

Designing for Scale and Localising for Inclusion: Towards or Away from Technology-Enabled Teacher Professional Development at Scale?

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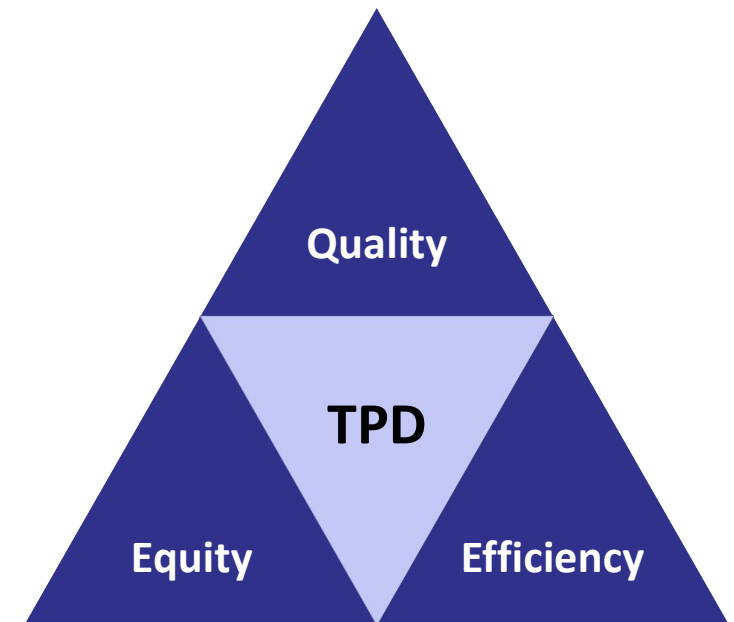
2nd Annual Public Lecture Series

BEYOND STANDARD SCRIPTS

IMAGINING NEW FUTURES IN DIGITAL EDUCATION

Teacher Professional Development: Persistent Challenges

- Teacher professional development has always been faced with the challenges of **equity, quality and efficiency**. These challenges are particularly significant for teachers serving **marginalized communities** or are from these communities.



Scaling Professional Development: Opportunities and Challenges

Opportunities

Emerging technologies provide the **opportunities** to **scale** quality professional development through access to:

Resources

- Increased availability of professional learning resources and strategies tailored to learners from marginalised groups

Support

- Flexible and personalised learning support for teachers

Challenges

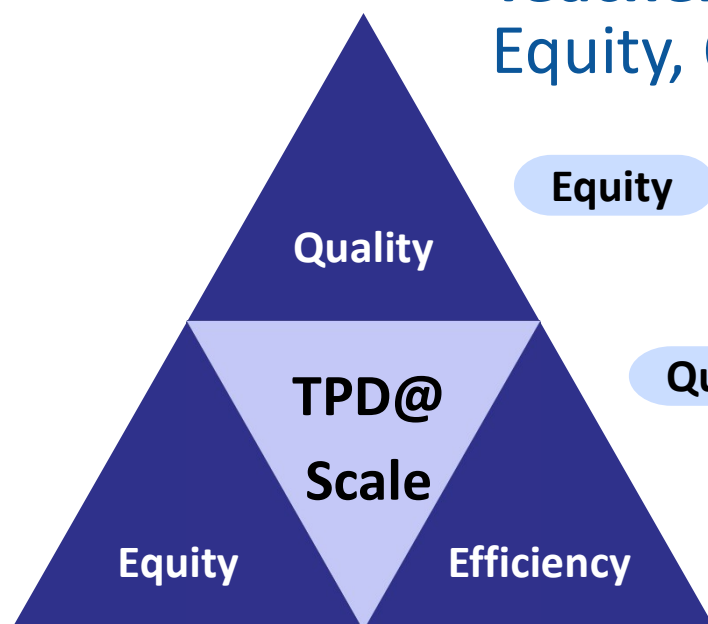
- Designing for scale may lead to a **one-size-fit-all** solution;
- Standardised programmes may **fail to address** teachers' **diverse learning needs** under diverse contexts.

Localisation is critical for inclusion to ensure equitable quality professional development at scale.

Two Key Questions

- (1) Have planned teacher professional development increasingly become disempowering?
- (2) How can teachers be empowered to engage in their own professional learning?

Teacher Professional Development at Scale: Equity, Quality & Efficiency



Equity

accessible and inclusive for all teachers

Quality

adheres to the principles of effective TPD (Incorporates active learning, learning by doing, supports collaboration, provides coaching and expert support, and offers opportunities for feedback and reflection)

Efficiency

optimization of inputs to achieve desired outputs, lifelong learning and cost-effectiveness

