

# 21<sup>st</sup> Century Online Teachers: Through the Lenses of Distance Learners

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**Abstract:** *The rapid growth of online and distance education has emphasized the need for teachers to acquire 21st-century skills. While most research focuses on teacher training and institutional readiness, limited attention has been given to learners' perspectives on what competencies teachers require in the digital age. This study explores the perceptions of distance learners regarding the essential skills and competencies that effective 21st-century teachers must possess. A qualitative approach was employed, using focus group discussions with 53 distance learners enrolled in teacher education programmes. Participants were purposively selected to represent diverse academic and professional backgrounds. Data were transcribed and analyzed thematically, with emerging codes consolidated into key categories of teacher competencies. Learners emphasised digital literacy, adaptability, critical thinking, collaboration, and continuous professional development as non-negotiable teacher skills. They also highlighted the importance of inquiry-based pedagogy, learner-centred approaches, and the ability to create engaging online environments. The findings reinforce the relevance of NEP 2020, particularly its call for the formulation of National Professional Standards for Teachers (NPST).*

**Keywords:** 21st-century skills, teacher competencies, distance learners, ICT integration, NEP 2020

## 1. Introduction

### Challenges and Shifts in Teacher Competencies

Over the past two decades, Indian education has struggled to mainstream innovative practices. Policy learning from successful experiments has often been neglected. The recommendation to adopt hybrid modes of teaching, along with emerging technologies such as Augmented Reality (AR), Virtual Reality (VR), and Artificial Intelligence (AI), reflects a commitment to preparing students for the demands of the modern world. However, the effectiveness of these efforts depends on adequate sensitisation and training of educators. While new technologies create additional training needs, they also provide flexible avenues for professional development and global teacher networking (Jung, 2005). Recognising this, the National Education Policy (NEP, 2020) proposed the development of National Professional Standards for Teachers (NPST) to guide teacher education, evaluation, and career progression.

### Paradigm Shift: NEP Perspective

The rise of online and distance education has redefined teaching and learning. Today's students—often described as “digital natives” (Prensky, 2001)—are accustomed to instant access, interactive media, and personalised content. Their expectations extend beyond traditional respect for authority; they demand stimulating, discussion-oriented, and learner-centred environments. NEP 2020 recognises this shift by emphasising technology integration and student autonomy.

Technology now shapes nearly every aspect of education. To remain effective, teachers must align their methods with students' digital behaviours and learning preferences. Interactive approaches—such as multimedia content, educational apps, and collaborative platforms like Google Workspace or Microsoft Teams—enhance engagement and foster teamwork. Personalised learning paths, adaptive

assessments, and instant feedback further cater to diverse needs. ICT tools support independent learning by enabling students to access, extend, transform, and share knowledge creatively (Majumdar, 2006).

The COVID-19 pandemic accelerated digitisation but also exposed disparities in teachers' preparedness. Establishing standardised professional benchmarks, as proposed in NEP 2020, is therefore essential to ensure equitable, high-quality teaching across contexts.

## 2. Review of Related Literature

The National Education Policy 2020 (Ministry of Education, 2020) emphasises the cultivation of 21st-century skills among teachers, such as digital literacy, critical thinking, communication, collaboration, and creativity—skills that are particularly vital in distance education settings. Garba et al. (2015) highlight the rising importance of ICT and internet-based learning in the Asia Pacific region, asserting that technology integration is critical for enabling effective remote instruction. Their findings align with Gupta and Tiwari (2021), who argue that digital pedagogy and teacher readiness are foundational for online and distance teaching. Inquiry-based learning (IBL) has also emerged as a pedagogical model that fosters 21st-century competencies. Chu et al. (2017) demonstrate that inquiry projects, digital collaboration tools like wikis, and structured group activities enhance students' critical thinking and teamwork across diverse contexts, while also stressing the need for teacher training and assessment tools to sustain such practices. Anagün (2018) found that teachers' self-perceived proficiency in 21st-century skills directly influences their capacity to foster constructivist, student-centered classrooms—a key consideration for distance educators who must rely on such methods to engage learners. Similarly, Astuti et al. (2019) argue that pre-service training built

