

WHY CONTINUOUS PROFESSIONAL DEVELOPMENT MATTERS FOR SCIENCE TEACHERS IN THE DIGITAL AGE

SPEAKER



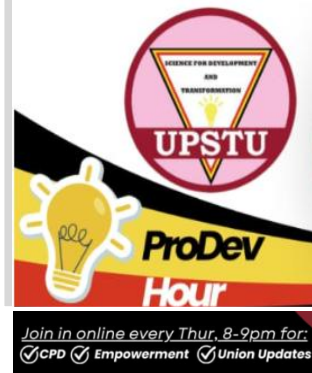
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This session explores;

- » Understanding CPD
- » Why CPD is critical in the Digital Age
- » Key Areas for Teacher Development
- » Practical Strategies for Continuous Growth
- » Overcoming Barriers
- » The Teacher of the Future
- » Q&A and Next Steps



The Science Teacher We Were vs The Science Teacher Needed Today

» Traditional Science Teacher

- ✓ Delivers content
- ✓ Uses textbooks
- ✓ Demonstrates experiments
- ✓ Prepares learners for exams

» Modern Science Teacher

- ✓ Facilitates inquiry
- ✓ Uses technology strategically
- ✓ Creates innovators
- ✓ Connects science to real-world problems



SCIENCE FOR DEVELOPMENT
AND
TRANSFORMATION

UPSTU

**ProDev
Hour**

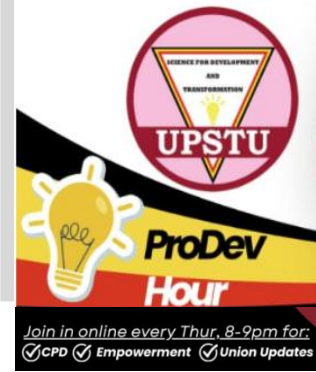
- » **Key message:**

STUDY TEAMWORK POTENTIAL
PROGRESS ACHIEVEMENT  **SKILLS** 
GROWTH
 TRAINING
 IMPROVEMENT  **SUCCESS**
 COMPANY ACHIEVEMENT **ASPIRATION**  **PROFESSIONAL** IMPROVEMENT

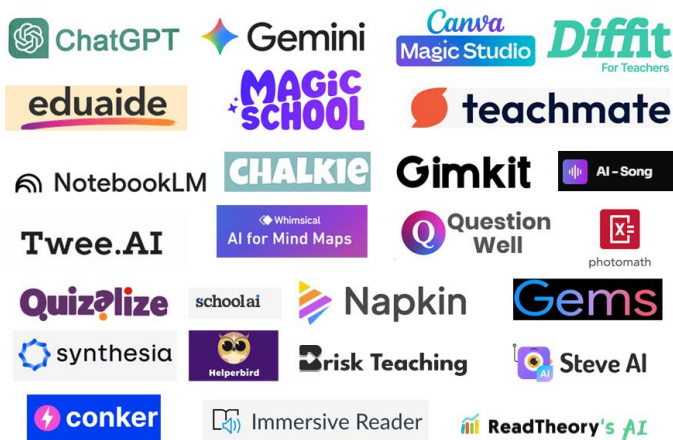
Why CPD Matters – Improves Science Teaching Quality

» CPD helps teachers:

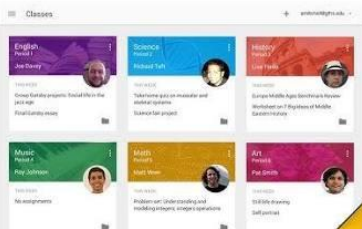
- ✓ Design better lessons
- ✓ Use inquiry-based learning
- ✓ Improve practical activities
- ✓ Give meaningful feedback