Teacher Professional Development at Scale: Equity, Quality & Efficiency

Effective TPD

Learning @Scale

Challenges in the Global South

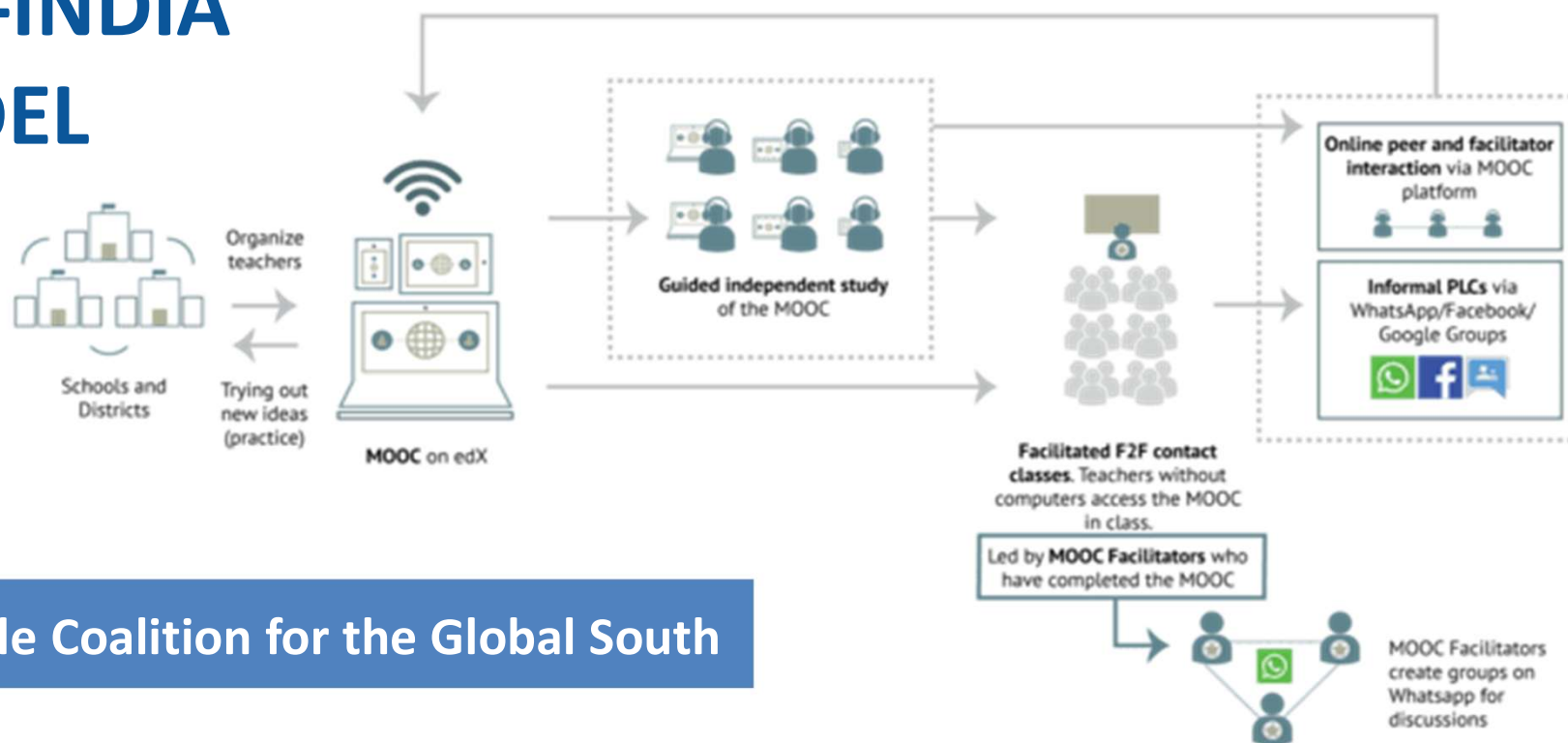


Teacher Professional Development at Scale: Equity, Quality & Efficiency

Enabled by:

- TPD structures which are embedded in the education ecosystem, not 'added on'
- access for all members of the education workforce to regular, high-quality, job-embedded PD opportunities and experiences throughout their careers
- harnessing the power of digital technologies to support and enhance professional learning activities in ways appropriate to the context

TESS-INDIA MODEL

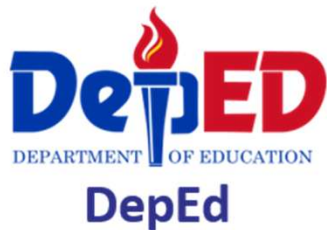


TPD@Scale Coalition for the Global South

ELLN Digital Model (The Philippines)

A blended model for teacher professional development (TPD) as an alternative to the traditional face-to-face (F2F) cascade model

Lead organisations



Department of Education,
Office of the Undersecretary for
Curriculum and Instruction,
Bureau for Learning Delivery