around the "4C" framework prepares future teachers for remote instruction by instilling essential competencies early in their professional journey. Supporting this, Valtonen et al. (2021) show that pre-service teachers' perceptions of their own 21st-century skills, particularly in ICT and collaboration, evolve with continued exposure and reflective practice. Chiappe et al. (2020) add a policy perspective, calling for systemic reforms and supportive strategies to help teachers integrate these competencies effectively, especially in underserved and distant educational settings. Hujjatusnaini et al. (2022) further contribute by demonstrating how blended project-based learning, when embedded with 21st-century skills, significantly enhances higher-order thinking in pre-service biology teachers. Together, these studies reinforce the notion that fostering 21st-century teaching in distance education requires a multifaceted approach—encompassing ICT integration, inquiry- and project-based pedagogy, reflective professional development, and forward-looking policy support. Despite these contributions, most existing literature emphasizes teacher training and implementation, whereas limited research explores learners' perspectives on what skills teachers must possess. Addressing this gap, the present study investigates how distance learners perceive the alignment of teacher competencies for 21st-century educator. Thach (1994) determined that an instructor's lack of knowledge about the variety of delivery systems available and the capabilities of each (e.g., supporting synchronous vs. asynchronous communication, transmitting visual information) will limit the breadth of instructional options available to that person. Instruction is likely to be enriched to the extent that the faculty has in-depth knowledge of a variety of delivery technologies and respective capabilities and limitations for instructional purposes. According to Schoenfeld & Perschitte (2000) faculty who teach in online environments must demonstrate these skills and competencies: familiarity with basic research on the characteristics of DE learners, their needs, and how these differ from those in f2f settings, application of basic principles of instructional design (e.g., congruence of content, activities, media, assessment; selection of appropriate media for the content), thorough knowledge of subject matter and common misconceptions, deep understanding of the necessity of learner centered environments in online settings, ability to design constructivist learning environments, practical applications of adult learning theories, self-paced instruction, and computer-mediated communication, appropriate selection of online strategies and tools that promote reflection and deep processing of content (e.g., synchronous discussion, asynchronous discussion, alternative assessment), use of strategies that promote interaction among learners, instructor, and content, fostering a sense of community among learners, adaptability and flexibility with the capabilities and limitations of the delivery media, sufficient familiarity with the delivery medium to provide basic trouble shooting, ability to multi-task, time management (e.g., respond to students in a timely manner, extensive advance preparation and planning) and Professional characteristics (e.g., motivated to teach, self-confident, articulate, good writer).

## Objectives

To find out the mandatory 21st-century skills in teachers, especially for the online mode.

## Research Design

This study adopted a qualitative research design, as the aim was to capture the lived experiences and perceptions of distance learners regarding teacher competencies in the 21st century. A focus group discussion (FGD) approach was chosen to generate rich, interactive dialogue among participants.

## Participants

A total of 53 distance learners, enrolled in teacher education programmes at [Institution name], participated in the study. Participants were purposively selected to ensure diversity in terms of teaching experience, programme of study, and exposure to online education. Prior consent was obtained, and confidentiality was maintained throughout the process.

## Data Collection

Focus group discussions were conducted in two sessions, each lasting approximately 30-40 minutes. The discussions were facilitated using a semi-structured guide covering themes such as digital literacy, pedagogy, professional growth, and learner engagement. Sessions were held in an online mode (via Google Meet), recorded with permission, and supplemented by detailed researcher notes.

## Data Analysis

The recordings were transcribed verbatim and analysed using a thematic analysis approach. Initial open coding was carried out independently by two researchers to identify recurring patterns. Codes were then grouped into broader categories, resulting in themes that represent essential 21st-century teacher competencies. To enhance credibility, findings were validated through peer debriefing and member checking with a subset of participants.