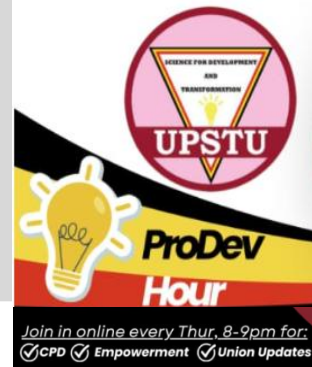
Examples of Essential Tools



How To Use Google Classroom



- » Learning Management Systems (Google Classroom, Moodle, etc.)
- » AI-powered tools
- » Multimedia creation (Canva, CapCut, OBS)
- » Online collaboration platforms
- » Digital assessment tools



Why CPD Matters – Learners Have Changed

- Digital natives
- Access information instantly via smartphones & social media
- Expect interactive, personalized, relevant learning
- Teachers must bridge traditional education with digital reality



Why CPD Matters – Improving Teaching Quality

- Better lesson planning & delivery
- Learner-centered approaches
- Improved assessment & feedback
- Addressing diverse learner needs
- **Result:** Significantly better student outcomes



Key Areas for Continuous Development (C

Digital Literacy Skills

- Digital Skills
- Assessment
- Information literacy

Digital Content Creation

- » Videos,
- » presentations,
- » Infographics
- » Interactive materials



Key Areas for Continuous Development (1/2)

Technology-Enhanced Pedagogy

- » Blended learning
- » Flipped classroom
- » Project & inquiry-based learning

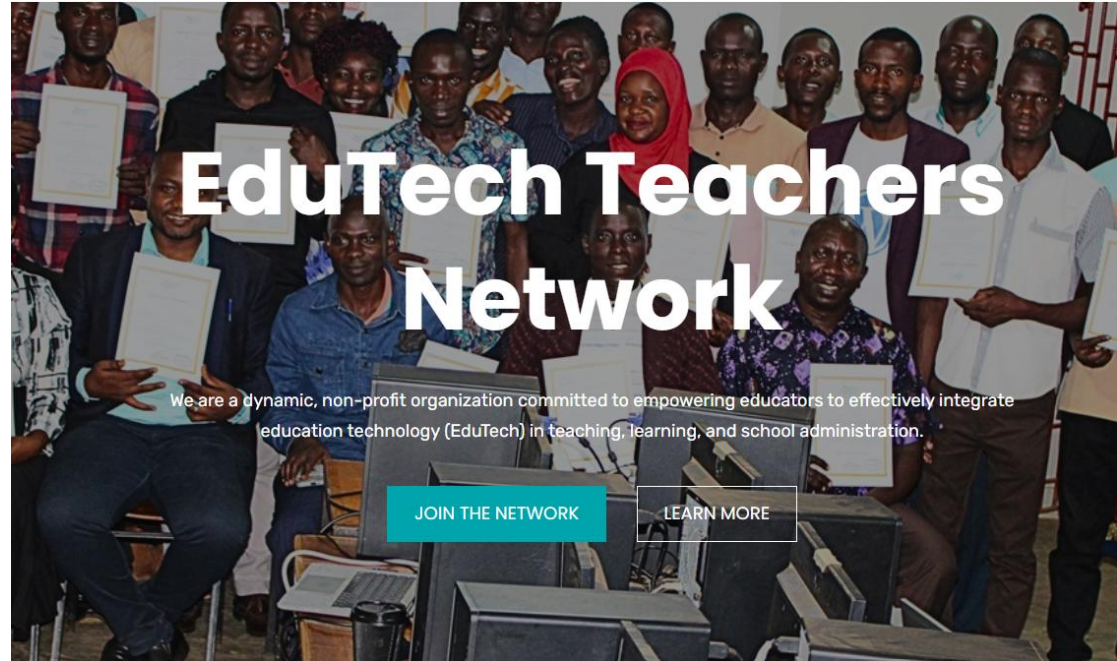
Modern Assessment Practices

- » Online quizzes, analytics, digital portfolios



Practical Strategy 1 – Professional Learning Communities

- » Collaborate with colleagues
- » Subject associations
- » Online educator communities
- » School-based PLCs