Foundation for Information
Technology Education and
Development

External Funding



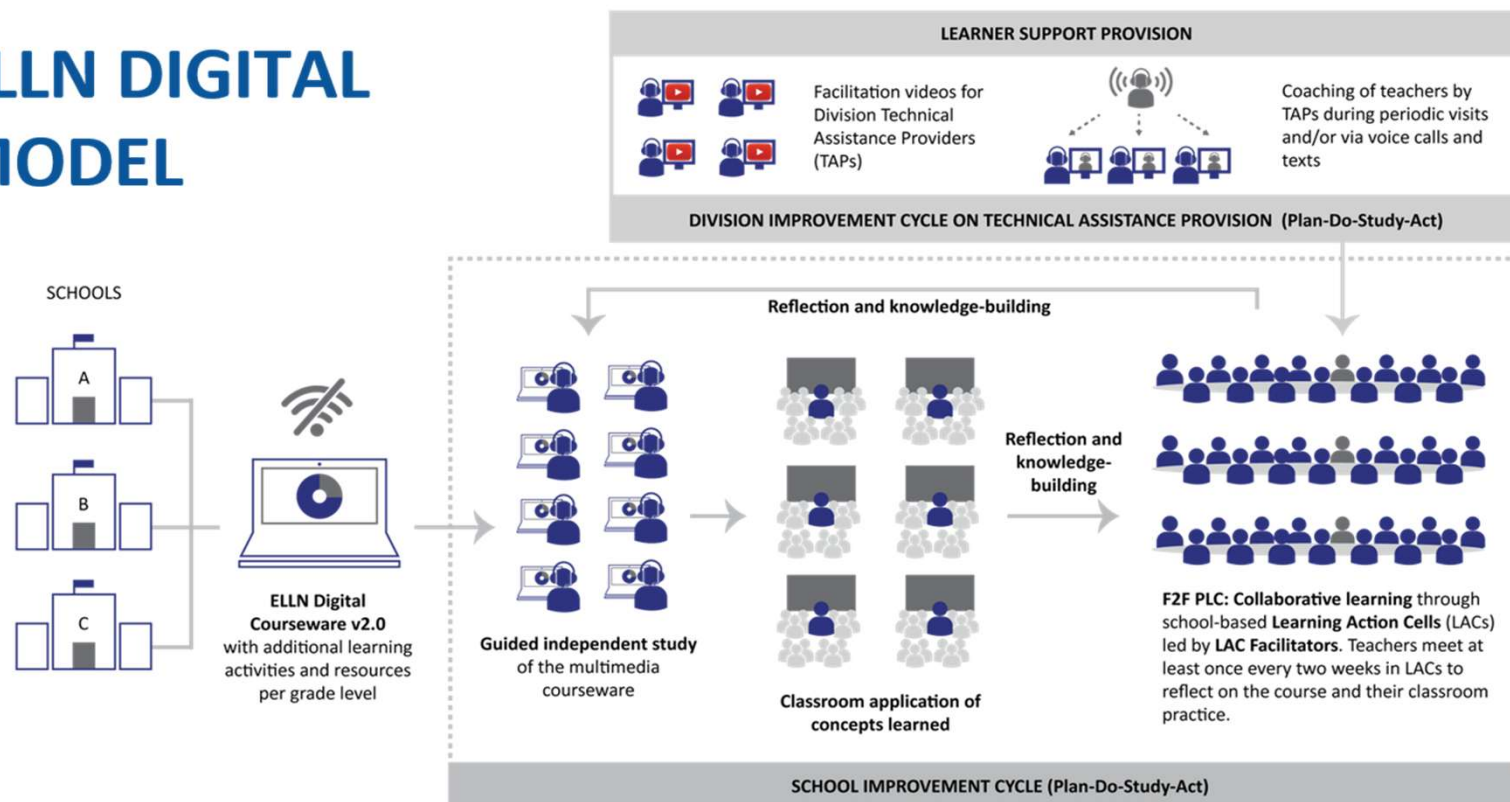
U.S. Agency for International
Development (U.S.)



International Development
Research Centre (Canada)



ELLN DIGITAL MODEL



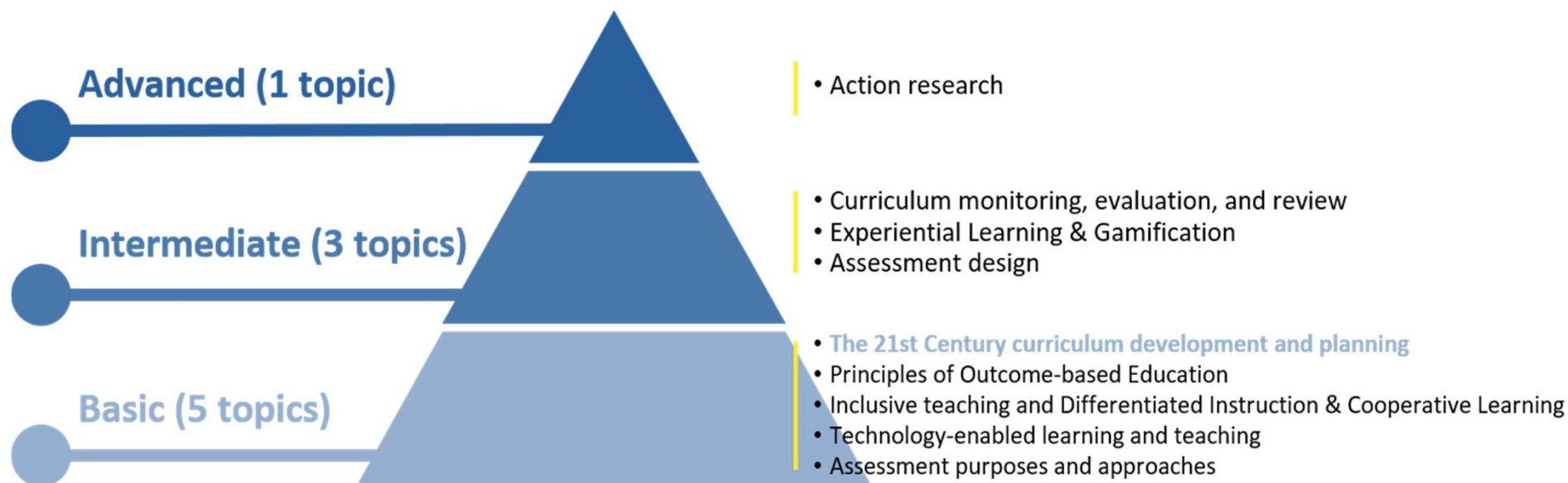


Scaling Up the Professional Development of University Teachers in Cambodia

By Centre of Excellence in Higher Education Teaching and Learning Innovations



Online Resources for Graduate Certificate in Teaching and Learning in Higher Education

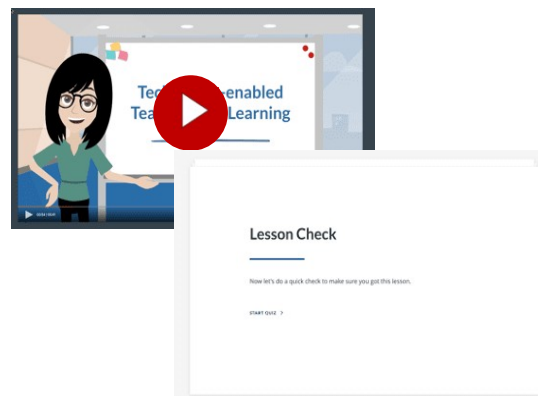


Online Resources for Graduate Certificate in Teaching and Learning in Higher Education

