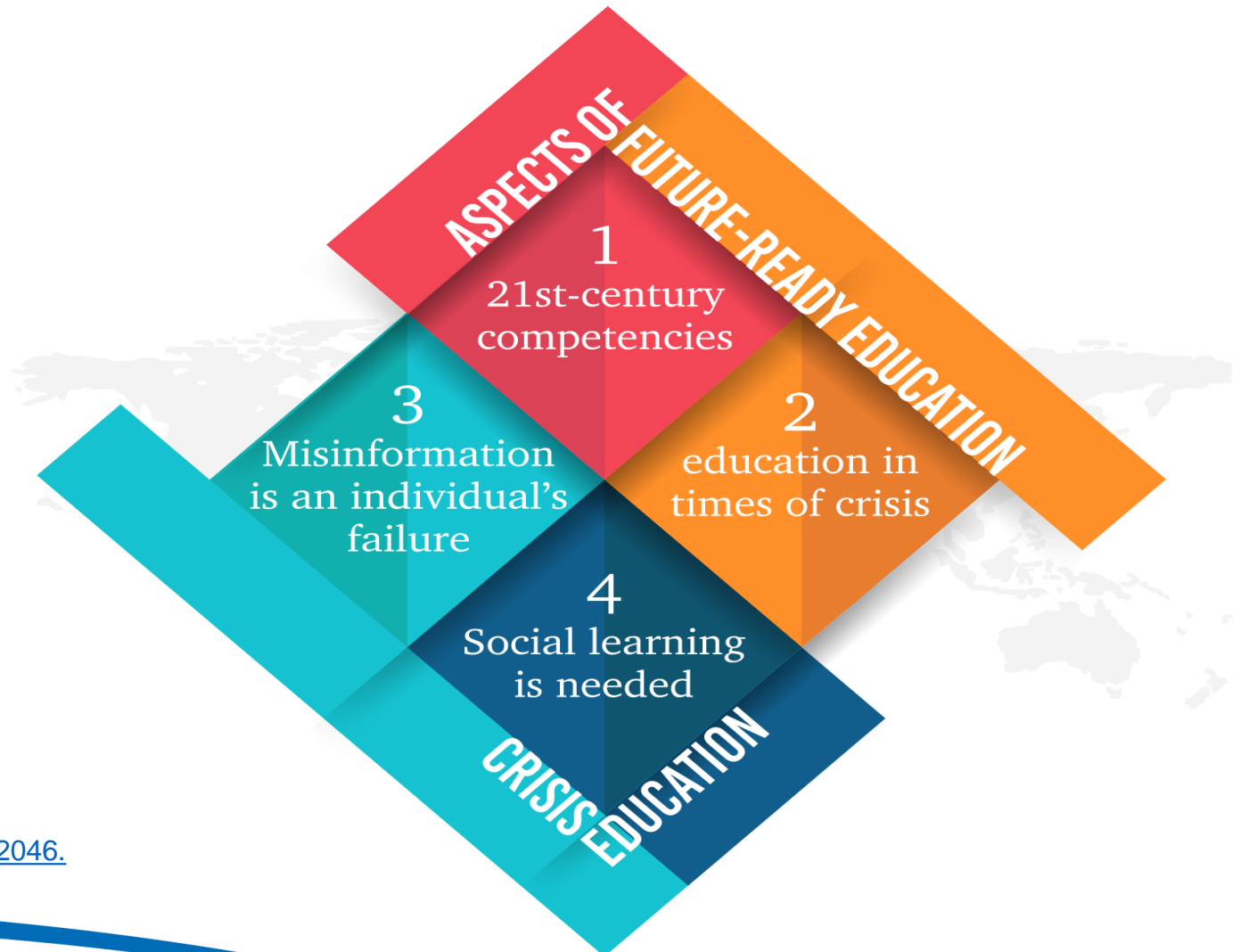
Taking Responsibility

- Possesses a sense of responsibility, moral and intellectual maturity
- Accepting accountability for one's actions
- Able to reflect and evaluate the consequence of the action

Source: https://www.oecd.org/education/2030-project/teaching-and-learning/learning/transformative-competencies/Transformative_Compentencies_for_2030_concept_note.pdf

Rethinking Education Paradigms for the Future

What does “crisis” education look like? (Kidman & Chang, 2020)



[https://www.tandfonline.com/doi/pdf/10.1080/10382046.](https://www.tandfonline.com/doi/pdf/10.1080/10382046.2020.1730095?needAccess=true)

Source: [2020.1730095?needAccess=true](https://www.tandfonline.com/doi/pdf/10.1080/10382046.2020.1730095?needAccess=true)

Rethinking Education Paradigms for the Future

3 ways the coronavirus pandemic could reshape education (Tam & El-Azar, 2020)

