



The Universal Scholar Journal

International Peer-Reviewed | Open Access | Multidisciplinary Research Journal

Vol I, Issue V, Monthly, September, 2026



THE UNIVERSAL SCHOLAR JOURNAL (TUSJ)

Volume I, Issue V, Monthly, September, 2026 | ISSN: 3139-4981

www.theuniversalscholarjournal.com

THE UNIVERSAL SCHOLAR JOURNAL

International Peer-Reviewed | Open Access | Multidisciplinary Research Journal

Vol. I, Issue V, Monthly, September, 2026

Copyright and License

© 2026 The Author(s). This article is licensed under the Creative Commons Attribution 4.0 International License (CC BY 4.0).

The article may be shared, copied, redistributed, remixed, transformed, and reused for any purpose, including commercial purposes, provided that appropriate credit is given to the original author(s) and source, a link to the license is provided, and any changes are indicated.

License: CC BY 4.0

Official License URL: <https://creativecommons.org/licenses/by/4.0/>

Journal Website: <https://theuniversalscholarjournal.com/>



THE UNIVERSAL SCHOLAR JOURNAL (TUSJ)

Volume I, Issue V, Monthly, September, 2026

www.theuniversalscholarjournal.com

THE UNIVERSAL SCHOLAR JOURNAL (*Internationally Peer Reviewed Journal*)

PATRON

Sunil Kumar

editor@theuniversalscholarjournal.com

ADVISORY BOARD

Dr. Gurmit Singh

(Associate Professor)

Malwa Central College of Education for Women

Civil Lines, Ludhiana (Pb.) India

Dr. Tripta Parmar

(Principal)

SDS College of Education for Women,

Lopon (Moga) Pb. – India

Dr. Jasleen Kewlani Rambani

(Associate Professor in Sociology)

Rajiv Gandhi National University of

Law, Patiala (Pb.), India

Dr. Laxman Singh Kandari

Assistant Professor

Department of Forestry & Natural

Resources, School of Agriculture and

Allied Sciences, Chauras Campus, HNB

Garhwal University, Srinagar

Garhwal-246174 Uttarakhand

Amal George

Assistant Professor

Department of Management Studies,

KMCT College of Engineering for

Emerging Technologies and

Management, Kasaragod

EDITORIAL BOARD

Dr. Mulu A. Alemu Ethopia

(Assistant Professor)

Advisory Board Member

Department of Management, Mekelle

University, Ethiopia

Dr. Ndumiso Tshuma (HOD)

Executive Director & Public Health

Specialist, Johannesburg, South Africa

Prof (Dr) Aman Vats

(Professor & Deputy Director)

Professor & Deputy Director, Amity

School of Film and Drama, Amity

University UP.

Dr. Kapil Metha (HOD)

(Dept. of Emerging Technologies)

Chandigarh Engineering College,

Landran, SAS Nagar (Pb.)

Dr. Sachin Kumar

(Head & Associate Professor)

Department of Mathematics and

Statistics

Central University of Punjab,

Ghudda 151401, Bathinda, Punjab,

India



THE UNIVERSAL SCHOLAR JOURNAL (TUSJ)

Volume I, Issue V, Monthly, September, 2026

www.theuniversalscholarjournal.com

Index

Sr. No.	Topic of Research Paper / Name of Authors	Page No.
1.	Sleep Apnea: Mechanisms, Diagnosis, and Evolving Interventions by <i>Mandeep Singh Bangoo & Manmohit Singh</i>	1-5
2.	Teacher Trainees in the Digital World: Cybersecurity Awareness and Technology Attitudes by <i>Dr. Sunil Kumar</i>	6-21
3.	Revival of Mughal-Era Costumes through the Reuse of Existing Fabrics by <i>Nitika Sharma & Dr. Mamta Rana</i>	22-35
4.	Challenges in Implementing AI-Powered HR Technology in the IT and Apparel Manufacturing Sectors by <i>Jasmine Sharma</i>	36-42
5	Pahari Mural Painting as an Indian Knowledge System: Indigenous Art, Cultural Memory and Sustainable Heritage Conservation by <i>Mani Sharda</i>	43-46
6	Review of Machine and Deep Learning Methods for Phulkari Image Analysis and Classification by <i>Er. Shikha Bansal & Dr. Vijay Laxmi</i>	47-60
7	Reframing Teacher Education through the Community of Inquiry Framework: Towards Reflective and Collaborative Pedagogies in ITEP by <i>Amitabha Datta</i>	61-71