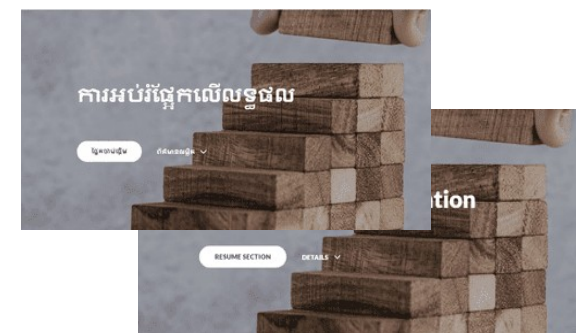
Mobile-friendly resources
Learn anytime anywhere



Various types of learning resources



Customisation:
English and Khmer



<https://moodle.eduhk.hk/enrol/index.php?id=2386>

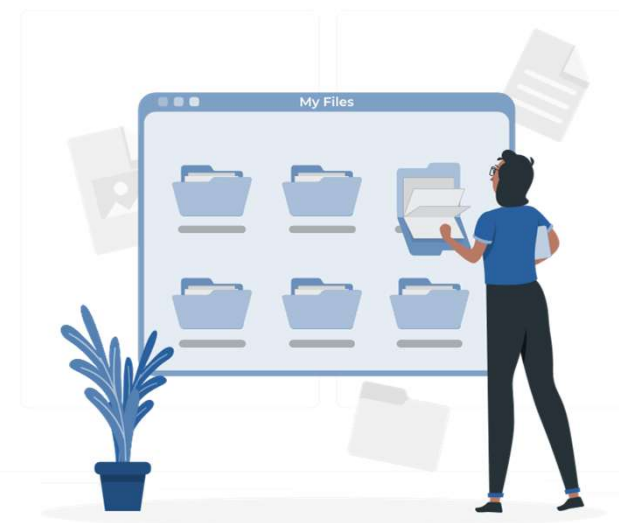
Professional Development Workshop Suggested Activities (for Master Teachers)

Khmer version

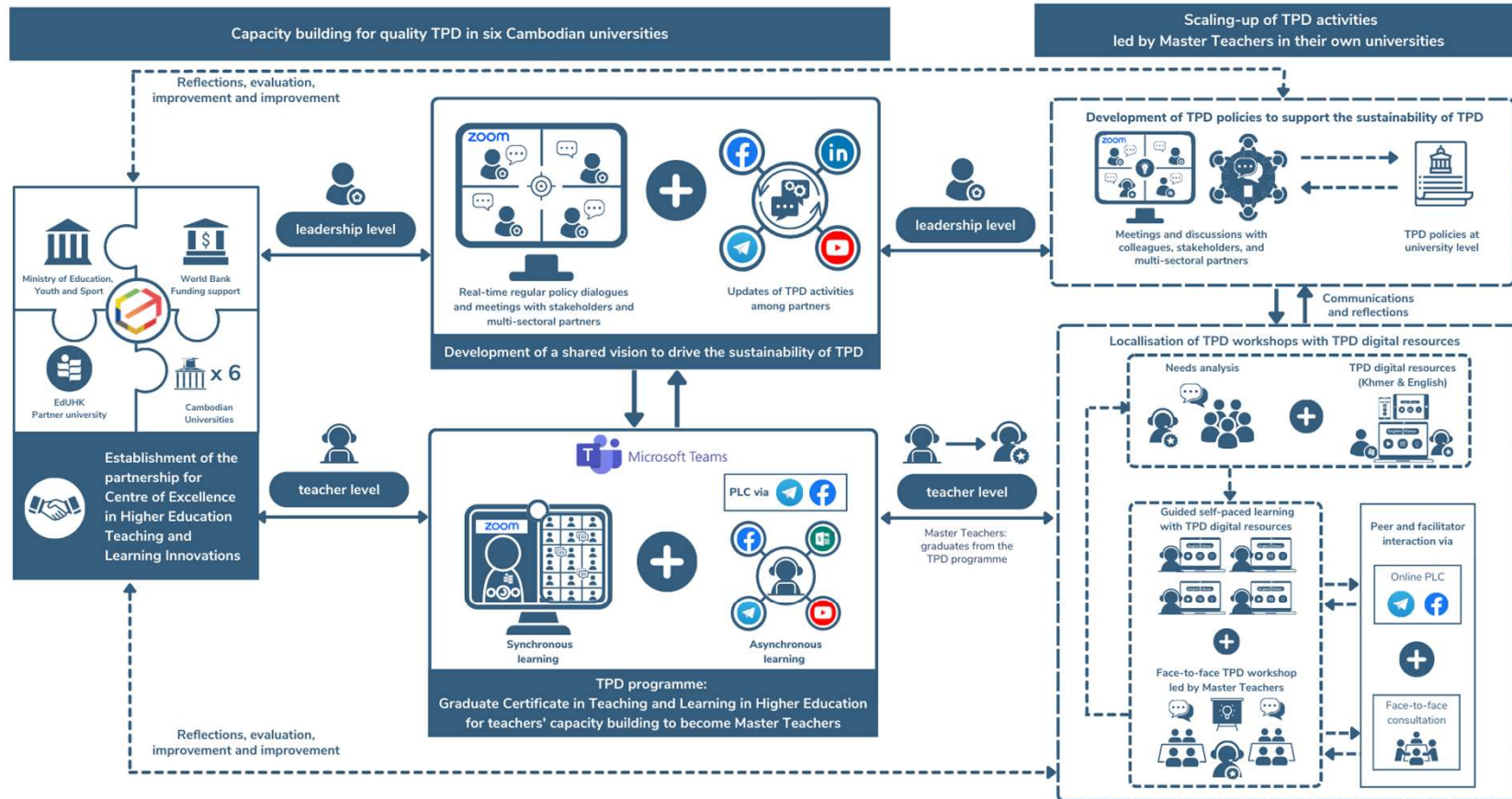
-  101 ការធ្វើផែនការ និងអភិវឌ្ឍកម្មវិធីសិក្សាសកលទី១១
-  102 ការអប់រំផ្អែកលើលទ្ធផល
-  201 ប្រធានបទទី១៖ ការបង្រៀនប្រកបដោយបរិយាប័ន្ន ការបង្កើតបង្រៀនបែបចម្រុះ និងការរៀនបែបសហការ
-  202 ការរៀន និងបង្រៀន ដោយប្រើប្រាស់បច្ចេកវិទ្យា