EDUCATION INNOVATIONS

1. Catalyst for educational innovative solutions
2. Learning lifestyle with 5G



QUALITY OF LEARNING & DIGITAL ACCESS

1. At-risk less affluent and less digitally savvy families

IMPORTANCE OF PUBLIC-PRIVATE PARTNERSHIPS

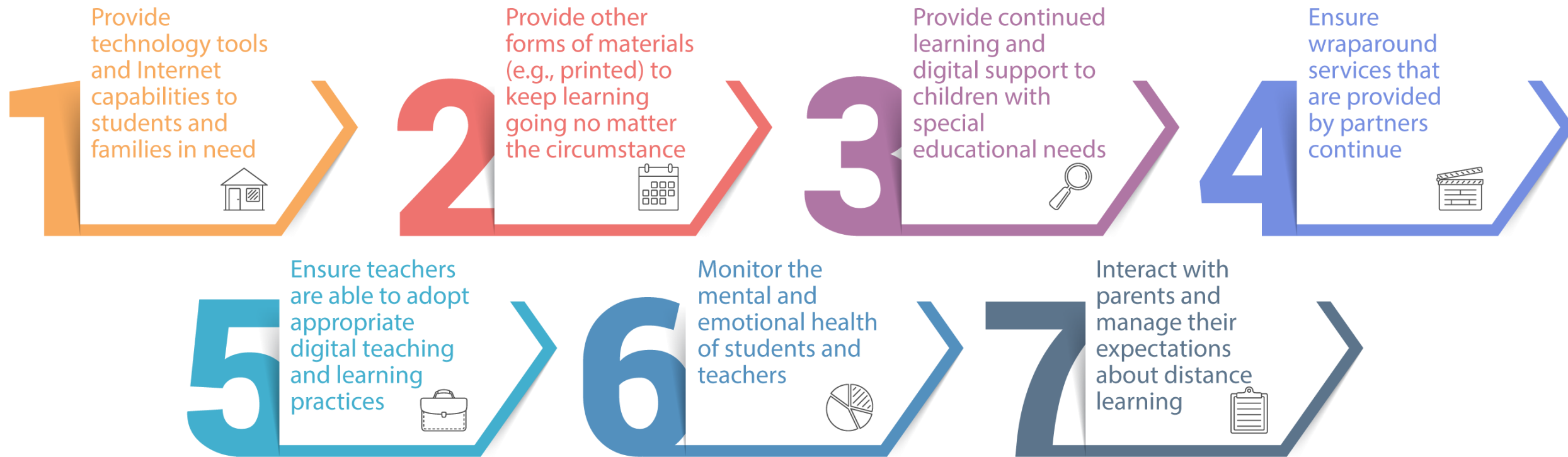
1. Diverse stakeholders collaboration during time of crisis

[https://www.weforum.org/agenda/2020/03/3-ways-coronavirus-is-reshaping-education-and-what-changes-](https://www.weforum.org/agenda/2020/03/3-ways-coronavirus-is-reshaping-education-and-what-changes-might-be-here-to-stay)

Source: [might-be-here-to-stay](https://www.weforum.org/agenda/2020/03/3-ways-coronavirus-is-reshaping-education-and-what-changes-might-be-here-to-stay)

Rethinking Education Paradigms for the Future

7 Equity Considerations for Schools (Ali & Herrera, 2020)



Source: <https://www.southerneducation.org/publications/covid-19-digital-equity>

Rethinking Education Paradigms for the Future

A Framework for Restarting and Reinventing School (Darling-Hammond et al., 2020)



Source: <https://learningpolicyinstitute.org/product/restarting-reinventing-school-covid-report>

Rethinking Education Paradigms for the Future

Four enablers transforming teachers into agents of system change (OER, n.d.)

Teachers understand and assume their roles as **professionals and experts in pedagogical content knowledge**

Teachers develop a capacity to design for **positive outcomes in teaching and learning**



Teachers share and collaborate with their peers in an **active learning culture in schools**

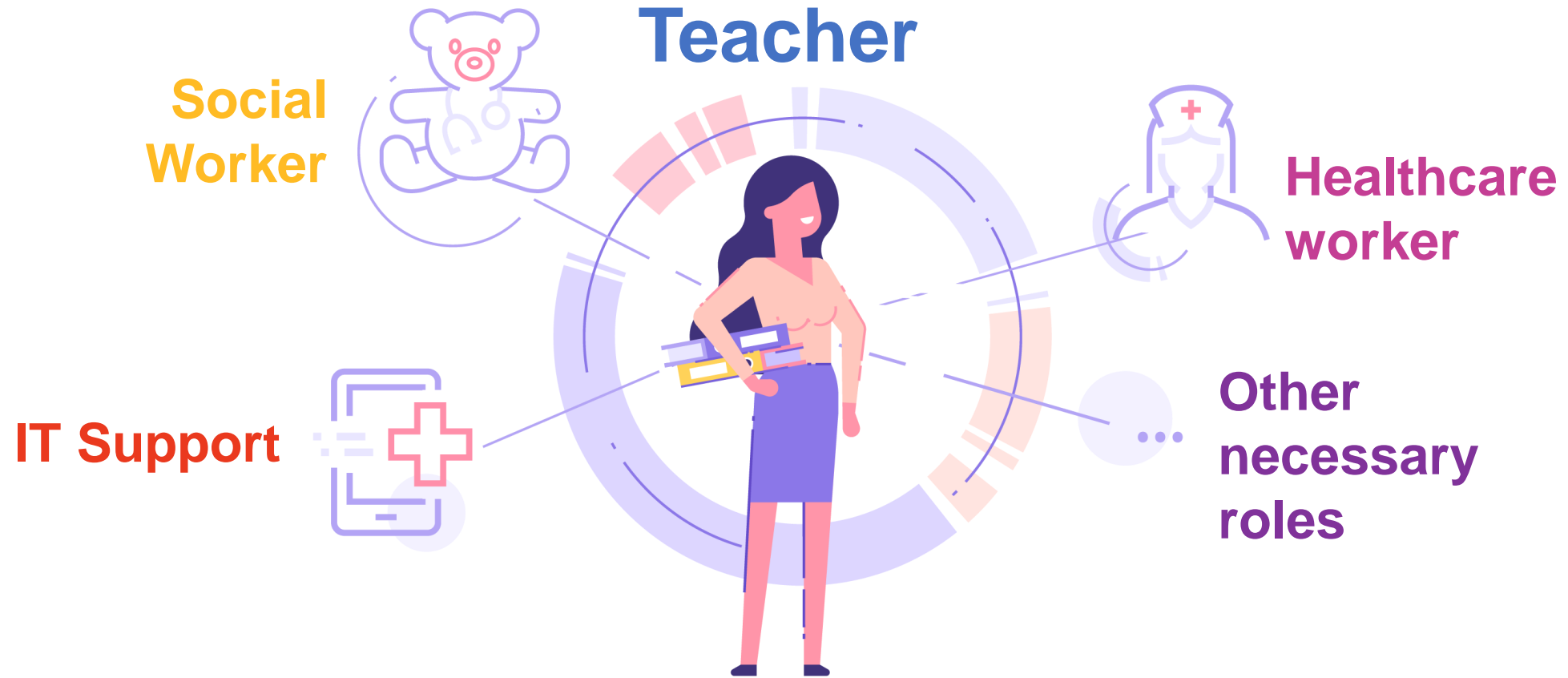
Teachers design and make use of resources provided within **a strong curriculum framework**

<https://www.nie.edu.sg/docs/default->

Source: [source/oer/oer_rcr_final_for_web_v2.pdf?sfvrsn=0](https://www.nie.edu.sg/docs/default-source/oer/oer_rcr_final_for_web_v2.pdf?sfvrsn=0)

