



# Professional Development of Prospective Teachers in the Digital Age

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## Abstract

Professional development of prospective teachers is a continuous process which begins from teacher education colleges that teachers perceive and implement during their educational pursuits. At any stage of career stage the importance of teacher's professional development rooted from educational colleges because they are the most important change agents to improve their instructional skills. Professional development (PD) for teachers is on-going learning that helps prospective teachers to improve instructional skills, stay current with research, and trend which helps for students' success. Effective Professional development is long lasting, practical, and aligned with future classroom needs. Providing professional development opportunities to prospective teachers empower their teaching careers and it can help to increase confidence, smart engagement, and ensuring workforce has a sharp and fine skill set that's ready for future education. This paper discusses teacher professional development in the digital era in terms of getting practice from formal education and getting training in these five strategies will change teachers as tech savvy to have technology progress in future and helps to reshape digital curriculum design in teacher education.

**Keywords:** professional development, prospective teachers, digital age.

## Core Areas of Professional Development in the Digital Age

### 1. Instructional Strategies

**Differentiated Instruction:** To meet the diverse needs of students, use varied reading levels (leveled texts, audio versions, video descriptions from various educational websites like blogs) in the form of mini-lessons for small groups to break into small concepts for lower achievers and providing enrichment tasks for advanced learners. We have to assign tiered activities for same concept with different complexity according to their level to be readily available in their institutional Learning Management System itself.

### Project-based Learning

Forming flexible grouping in pairs or in small groups or some independent works are to be shared in digital platforms to share their knowledge, idea and creativity using project management softwares.

- **Inquiry-based learning:** For the graduates of science community the institution should set learning stations and choice boards in online. By engaging all the prospective teachers in online laboratories to teach science and mathematics providing remote, accessible, and safe learning opportunities like simulations, games and augmented reality and virtual reality enabled experiments.
- **Formative assessment techniques:**
- **Culturally responsive teaching**



## 2. Curriculum & Content Knowledge

- Deepening subject-area expertise can be had from integrated courses like B.Sc,B.Ed/ B.A.B.Ed/ B.Com B.Ed.
- Aligning curriculum with global standards: Balancing our teacher education curriculum with international standards considering local socio-economic needs, cultural differences, and digital resource constraints.
- *The key to internationalising curricula is intentionalising what is already present in our learning environments*

## 3. Technology Integration

- Using the institutional LMS platforms or Google Classroom or Microsoft Teams
- AI tools in education: In the global scenario of Generative Artificial Intelligence, prospective teachers can easily get some instructional strategies and innovative methods of assessment.
- Digital citizenship & online safety: Prospective teachers should be given digital citizenship training who will become future digital immigrants so as to get their job opportunities globally.
- Blended and flipped learning models: In this technological era of education, prospective teachers should get training in blended learning models. As far as the flipped learning method is considered, it can be created as some digital modules to access at any time as personalized learning technique.

## 4. Classroom Management & Student Support

- Machine learning: To automate some tasks to students periodically, machine learning plays vital role in personalized instruction. And to find out the struggling students some ai tools like Khanmigo is helpful. So getting practice in machine learning for prospective teachers is very essential.
- Student Support: Canva for content creation, AI assistants like Techmate and Brisk for lesson planning and feedback.
- Prospective teachers should have good training in platforms like Moodle which connects

students, teachers and parents in a single platform.

- Getting practice in Quizizz, Kahoot and Google Forms are highly helpful in real-time, data-driven insights for thorough understanding of concepts. Gamified learning is possible in Baamboozle with a large library of user-generated games and DIKSHA portal is having enormous digital resources for students, teachers and parents for knowledge sharing.
- ## 5. Leadership & Career Growth
- Instructional coaching : creating effective professional communities through social media like linked in , twitter and face book.
  - Go digital: prospective teachers should develop their own google docs, spreadsheets, google slides, google forms and more on google applications to mentoring their students in digital environment.
  - Digital leadership: to establish prospective teachers' digital competence, they should design their own blogs which will help their students ultimately. Designing e-portfolios will be helpful in reflecting their skills files videos, documents and artifacts
  - **TED talks HTML coding** are becoming very common as universal language as excellent discussion starters.
  - **National Board Certification** gives professional teaching standards that opens professional doors for teachers by teachers. Board certified teachers become global teachers in future. Better learning for students...
  - **Professional certificates** from trusted providers like Micorsoft, Zendesk, lambda Test and Blue prism help in preparing, assessing and showcasing skills in one platform.

## Conclusion

As new tools and new technology keep emerging, learning and adapting is essential. The good news is: It's fun, and even 20 minutes a day will take the prospective teachers a long way. Now a days schools are intended to follow the programme IBCP ie. International Baccalaureate Career-related



Programme which is an emerging trend so as to engage children in the field of AI, Robotics, Data Science, machine Learning and Automation. So, professional development of prospective teachers is to be modified in teacher education by integrating technology with pedagogy is the need of the hour. Teacher education must be modified the concept of digital literacy as professional development to meet the demands of digital era by bringing innovation in Education.

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