English version

-  101 The 21st Century Curriculum Development and Planning
-  102 Outcome-based Education
-  201 Inclusive Teaching, Differentiate Instruction and Cooperative Learning
-  202 Technology-Enabled Learning and Teaching



CENTRE OF EXCELLENCE TPD MODEL



A Framework For Strengthening Teacher Professional Development Systems with ICT



Sources:

- Global Partnership for Education Knowledge and Innovation Exchange (GPE KIX)'s multi-site empirical TPD@Scale research project, *"Adapting and Scaling Teacher Professional Development Approaches in Ghana, Honduras, and Uzbekistan."*
- Wolfenden, F. (2022). *TPD@Scale: Designing Teacher Professional Development with ICTs to Support System-Wide Improvement in Teaching.*



Six pillars



Policies

1. Policies for TPD **contribute to national education goals** and align with wider education policies at each level of the system.
2. Policies recognise the **diversity of the teacher workforce** and the range of contexts in which teachers work.
3. Policies require **allocating resources** to support teacher participation in different forms of TPD as appropriate to their context and needs.
4. ICT-mediated TPD is regularly monitored and **subject to continuous improvement**.



ICT

1. ICT tools are harnessed to **mediate TPD in ways which are contextually appropriate** and responsive to teachers' professional learning needs.
2. Teachers and teacher educators have **continuous opportunities** to develop their digital skills.
3. TPD information management systems utilise ICT to **record teachers' TPD experiences and professional growth** and link this to career progression.



Supporting Capacities

1. **Appropriate roles at different system levels** are in place to provide virtual and in-person support for teachers in ICT-mediated TPD programs.
2. There is **regular, high-quality professional development** for staff supporting ICT-mediated TPD, modelling expectations for teachers.
3. **Sufficient resources** are allocated to maintain and update ICT hardware and software throughout the teacher education system.

Six pillars



Partnership

1. Public agencies responsible for TPD, school management, and the teaching workforce **collaborate to ensure a coordinated and comprehensive** TPD system.
2. Opportunities for **regular dialogue with teachers** are securely in place.
3. **Providers of ICT-mediated TPD coordinate with institutions** responsible for initial teacher education.
4. **All partners in ICT-mediated TPD understand and support equity** in TPD and practice inclusion in their partnerships.



Learning Design

1. Designs of ICT-mediated TPD centre on **practical, relevant, and intellectually stimulating subject-based activities** that teachers can undertake in classrooms, complemented by support from peers and experts.
2. The design of ICT-mediated TPD is **flexible to enable multiple adaptations** for different groups of teachers and contexts.
3. Tools for teachers to **self-diagnose their professional learning needs and to reflexively assess** their professional growth are embedded in ICT-mediated TPD.