Rethinking Education Paradigms for the Future

Educators get new roles (Tan, 2020)



[https://www.channelnewsasia.com/news/commentary/teachers-coping-](https://www.channelnewsasia.com/news/commentary/teachers-coping-covid-19-coronavirus-new-roles-challenges-13055482)

Source: [covid-19-coronavirus-new-roles-challenges-13055482](https://www.channelnewsasia.com/news/commentary/teachers-coping-covid-19-coronavirus-new-roles-challenges-13055482)

Rethinking Education Paradigms for the Future

Weathering Educational Changes (Johannis & Hung, 2020)



5Cs of schooling

- Character and Citizenship Education
- Creative Thinking
- Critical thinking
- Compassion
- Connectedness

Source: <https://singteach.nie.edu.sg/issue75-weathering-educational-changes>

Rethinking Education Paradigms for the Future

Weathering Educational Changes (Johannis & Hung, 2020)



Source: <https://singteach.nie.edu.sg/issue75-weathering-educational-changes>

5Cs of schooling

Every teacher is a **CCE** teacher, and every teacher role models and teaches **critical** and **creative thinking**. Likewise, the teacher exemplifies **connectedness** and **compassion** towards all students.

Rethinking Education Paradigms for the Future

Toward Universal Quality Education (Bhula & Floretta, 2020)

1. **Support caregivers**

at home to help children learn while schools are closed

2. As schools reopen, educators should use low-stakes assessments

to **identify learning gaps**



3. Tailor children's instruction to help them **master foundational skills** once learning gaps are identified

Source: https://ssir.org/articles/entry/a_better_education_for_all_during_and_after_the_covid_19_pandemic#bio-footer

Rethinking Education Paradigms for the Future

Reimagining the future of skills: What do young people think? (Fore & Moritz, 2020)



1 Modern skills,
not old fashioned
curricula

2 Soft skills are key

3 Digital connectivity
and digital learning

4 Reach vulnerable
communities

Source: <https://www.weforum.org/agenda/2020/07/reimagining-future-skills-what-we-learned-young-people?>

Rethinking Education Paradigms for the Future

Preparing educators for the time of COVID ... and beyond (Darling-Hammond & Hyler, 2021)

MORE COGNITIVE AND METACOGNITIVE STRATEGIES FOCUSED ON DEEPER LEARNING

- 1 Invest in high-quality educator preparation
- 2 Transform educator learning opportunities to match current needs
- 3 Support mentoring and new teacher roles
- 4 Create collaboration time



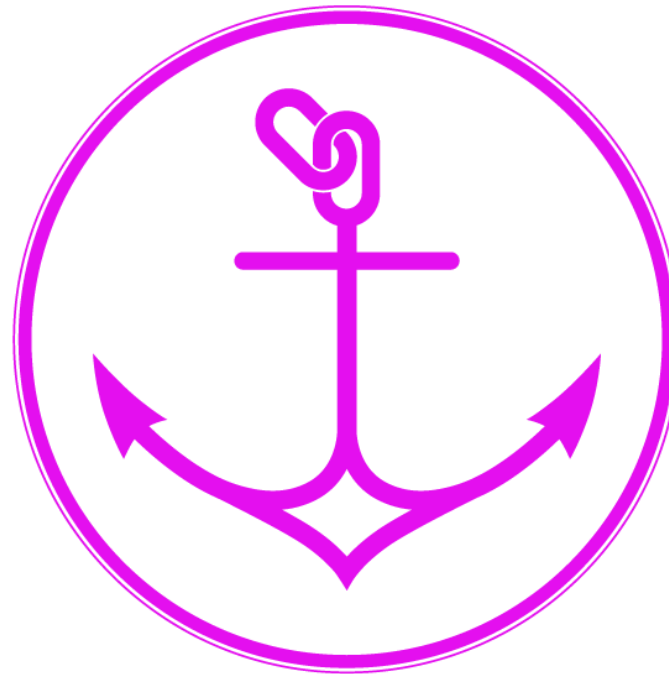
Source: <https://www.tandfonline.com/doi/full/10.1080/02619768.2020.1816961>

Three Anchors of Teacher Education

VALUES-DRIVEN



EVIDENCE-INFORMED



FUTURE-FOCUSED



VALUES-DRIVEN

Setting up of CCE Centre



V³SK

<https://repository.nie.edu.sg/bitstream/10497/15504/1/TE21%20online%20version%20-%20updated.pdf>

New CCE course



Expanding Environment Framework

The Singapore Vision for TE

NIE's Learning "4" Life



Multiple pathways across the continuum of teachers' career-long growth and development (pre-service, beginning to professional teacher)



Building professional ethos and values via strengthening values-based components, strong personalised mentorship