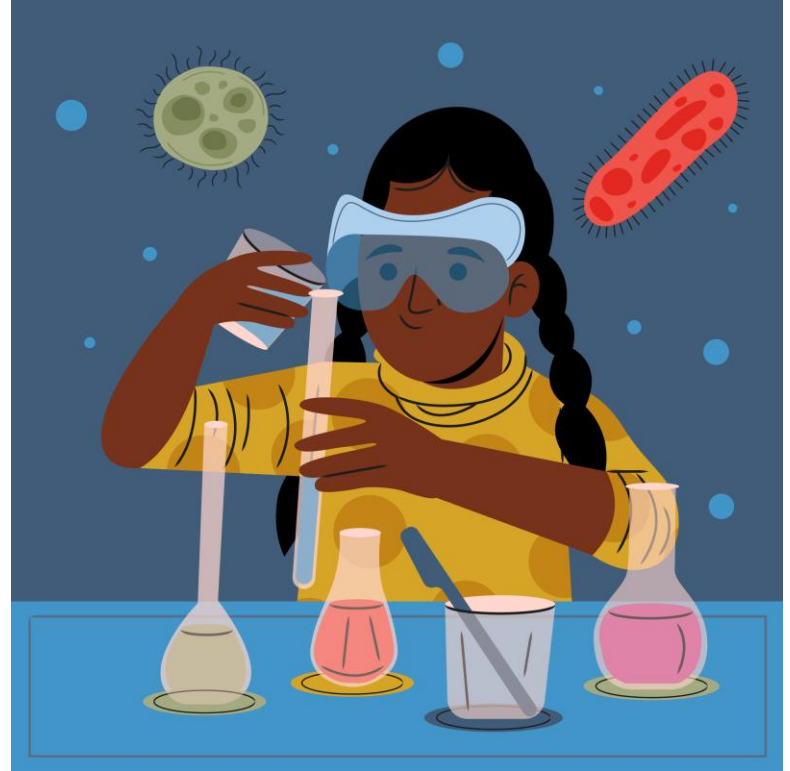
Practical Strategy 2 – Online Learning

- » Webinars & workshops
- » MOOCs (Coursera, edX, etc.)
- » Certification programs
- » Micro-credentials
- » **Advantage:** Learn anytime, anywhere



Practical Strategy 3 – Experiment & Reflect

- » Try new tools and approaches
 - » Observe learner responses
 - » Reflect on outcomes
 - » Adjust and improve
- » **Tip:** Keep a teaching reflection journal



Practical Strategy 4 – Build Your Personal Learning Network (PLN)

- » LinkedIn, Twitter/X, educational forums
- » Follow thought leaders
- » Join communities like Edutech Teachers Network (ETN)
- » Attend virtual conferences



Practical Strategy 5 – Cultivate a Growth Mindset

- » Skills can be developed
- » Mistakes = learning opportunities
- » Change = innovation opportunity
- » **Quote:** “The most successful educators are those willing to continuously learn.”



Overcoming Barriers to CPD

Common challenges:

- » Limited time
- » Lack of resources / funding
- » Digital skill gaps
- » Resistance to change

Solutions:

- » Start small (one tool per week)
- » Use free resources
- » Collaborate and share the load
- » Consistency beats intensity

Small Steps, Big Impact

- » Daily: 15 minutes of learning
- » Weekly: One webinar or community interaction
- » Monthly: Implement & reflect on one new practice



The Teacher of the Future

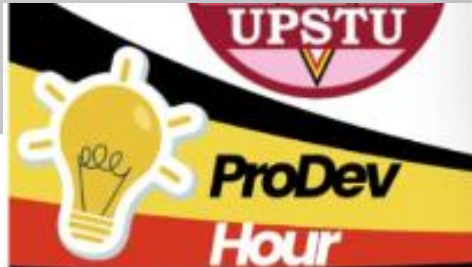
- » Lifelong learner
- » Adaptive innovator
- » Digital strategist
- » Collaborative professional
- » **Core Message:**
Technology will change,
but great teachers
remain central



The Teacher of the Future

- » Commit to one area of growth this term
- » Join Edutech Teachers Network activities
- » Share your CPD journey using **#EdTechExchange**
- » Connect with me:
tichadeniskruger.com





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