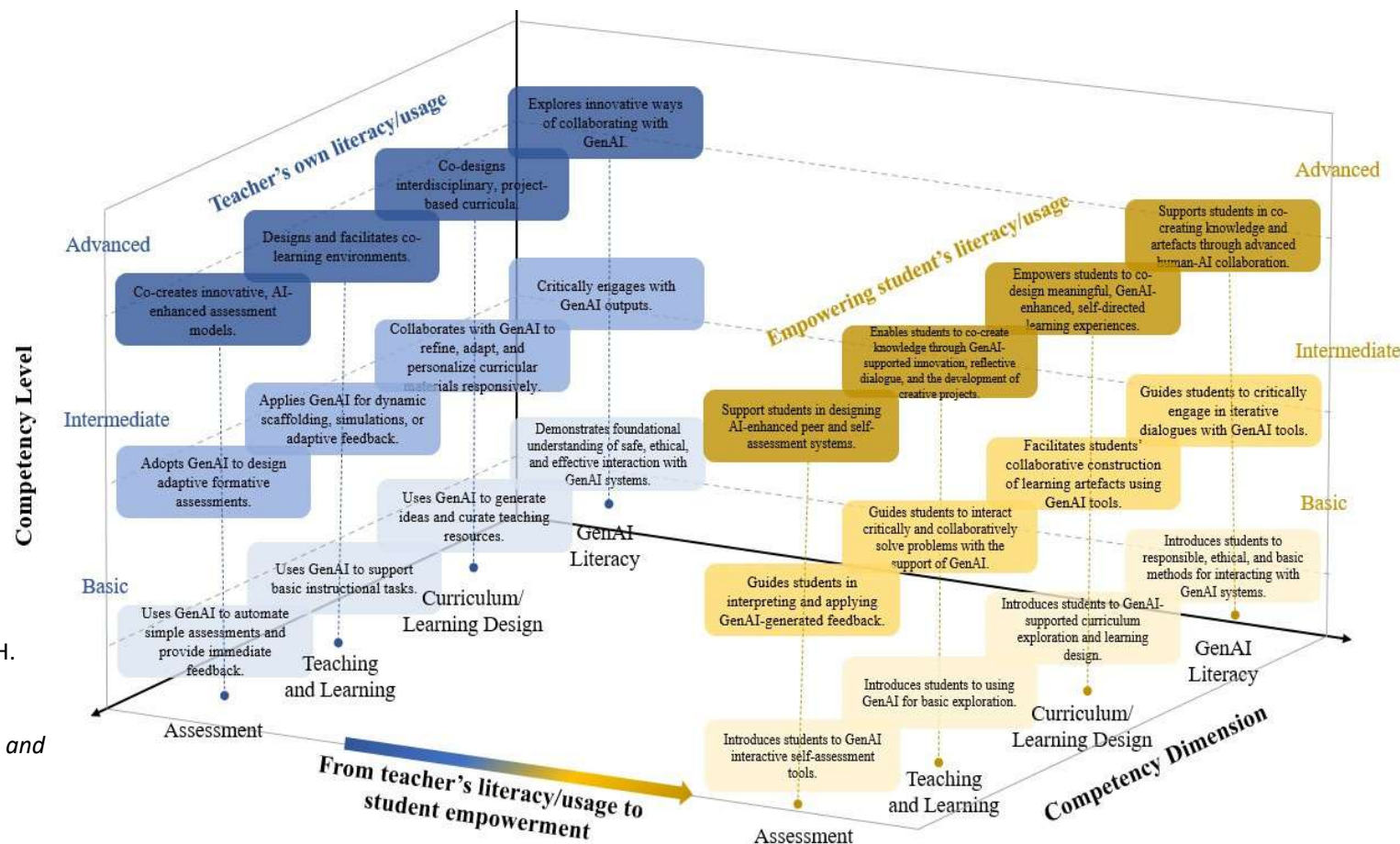
Communication Channels

1. The value of TPD, including ICT-mediated TPD, to teachers and their learners is strongly reinforced **in all messaging across the education system**.
2. **Multiple channels are in place to inform** teachers and other actors at different levels of the education system about diverse TPD opportunities.
3. **Systems are in place to enable teachers and those supporting teachers to give feedback** on TPD needs and experiences and contribute case studies, localised resources, and new materials to TPD repositories.

GenAI-Responsive Competency Framework for University Teachers



Sun, D., Ba, S., Cha, Y., Yu, J., Chiang, F.-K., Dai, H. M., & Lim, C.-P. (2026). Empowering university teachers in higher education: A generative AI-responsive competency framework. *Computers and Education: Artificial Intelligence*, 10, 100542. <https://doi.org/10.1016/j.caeai.2026.100542>



GenAI-Responsive Competency Framework for University Teachers

Dimension 1: GenAI Literacy

Teachers' Own Literacy/Usage

Level	Conceptualisation	Example Measures
Basic	Demonstrates foundational understanding of safe, ethical, and effective interaction with GenAI systems.	<i>'I can use GenAI to generate content that I need, such as a picture based on a photo.'</i>
Intermediate	Critically engages with GenAI outputs, identifying potential issues, biases, and opportunities for improvement.	<i>'When using GenAI-generated outputs, I can identify if the content shows social biases. For example, if the content portrays certain genders or cultures in a negative light.'</i>
Advanced	Explores innovative ways of collaborating with GenAI, reflecting on its evolving role as a cognitive partner.	<i>'I can co-create high-order educational materials (e.g., long paragraphs) with GenAI, where I provide the overall theme and direction, with GenAI generating the details.'</i>