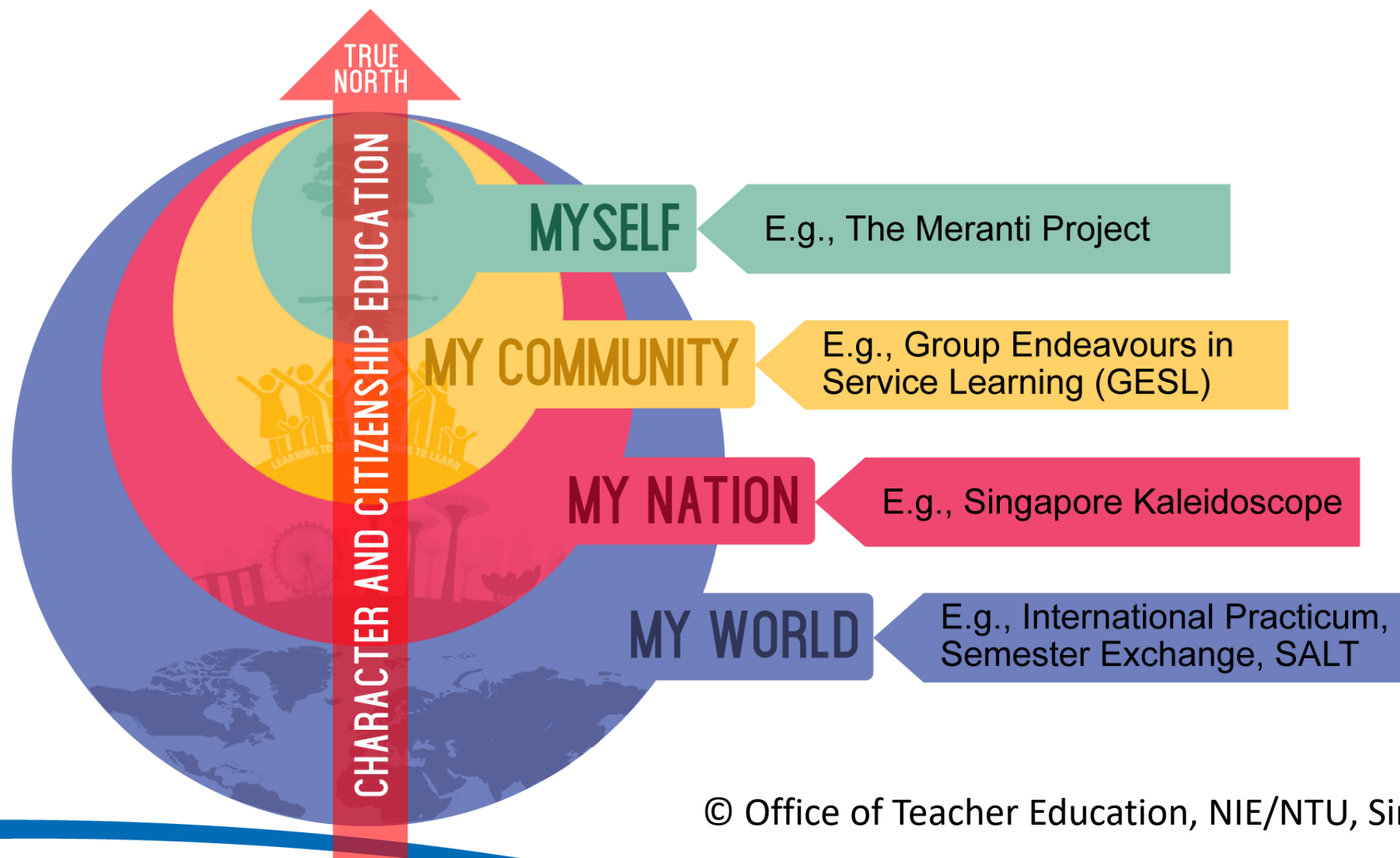
Deepening of professional expertise (PPI, STP for all programmes)



Multiple perspectives, global and local, digital and multimodal literacies

The Singapore Vision for TE

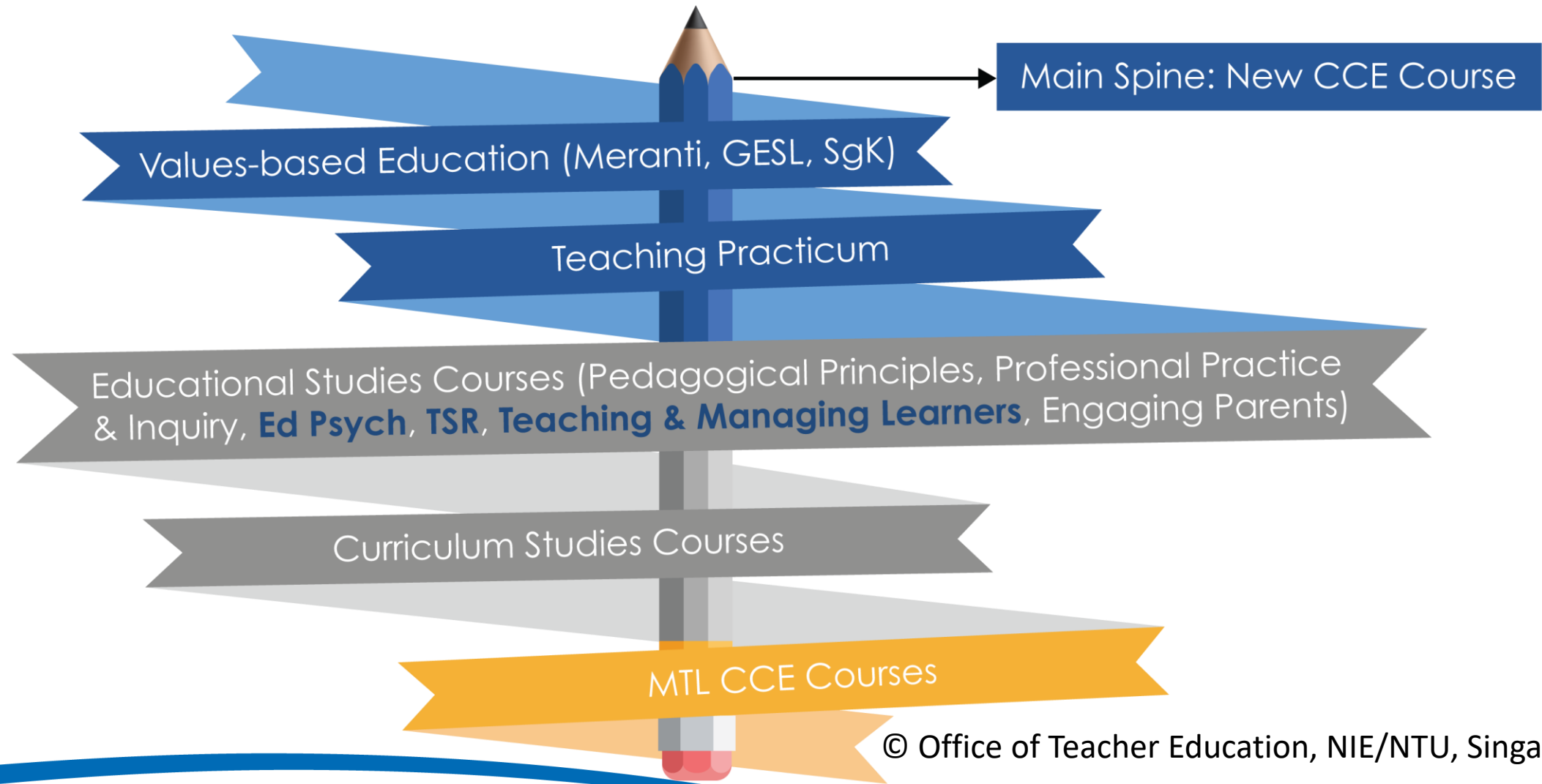
NIE's Values-based Education: Expanding Environment Framework