## 3. Discussion of the Result

The findings of this study affirm and extend existing scholarship on teacher competencies in the 21st century. Prior research has consistently emphasized the centrality of ICT integration and digital pedagogy in online and distance education (Garba et al., 2015; Gupta & Tiwari, 2021). Our study supports this but adds a distinctive dimension: learners themselves perceive digital literacy as a non-negotiable baseline skill for teachers. Unlike much of the literature, which foregrounds institutional readiness or teacher training, our results demonstrate that learners directly evaluate teaching effectiveness through the lens of technological competence.

The study also highlights the growing importance of inquiry-based pedagogy and learner-centered practices, echoing Chu et al. (2017) and Hujjatusnaini et al. (2022). However, learners in our focus groups emphasized that teachers often fail to stimulate critical inquiry in online classrooms. This signals a persistent gap between policy aspirations and classroom realities. Learners not only expect access to technology-enhanced resources but also demand engaging,

thought-provoking pedagogy that mirrors their digital experiences outside the classroom.

Another important contribution is the recognition of teacher identity and professional dispositions. While previous studies often treat professional development as an institutional obligation, our learners viewed continuous self-reflection, adaptability, and confidence as intrinsic qualities of effective educators. This suggests that professional growth cannot be achieved solely through top-down interventions but must also be cultivated through teacher agency and reflective practice (Valtonen et al., 2021).

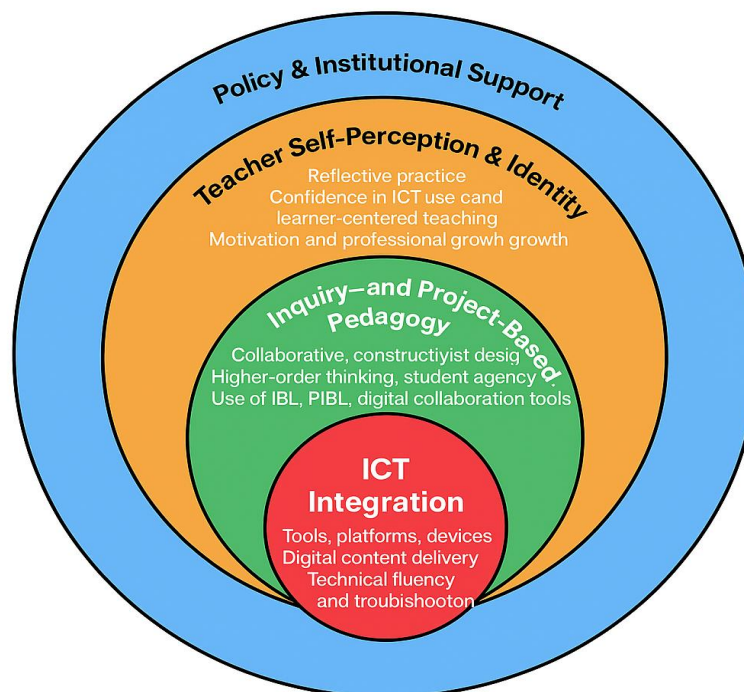
Furthermore, the alignment with NEP 2020 is evident. The National Professional Standards for Teachers (NPST), proposed in NEP 2020, call for a comprehensive framework covering competencies, ethics, and career progression. Our study provides empirical backing for these policy directions, while also cautioning that policy implementation must include learner feedback loops to remain grounded in classroom realities.

In sum, this research contributes by shifting the analytical focus from teachers and institutions to learners—revealing how students in distance education conceptualize effective teaching in the 21st century. This bottom-up perspective is critical for creating professional standards and training programmes that are responsive, relevant, and future-ready.

### Toward an Integrated Conceptual Framework

Out of above discussion, researchers propose a framework for distance teaching. Figure 1 situates the four domains in a recursive relationship:

- 1) ICT integration provides the technological *means*.
  - 2) Inquiry-based pedagogy supplies the *method*;
  - 3) Teacher self-perception shapes the *mindset*;
  - 4) Policy and institutional conditions create the *milieu*.
- Improvements in any single domain reinforce the others, suggesting that piecemeal interventions (e.g., one-off software workshops) are unlikely to deliver sustainable change.