GenAI-Responsive Competency Framework for University Teachers

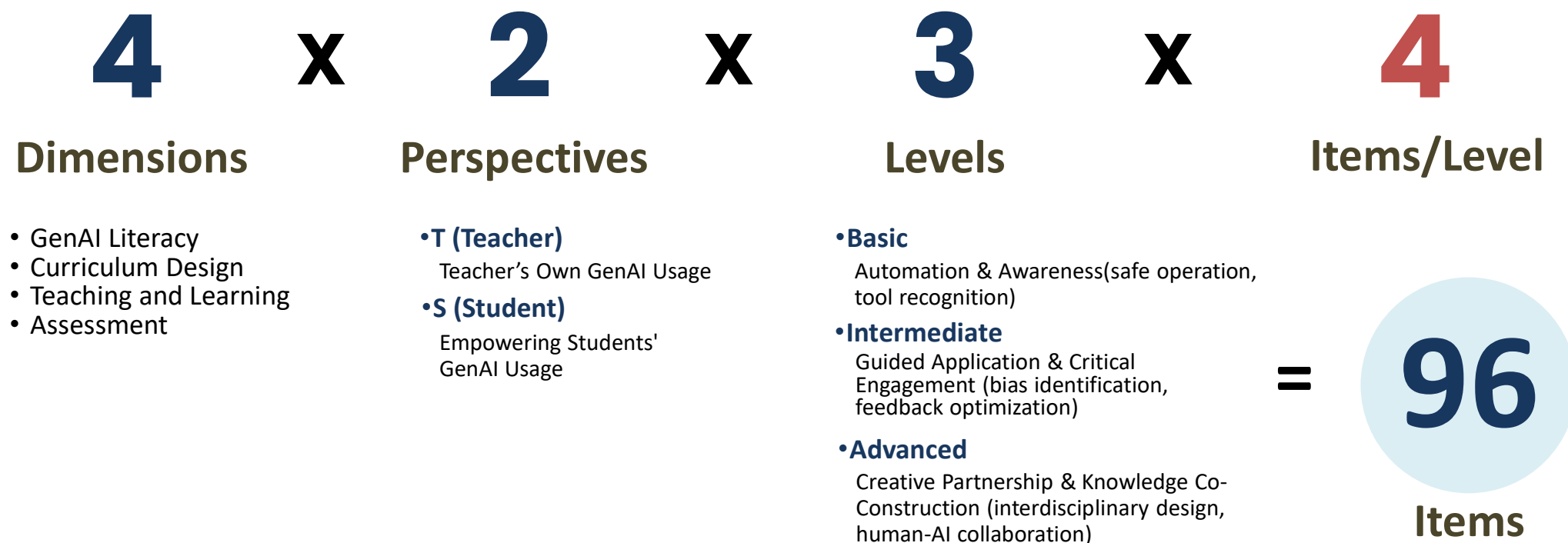
Dimension 1: GenAI Literacy

Empowering Students' Literacy/Usage

Level	Conceptualisation	Example Measures
Basic	Introduces students to responsible, ethical, and basic methods for interacting with GenAI systems.	<i>'I can teach students that using GenAI-generated outputs (e.g., texts, codes, programs, images, artworks) without proper citation is a form of plagiarism.'</i>
Intermediate	Guides students to critically engage in iterative dialogues with GenAI tools.	<i>'I can prompt students checking if the GenAI-generated outputs they use is relevant to their actual learning needs.'</i>
Advanced	Supports students in co-creating knowledge and artefacts through advanced human-AI collaboration.	<i>'I can encourage students to take the lead in co-creating products with GenAI, where I provide technical and conceptual support.'</i>

GenAI-Responsive Competency Framework for University Teachers

Developing a Self-assessment Tool:



GenAI-Responsive Competency Framework for University Teachers

A Questionnaire designed to **measure university teachers' competencies** in utilising GenAI in higher education settings.

- Format: **Matrix**
- **36** questions in total
- Takes about **10min**

Please select your level of agreement with the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I can use GenAI to generate content that I need via simple prompts.	☐	☐	☐	☐	☐
2. I can teach students that using GenAI-generated outputs (e.g., texts, codes, programs, images, artworks) without proper citation is a form of plagiarism.	☐	☐	☐	☐	☐
3. After receiving GenAI-generated outputs, I can review and modify them to better fit my needs (e.g., adding local examples).	☐	☐	☐	☐	☐

12:29

Please select your level of agreement with the following statements.