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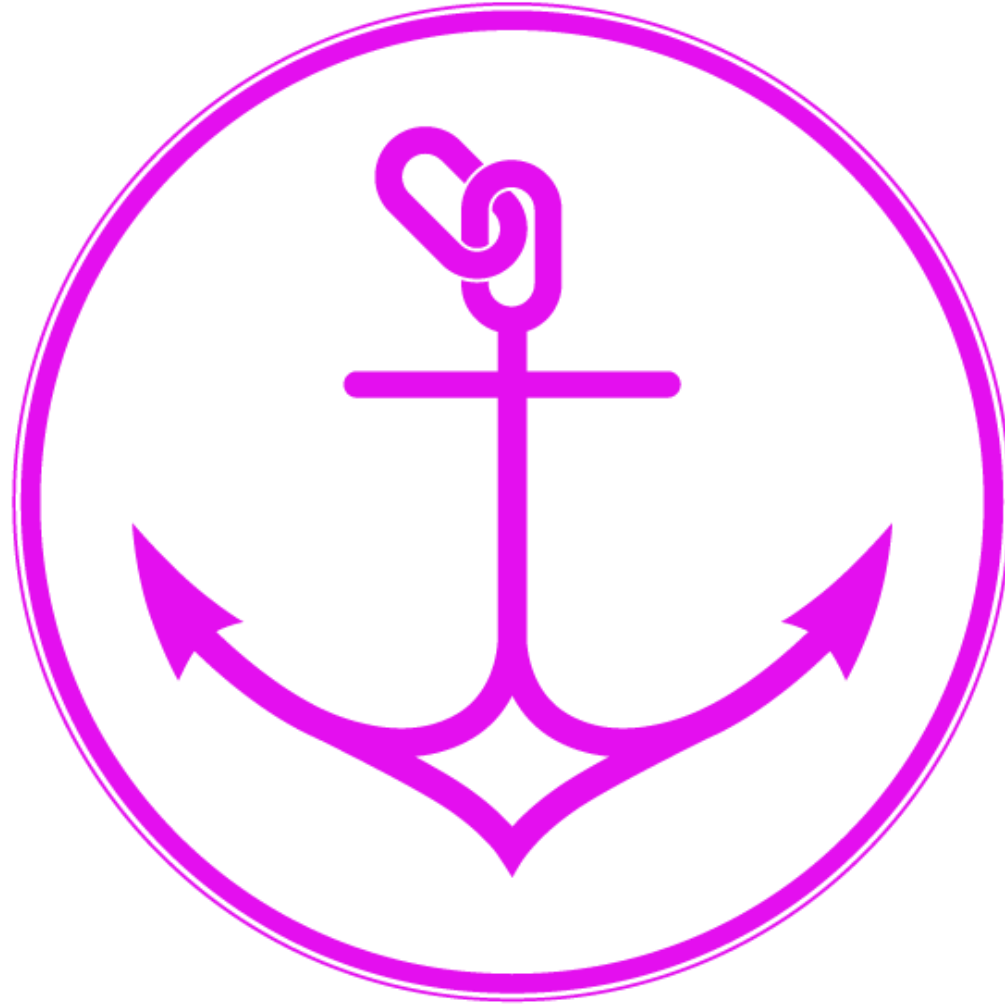
Strengthening of CCE

CCE coverage within ITP



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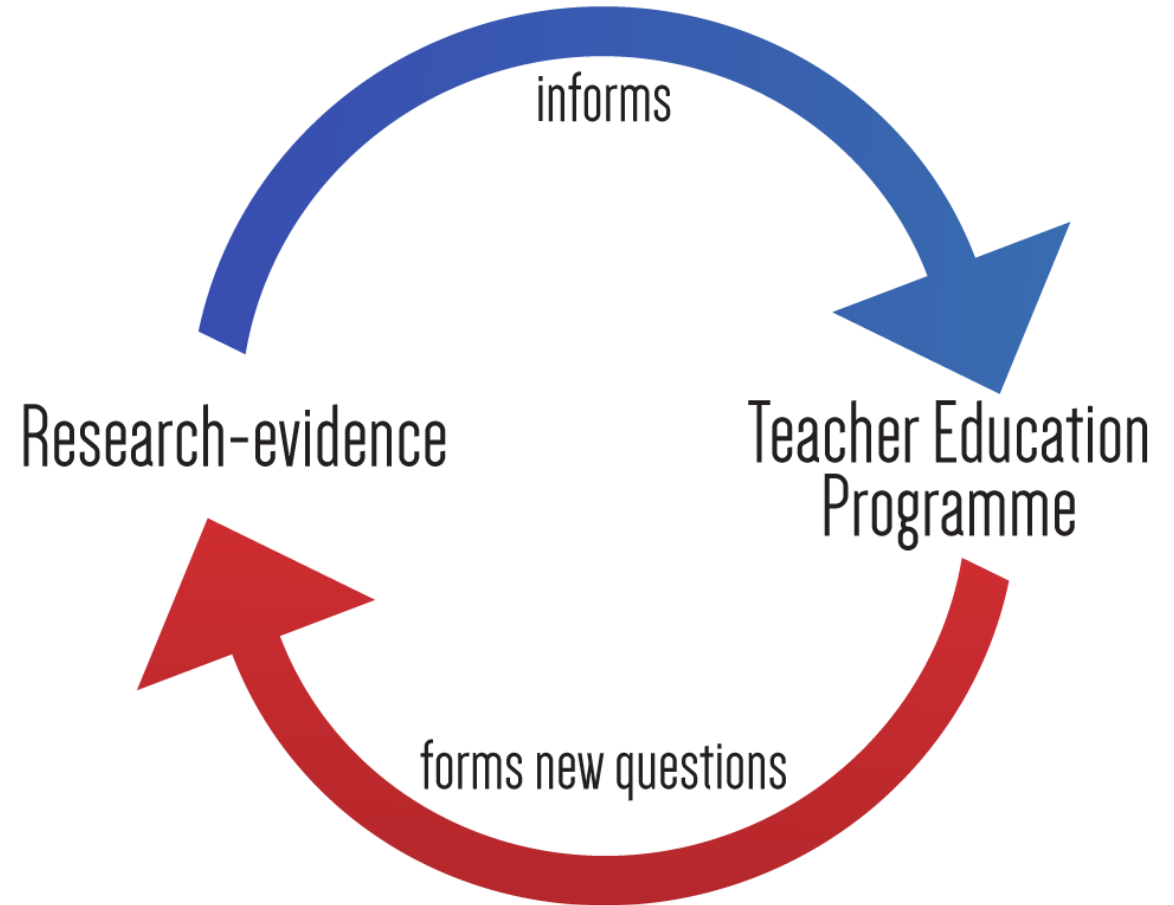
EVIDENCE-INFORMED