Reframing Teacher Education through the Community of Inquiry Framework: Towards Reflective and Collaborative Pedagogies in ITEP

Amitabha Datta (Research Scholar)

Staff Training and Research Institute of Distance Education (STRIDE), Indira
Gandhi National Open University (IGNOU), India

Abstract

The National Education Policy (NEP) 2020 emphasizes a transformation in teacher education by prioritizing reflection, collaboration, and critical inquiry. This paper critically examines the Community of Inquiry (CoI) framework—comprising cognitive, social, and teaching presence—as a model for strengthening reflective and collaborative learning in the Integrated Teacher Education Programme (ITEP). A qualitative, descriptive–analytical approach is used to examine how CoI principles can be embedded in blended and face-to-face modalities of ITEP to enhance engagement, reflective thinking, and pedagogical reasoning. By integrating macro-level national infrastructure and digital readiness data (such as AISHE and DIKSHA) with micro-level pedagogical interactions, this study establishes the structural feasibility of implementing CoI in Indian higher education. Strategies for supporting collaborative inquiry communities are highlighted, emphasizing a shift from content transmission to co-construction of knowledge. Findings indicate that CoI-aligned design can nurture inquiry-oriented, empathetic, and digitally fluent educators capable of supporting inclusive K–12 classrooms in alignment with NEP 2020. The paper concludes with implications for curriculum design, faculty development, and institutional practices.

Keywords: Community of Inquiry; Integrated Teacher Education Programme (ITEP); Reflective pedagogy; Collaborative learning; Teaching presence; Secondary data triangulation.

Introduction

The National Education Policy (NEP, 2020) emphasizes a transformative approach to teacher education by prioritizing reflective practice, experiential learning, collaboration, and inclusive values. The Integrated Teacher Education Programme (ITEP), designed as a four-year multidisciplinary programme, aims to prepare teachers who are content-competent, pedagogically reflective, and socially responsive.

The Community of Inquiry (CoI) framework (Garrison et al., 2000) offers a well-established foundation for designing innovative pedagogy aligned to ITEP goals. The CoI



THE UNIVERSAL SCHOLAR JOURNAL (TUSJ)

Volume I, Issue V, Monthly, September, 2026 | ISSN: 3139-4981

www.theuniversalscholarjournal.com

model is based on three interdependent presences that support learning: cognitive presence, social presence, and teaching presence. When applied in teacher education, CoI supports reflective dialogue and collaborative inquiry, moving beyond teacher-centred practices to participatory, inquiry-driven learning (Garrison & Vaughan, 2008).

Crucially, because ITEP operates as a 4-year multidisciplinary model, it requires distinct pedagogical designs that bridge disciplinary knowledge with professional practice. CoI is uniquely suited to this structure because its intersecting presences dismantle traditional silos, enabling pre-service teachers to co-construct knowledge across disciplines. This paper explores how CoI can serve as a pedagogical model within ITEP to cultivate reflective, collaborative, and professionally resilient pre-service teachers.

Theoretical Foundation and Review of Literature

The Community of Inquiry (CoI) framework (Garrison et al., 2000) is widely used to design and evaluate online and blended learning by viewing meaningful learning as emerging through structured interaction. CoI identifies three core presences:

- (a) cognitive presence—reflective meaning-making;
- (b) social presence—open communication and belonging; and
- (c) teaching presence—design, facilitation, and direction.

These presences operate interdependently to support reflective and collaborative learning environments essential for teacher preparation.

Arbaugh et al. (2008) validated a CoI survey instrument, establishing reliable indicators for measuring the three presences. Garrison and Vaughan (2008) demonstrated how CoI principles can structure blended learning—directly applicable to ITEP’s blended design. Akyol and Garrison (2011) found that strong teaching presence enhances cognitive depth, indicating facilitation as a key driver of reflective inquiry. Stenbom (2018) confirmed CoI’s strong psychometric basis while recommending contextual adaptation in diverse education settings such as ITEP. Fiock (2020) outlined strategies such as structured online prompts and targeted facilitation to strengthen engagement in digital learning. Sanders (2020) showed CoI’s applicability to school-based contexts, providing insights for pre-service field experiences. Ullah et al. (2024) extended CoI to social media-integrated environments, promoting reflective dialogue and digital citizenship among teacher candidates. Richardson et al. (2024) identified disciplinary variations in CoI design, underscoring the need for contextualized approaches in ITEP. Wertz (2022) proposed incorporating emotional presence



THE UNIVERSAL SCHOLAR JOURNAL (TUSJ)

Volume I, Issue V, Monthly, September, 2026 | ISSN: 3139-4981

www.theuniversalscholarjournal.com

to account for affective engagement.