1. I can use GenAI to generate content that I need via simple prompts.

Neutral

☐ Strongly Disagree

☐ Disagree

☒ Neutral

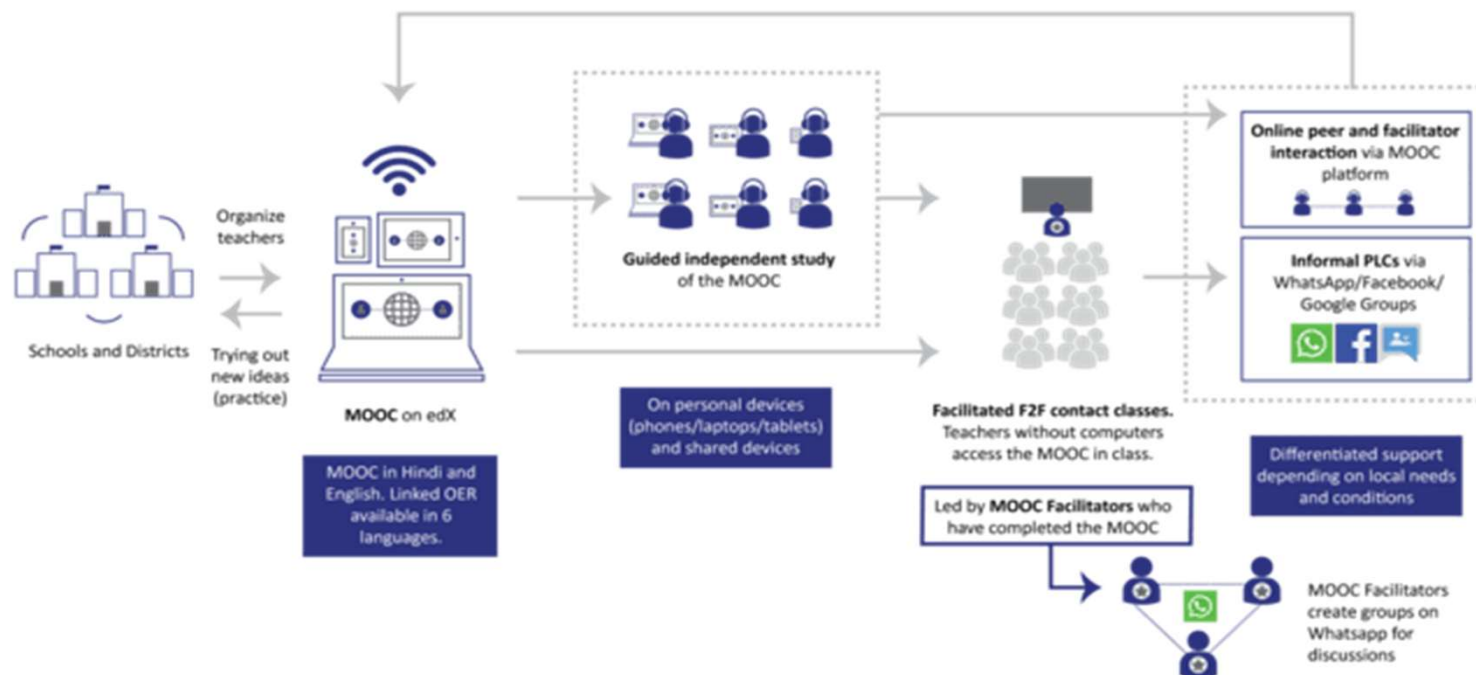
☐ Agree

☐ Strongly Agree

2. I can teach students that

Key Insight 1: Design for scale, localise for inclusion

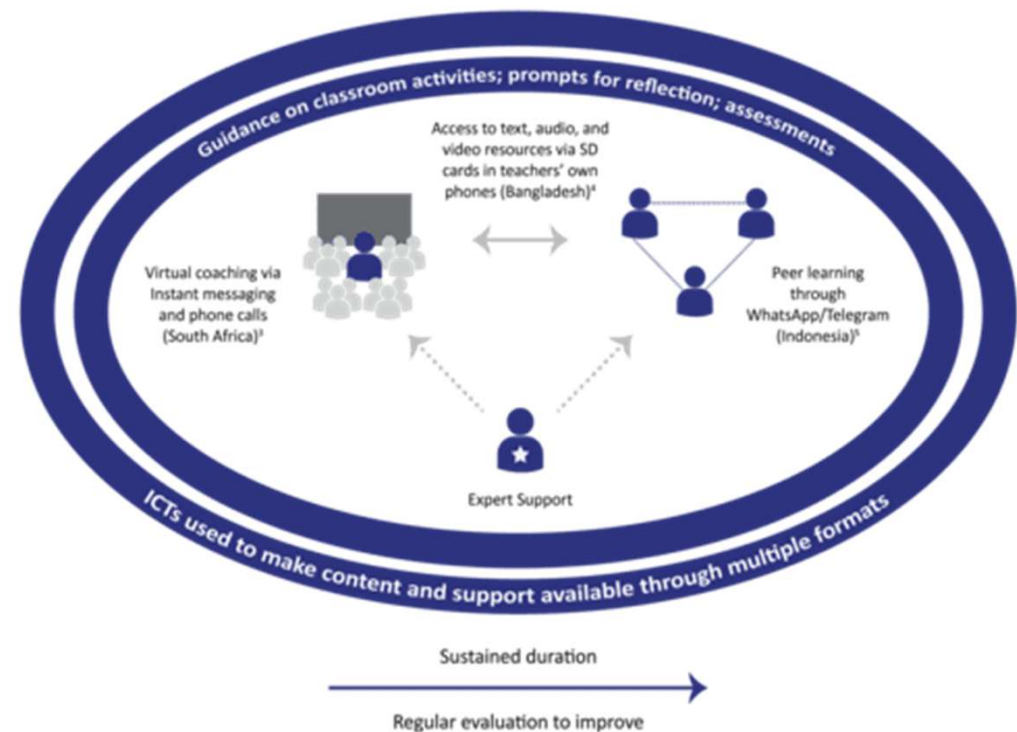
Issues of inclusion need to be understood and responded to at local levels



Key Insight 2:

Match technology choice with professional learning needs

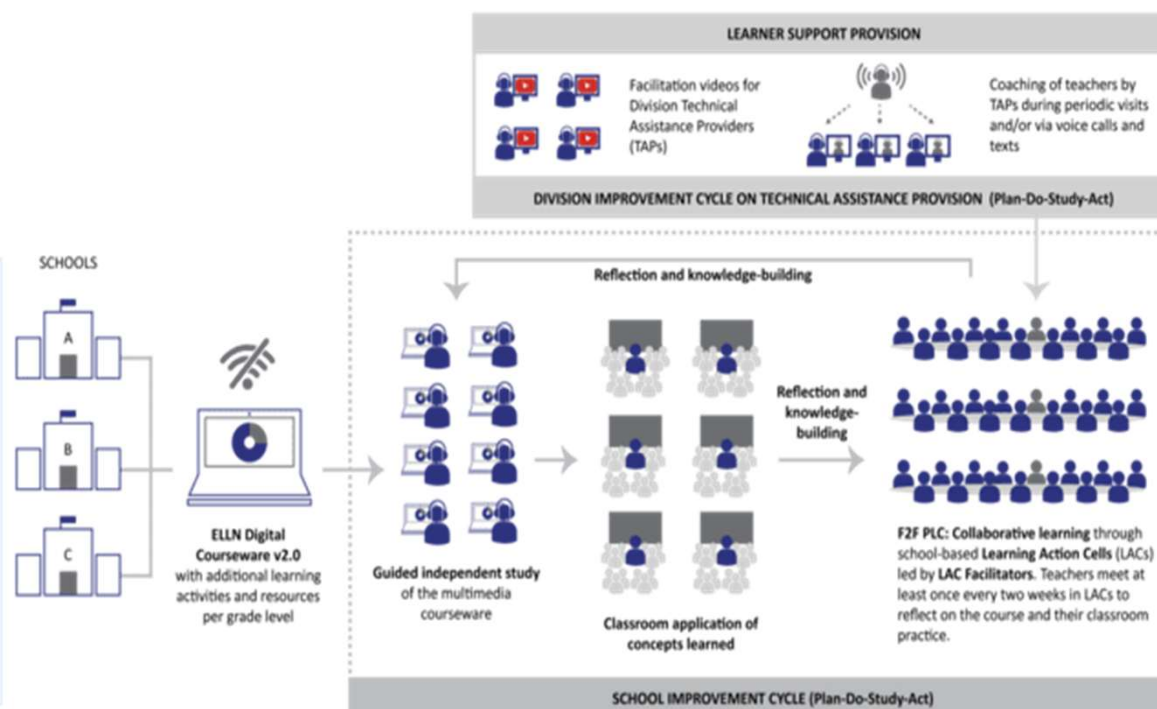
Digital technologies enable efficiencies of scale and personalization but need to be selected carefully, paying attention to members of the education workforce's access, skills and habits.



Key Insight 3:

Act, Evaluate, Improve

Sustainability of the TPD@Scale structure within the system is through continuous adaptation and improvement to move towards equity while striking the proper balance between quality and efficiency.



Implications of these insights for TPD@scale...



- Design at scale to integrate with existing and nascent structures but allow flexibility to adapt at local levels for full inclusion
- Use ICTs to enhance professional learning activities in ways which respond to teachers' current experiences, context and professional learning needs
- Work closely with stakeholders, multi-sectoral partners and communities to develop a shared vision and capacity to enact continuous cycles of improvement at multiple levels to drive sustainability

THANK YOU



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