Evidence-informed Initial Teacher Preparation

Suite of research projects

Suite of research projects on Building an Evidence base for Teacher Education has been led by Dean, TE since 2009 to provide evidence-informed design and delivery of our programmes



Evidence-informed Initial Teacher Preparation

Policy and Teacher Education Programmes

Suite of 7 studies from 2009–2022 focusing on Teacher Education, Initial Teacher Preparation and Teacher Development

Findings:

- Need to strengthen Theory–Practice Nexus
- More opportunities for authentic learning for pre-service TE
- Contract teaching experiences make a difference on pre-service teacher learning
- More support for beginning teachers needed
- Structured mentoring programmes are important for Beginning Teachers
- Status update: Studying impact of 16-month PGDE programmes

Impact on TE Programmes

- Findings informed the enhancements of the Teaching Scholars Programmes (Enhanced BA/BSc (Ed)) and Enhanced 16-month PGDE Programme
- Teacher Leaders Programme to help mentor junior and beginning teachers

Impact on Policy

- Compulsory teaching stint (via contract teaching or enhanced school experience) is compulsory for PGDE students
- More schools assign protected time for mentoring and lesson observations to support Beginning Teachers

Evidence-informed Initial Teacher Preparation

Translating Research into Practice

Teacher Professionalism and Learning (TPAL)–Teacher Education (TE) Steering Committee

- NIE Research–Practice Nexus on TPAL from NIE research in 2021
- TPAL–TE Ideation Session
 - Brought together MOE, AST and NIE partners
- *NIE Perspectives Webinar Series*
 - Aimed at working with NIE faculty to translate TPAL research into ITP programmes
- Accepted co-edited book on TE–TPAL by Springer
 - Book title: *Teacher Professional Learning for Pedagogical Leaders*
 - Co-Editors: Lee Shu-shing, Chua Bee Leng, Alexius Chia, Monica Ong, Pamela Costes-onishi

Oversee
strategy, research
development and
translation of TPAL into
TE programmes



Ensure
that the strategic goals of
4th Tranche research are
achieved



Ensure
translation of 3rd Tranche
findings into NIE programmes

FUTURE-FOCUSED



Changing Education Landscape

Urgent Driver of Change (Tan 2020, *The Straits Times*, 10 Sept 2020 p A21: Opinion)

Pandemic is more than a medical issue: it has ramifications on our society, politics, economy and local and global environment

The past: Specialisation and depth of knowledge

The future: Interdisciplinarity, flexibility, lifelong learning

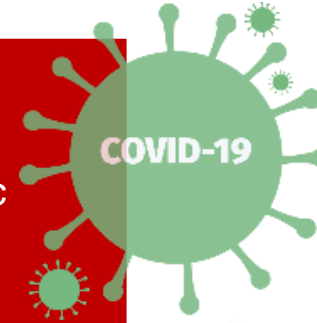
Type of faculty we need: depth and breadth of knowledge, agile, solvers of “wicked problems” that are ill-defined, mutating and transcend disciplinary boundaries and established bodies of knowledge

Changing Education Landscape

Key Drivers of Education Change

Changing Operating Context

Rapid technological change and disruption, including the pandemic
Higher public expectations and aspirations
Ageing population and falling cohort sizes
Economic weight shifts to Asia
Inequality and mobility a growing concern
More diverse society, with more diverse needs (e.g., SEN)