Integrated Conceptual Framework for 21st-Century Teacher

(Figure 1 description: A concentric model with ICT integration at the core, surrounded by pedagogy, teacher identity, and an outer ring of policy/institutional support.)

Above mentioned skills are important in online tutors but there are certain factors affecting acquisition of these skills. These are as follows:

- 1) **Learning through Mentorship and Peer Collaboration:** Working with experienced mentors who model 21st-century teaching practices (Schoenfeld & Persichitte, 2000) is important to integrate these skills in one's teaching. Same motivational effect is also provided by Peer learning groups or professional learning communities (PLCs) that focused on sharing tools, strategies, and reflections.
- 2) **Institutional Support and Incentivization:** Institutional culture that encourages innovation and risk-taking in pedagogy (Chiappe et al., 2020) is crucial to develop above skills. Recognition or rewards for

effective integration of 21st-century teaching practices must be done by institutions.

- 3) **Designing and Facilitating Inquiry- or Project-Based Learning:** another crucial factor that decide the skillful integration of ICT in teaching is actively using IBL/PBL strategies in the classroom to gain hands-on experience in facilitating higher-order skills (Chu et al., 2017; Hujatusnaini et al., 2022). Using tools like wikis, Google Classroom, collaborative docs, etc., in real teaching scenarios can enhance one's skill of using technology in class.
- 4) **Participating in Continuous Professional Development (CPD):** Without any doubt the continuous professional development by Government-led or institution-supported Workshops, online training, and certificate courses on digital tools and pedagogy

(Gupta & Tiwari, 2021; Chiappe et al., 2020) aligned with NEP 2020 goals plays very important role in enhancing integration of these skills as reflective practice during and after training further solidify learning (Valtonen et al., 2021), boost integration of critical thinking, communication, collaboration, and creativity in teaching practicum (Astuti et al., 2019).

- 5) **Regular self-assessment:** Most important factor that helps teachers to gain needed confidence is Regular self-assessment of digital and pedagogical competencies (Anagün, 2018; Valtonen et al., 2021). Teachers should maintain teaching journals or e-portfolios to track progress and refine their strategies.

## 4. Conclusion

This study underscores that the success of online and distance education in the 21st century depends on teachers' ability to integrate digital literacy, innovative pedagogy, adaptability, and reflective professional growth. Distance learners, as direct beneficiaries of these competencies, provide valuable insights into what truly enhances their learning experience. Their perspectives suggest that teacher effectiveness is not merely a function of technical knowledge or curriculum design but also of confidence, adaptability, and learner-centered engagement.

For policymakers, the findings highlight the urgent need to align teacher training with the NPST framework under NEP 2020. Training modules should integrate ICT mastery, inquiry-driven pedagogy, and reflective practices, supported by institutional incentives for continuous professional development. Institutions must also recognize learners as key stakeholders in teacher evaluation and professional growth.

For practitioners, the results emphasize that developing a lean, technology-enabled, and inquiry-based pedagogy is no longer optional—it is essential. Teachers must position themselves as facilitators of dialogue, co-learners, and mentors who are capable of adapting to rapidly evolving educational landscapes.

Future research could extend this study by examining teacher and learner perspectives in a comparative framework, conducting longitudinal studies to track competency development, or exploring cross-cultural variations in how 21st-century teacher skills are perceived. Such directions would enrich global discourse and help establish universally adaptable yet locally relevant models of teacher effectiveness.

In conclusion, empowering educators in the online world requires a holistic, multi-stakeholder approach where technology, pedagogy, professional identity, and policy frameworks intersect. By integrating learners' voices into this equation, education systems can move closer to the vision of a future-ready, inclusive, and high-quality learning ecosystem.

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