# Technology Enabled Continuous Professional Development

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A focused journey from policy to practice — equipping teachers to integrate technology with purpose, pedagogy, and lasting impact.

**Technology for Continuous Professional Development**

**Continuous Professional Development for Technology Integration**

## Policy Context

# The Policy Promise: Technology as an Equity and Quality Enabler

**NEP 2020** positions technology at the heart of educational transformation.

### Interactive & Inclusive

Technology should make learning more interactive, inclusive, and learner-centered.

### Continuous Teacher Development

Digital support structures must sustain ongoing professional growth for every educator.

### NDEAR Framework

The National Digital Education Architecture provides systems-level direction for scaling TEL nationwide.

# Why CPD Keeps Failing in the Real World

- **One-shot training** – No follow-up or reinforcement
- **Too much theory** – Limited classroom application
- **Low relevance** – Not linked to real teacher needs
- **No ongoing support** – Limited mentoring and feedback
- **Completion over impact** – Certificates replace evidence of change
- **One-size-fits-all** – Different needs are overlooked
- **Low teacher ownership** – Teachers remain passive participants
- **Technology ≠ pedagogy** – Tools used without clear purpose
- **Time & workload constraints** – CPD becomes an added burden
- **No impact evidence** – Classroom change is rarely tracked

# Why CPD needs Change?

- Digital technologies change faster than conventional training cycles.
- Teachers need just-in-time learning for immediate classroom problems.
- Professional learning is stronger when it is contextual, collaborative and practice-based.
- Evidence of learning should include application, reflection and classroom artefacts—not only attendance.
- Technology can reduce barriers of time, geography and access to expertise.

# What change required in CPD?

## From training event to learning ecosystem

### 1. Access

Micro-courses
Videos
Guides
Webinars

### 2. Apply

Lesson design
Digital resource
Classroom trial

### 3. Reflect

Self-assessment
Student evidence
Peer feedback

### 4. Share

PLC
Discussion forum
Resource repository

### 5. Improve

Feedback loop
Next learning goal
Evidence of growth

## Continuous Improvement

# From CPD to Continuous Improvement:

### Job-Embedded PD

Coaching, peer mentoring, and hands-on experimentation replace one-off workshops as the default model.

### Competence-Aligned Activities

Align activities to a recognized framework so teachers can self-assess and target specific gaps.

### Ongoing Digital Collaboration

Use digital tools to enable continuous development and peer connection — not just during training events.

### Safety & Ethics

Digital safety and ethics are core competencies, not optional add-ons to professional practice.

# CPD Learning Design

1. ICAP (Interactive, Constructive, Active, and Passive) Instructional Design
2. Micro Learning
3. Professional Learning Communities (PLCs) + Classroom Trials
4. Design for Perception & Application
5. AI-assisted professional learning
6. Learning Analytics

CPD Approaches

# Three Technology-Integration CPD Approaches

Choose the right approach based on your context, resources, and sustainability goals.

### Action Research

Individualized projects tailored to teacher needs.
**Time and resource intensive.**

### Project-Based

One instructional enhancement project per identified need.
**Sustainability challenges when skills lag.**

### Direct Instruction

Observation, feedback and follow-up through digital tools.
**More tangible outcomes, but still time-intensive**.

### Online courses / MOOCs

structured learning with assessment and certification.
**Time, resource intensive, tangible & sustainable**

# What makes technology-enabled CPD effective?

- Relevance — linked to an authentic classroom need.
- Continuity — learning is distributed over time rather than concentrated in one event.
- Practice — teachers apply ideas in their own classrooms.
- Interaction — peers, mentors and experts are part of the learning process.
- Evidence — teachers examine changes in practice and learner outcomes.
- Personalisation — pathways adapt to teacher role, stage, subject and prior knowledge.
- Inclusion — low-bandwidth, multilingual and accessible options are available.

# CPD : Path to Keep in Mind

**Step 1 • Choose a need**

Example:

“Teachers need better strategies for formative assessment in blended classrooms.”

**Step 2 • Build the loop**

Choose:

- microlearning
- application task
- peer interaction
- reflection/ evidence

**Step 3 • Define evidence**

What will show learning?

Lesson artefact?
Student work?
Observation?
Reflection?

# A Practical CPD Model

## Week 1
## Learn

20–30 min/week
Identify one practice to improve.

## Week 2
## Apply

Try the practice twice
Collect simple evidence.

## Week 3
## Collaborate

Peer feedback
Compare student evidence.

## Week 4
## Reflect & share

Document change
Set next learning goal.

# From participation to evidence of professional growth

Level 1 — Participation: course completed / webinar attended.

Level 2 — Learning: assessment, quiz, discussion or self-check.

Level 3 — Application: new practice demonstrated in a real teaching context.

Level 4 — Reflection: teacher analyses evidence and identifies improvement.

Level 5 — Contribution: teacher shares an exemplar, mentors peers or contributes to a professional community.

# Common pitfalls—and better alternatives

| Pitfall | Better approach |
| --- | --- |
| “More webinars = more professional development.” | Fewer, relevant learning experiences. |
| “Completion rate = impact.” | Track application and evidence. |
| “One platform fits every teacher.” | Offer multiple pathways and accessibility options. |
| “AI-generated content is automatically correct.” | Require verification, reflection and professional judgement. |

# Examples: Technology Enabled CPD

## Example 1: NISHTHA on DIKSHA

Scenario: A teacher completes an online module on integrating ICT in teaching-learning and assessment.

Instead of stopping at certification, the teacher chooses one classroom practice to test—for example, using a digital formative assessment.

Evidence: lesson plan + student response data + short reflection.

Peer discussion: What worked? What failed? What will be modified?

Next step: a micro-learning module or peer demonstration based on the identified need.

**Key principle**

Certification is a milestone—not the endpoint.

## Example 2

# A teacher PLC using WhatsApp/Teams/Google Workspace

5 teachers agree on one common problem: students struggle to interpret graphs.

Monday: share a 5-minute resource or strategy.

Wednesday: each teacher tries the strategy in class.

Friday: share one student-work sample and one reflection.

Next week: adapt the strategy and compare evidence.

### Why technology helps

Low-cost communication
+ shared resources
+ rapid peer feedback
+ visible evidence of practice

# AI as a CPD partner—not an authority

**Example 3**

Teacher uploads a lesson objective and asks AI for three differentiated activity options.

Teacher checks the suggestions against curriculum goals, learner context and accuracy.

Teacher asks AI to act as a critical reviewer: “What assumptions or accessibility issues are present?”

Teacher revises the lesson and records what changed and why.

Peer review remains essential for professional judgement.

**Rule**

AI can accelerate thinking; it should not replace teacher judgement.

# Digital Coaching Cycle

**Example 4**

### Before

Teacher identifies one target practice.

### During

Classroom observation / video / student evidence.

### After

Coach gives focused feedback.

### Repeat

Teacher retries and compares evidence.

# Technology Enabled CPD Initiatives

- Webinar - https://ciet.ncert.gov.in/webinar
- Online Courses - https://ciet.ncert.gov.in/onlinecourses
- Online Training - https://ciet.ncert.gov.in/w&t