NTU Education 2025

MOE “Learn for Life:
Remaking Pathways”
initiative

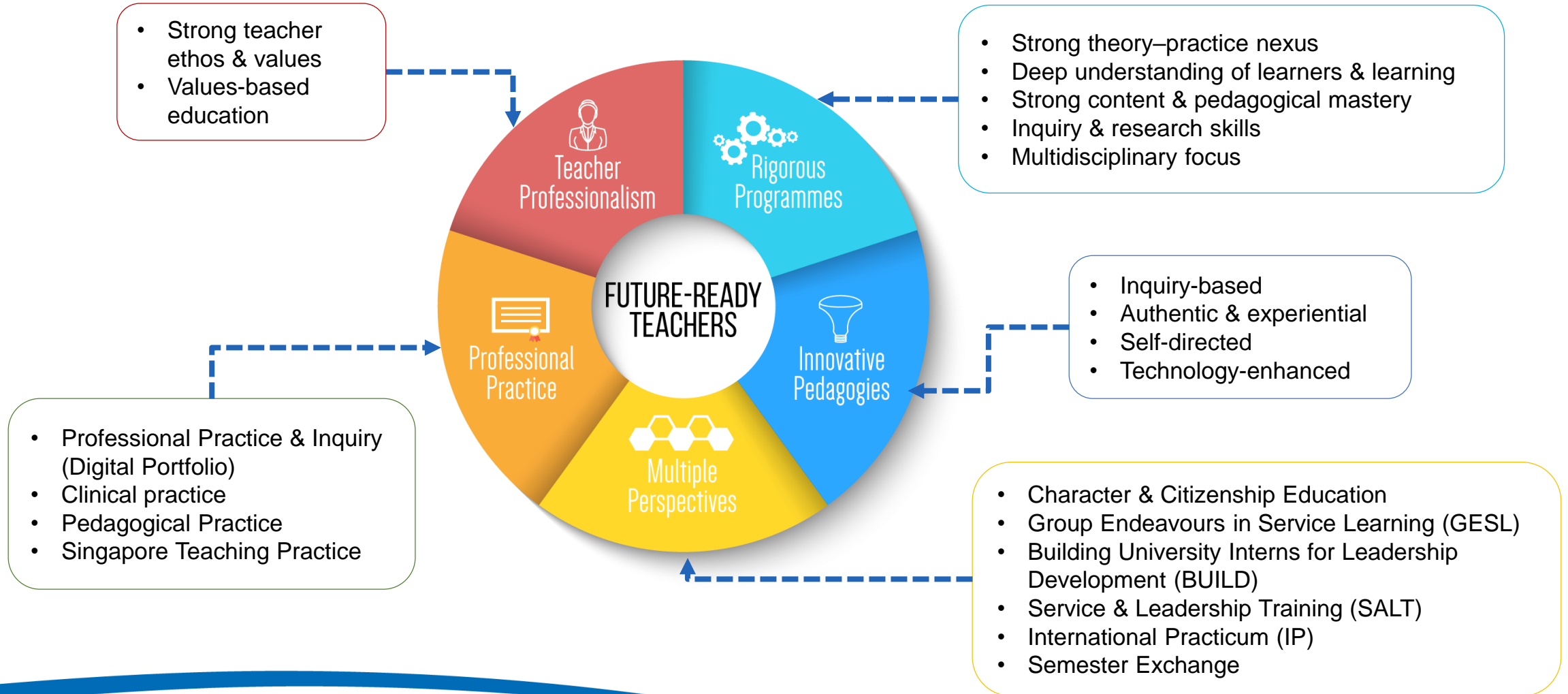
Other opportunities and
challenges

What does it mean for TE?

Adapted from: NSR 2020 report

The Singapore Approach for TE

Future-ready Teachers for Future-ready Learners



The Singapore Approach for TE

Responding to Covid-19

1

100% online and virtual platforms were designed for the Circuit Breaker period

2

Revamping teaching practicum to ensure the enactment of virtual lessons

3

Mixed Modality Practicum (55% of face-to-face & 45% HBL)

4

Use of virtual platforms to engage partner organisations for service learning

5

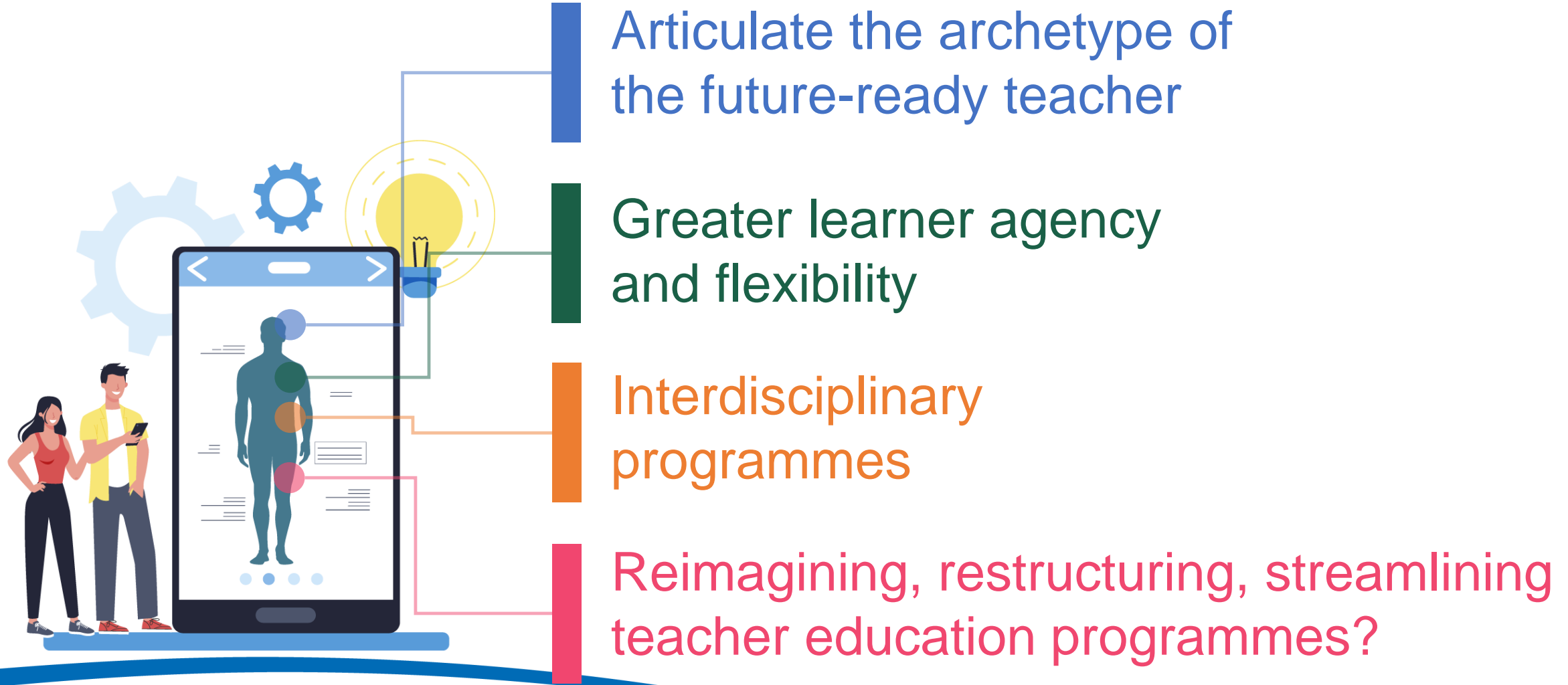
Virtual International Exchanges

6

Envisage collaborative and virtually open classroom of the future

The Singapore Approach for TE

Reimagining Teacher Education



LEARN FOR LIFE Initiative

06 SUPPORT OUR EDUCATORS: SkillsFuture for Educators

The sun represents what is critical for the system to work well: our teachers. Through SFEd, we are upgrading their skills and professionalism.

03 STRUCTURAL CHANGE: Ignite Joy of Learning

The first structural change is to nurture joy of learning, by making changes to the PSLE scoring system and reducing exam load.

01 BASIC PURPOSE: Ensure Education Is an Uplifting Force

The ground represents our mission, which is making sure every child has opportunities. No child is left behind because of their family background.

05 STAY FUTURE-READY: Refresh Our Curriculum

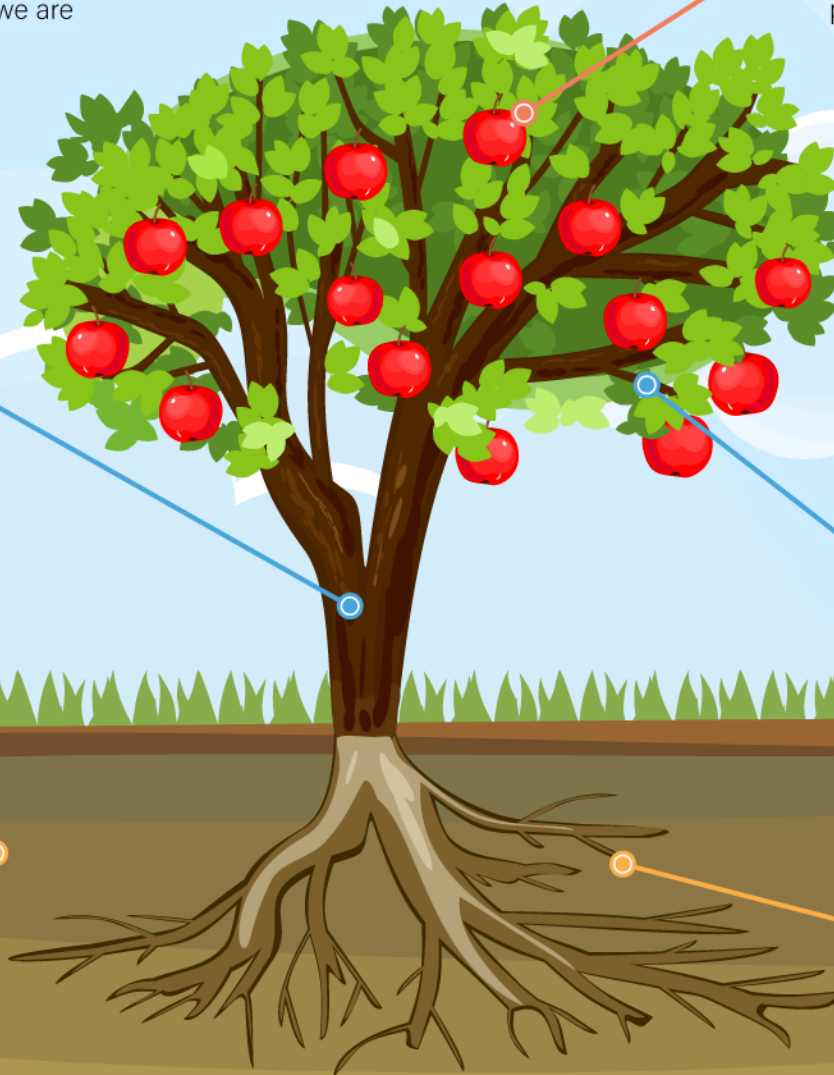
The leaves and fruits represent what we are populating the classroom with, which is refreshing our curriculum to prepare our students to be future-ready.

04 STRUCTURAL CHANGE: One Secondary Education, Many Pathways

The second structural change is to phase out streaming and replace it with full Subject-based Banding.

02 HOLD ONTO OUR ROOTS: Learn Languages for Life

The roots represent the cornerstone of our education: bilingualism and learning languages for life.



06

SUPPORT OUR EDUCATORS:

SkillsFuture for Educators

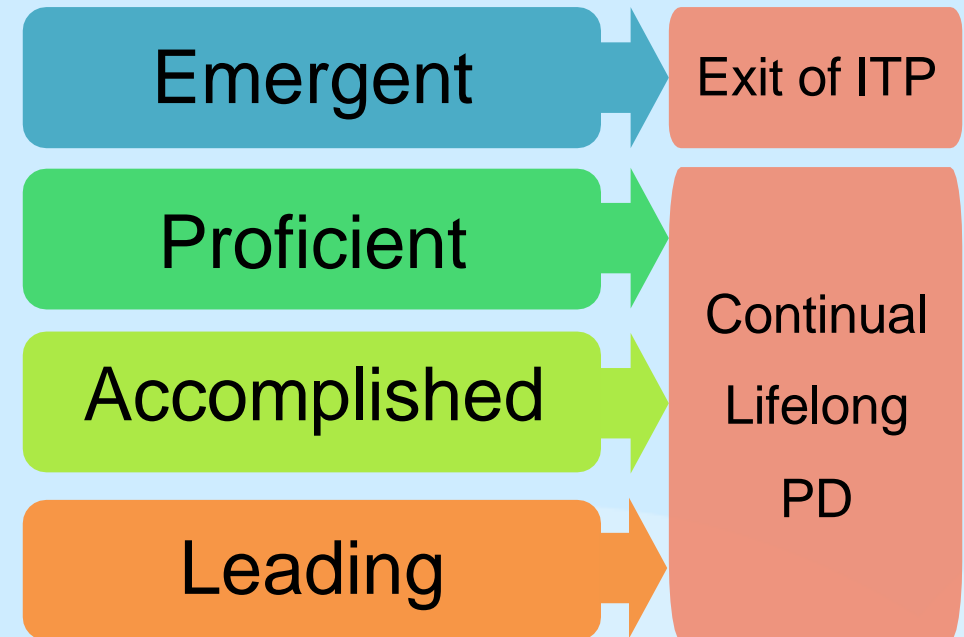
For the Learn for Life Initiative, visit

https://www.moe.gov.sg/microsites/cos2020/infographics/COS%202020_full-version.pdf

Six Priority Areas



Levels of Practice



Future-ready Teachers

for Future-ready Learners



“The role of all educators in pandemic times is to keep learning going no matter when, no matter what and no matter how.”

Low Ee Ling, 2020

We Salute You | Happy Teachers' Day 2020

[YouTube video]

<https://www.youtube.com/watch?v=oBmKketHPJA&feature=youtu.be>



An Institute of



Thank you for listening

INSPIRING LEARNING
TRANSFORMING TEACHING
ADVANCING RESEARCH