Together, these studies demonstrate the adaptability of CoI to teacher education and establish a robust research base for reflective, collaborative pedagogy within ITEP.

Objectives

- To examine the relevance of the Community of Inquiry framework in the context of the Integrated Teacher Education Programme (ITEP).
- To analyse how cognitive, social, and teaching presence contribute to reflective and collaborative learning in teacher education.
- To propose pedagogical strategies for embedding CoI principles within blended and face-to-face ITEP courses
- To explore the perceived challenges and opportunities in implementing CoI-based pedagogy in teacher education.

Research Questions

- **RQ1:** How can the Community of Inquiry framework enhance reflective and collaborative pedagogies within ITEP?
- **RQ2:** What are the relationships among cognitive, social, and teaching presences in facilitating pre-service teacher learning?
- **RQ3:** How can the CoI framework be embedded into the ITEP Curriculum?
- **RQ4:** What are the perceived challenges and opportunities in implementing CoI-based pedagogy in teacher education?

Methods and Procedure

This study employed a qualitative descriptive–analytical research design based entirely on secondary data sources. The purpose was to synthesize existing literature and policy evidence to explore CoI as an innovative pedagogical model for ITEP.

Secondary Data Integration

To contextualize CoI within Indian teacher education, national-level data from the All-India Survey on Higher Education (AISHE) 2020–21, UDISE+ 2024–25, and DIKSHA analytics (2020–22) were reviewed. These datasets provided insights into enrolment, institutional distribution, ICT facilities, and teacher digital engagement, shaping CoI feasibility in ITEP.



THE UNIVERSAL SCHOLAR JOURNAL (TUSJ)

Volume I, Issue V, Monthly, September, 2026 | ISSN: 3139-4981

www.theuniversalscholarjournal.com

Table 1. Secondary Data Sources Used in the Study

Source	Type of Evidence	Relevance to CoI–ITEP
Scholarly Literature	Conceptual and empirical	Demonstrates CoI effectiveness in teacher education
AISHE 2020–21	Institutional digital readiness, enrolment, faculty	Teaching presence capacity
UDISE+ 2024–25	School infrastructure & teacher distribution	Practicum collaboration potential
DIKSHA 2020–22	Digital engagement & professional development	Social/cognitive presence development
NEP 2020; ITEP Curriculum Framework	Policy frameworks	Alignment with reflective pedagogy priorities

Justification for Research Design

This approach aligns with conceptual research objectives in education, where the goal is to reinterpret and contextualize existing frameworks to guide new programme implementation (Best & Kahn, 2016). Integrating multiple data sources enhances validity through triangulation while enabling timely analysis in an evolving policy context without primary field research delays.

Results and Discussion**RQ1. How can the Community of Inquiry framework enhance reflective and collaborative pedagogies within ITEP?**

Secondary data from AISHE (2020–21), UDISE+ (2024–25), and DIKSHA (2020–22) indicate conditions highly conducive to CoI integration in ITEP. Expanding ICT infrastructure, large-scale digital engagement through DIKSHA, and the strong presence of qualified faculty provide structural readiness for teaching presence, while teacher participation in digital communities supports social and cognitive presence.



Table 2. Key Indicators Supporting CoI Integration in ITEP

Indicator	Evidence	Pedagogical Implication
ICT facilities in HEIs	91% ICT-enabled (AISHE)	Enables blended & online facilitation
Teacher participation	>15 crore DIKSHA enrolments	Builds digital social presence
Faculty strength	1.55 million in HEIs	Capacity for instructional support
Gender Parity Index	1.05	Inclusive collaborative learning

These indicators suggest that CoI can operationalize reflective and collaborative learning aligned with ITEP's goals.

RQ2. What are the relationships among cognitive, social, and teaching presences in facilitating pre-service teacher learning?

Analysis indicates reciprocal relationships among the three presences in shaping pre-service teacher learning. Teaching presence establishes structure and guidance that promotes social interaction and inquiry. Social presence encourages communication and belonging that sustains engagement. Cognitive presence deepens meaning-making and supports the development of a professional teacher identity.

Table 3. Interaction of CoI Presences Supported by Data

Relationship	Evidence from Literature	Data Support
Teaching → Social	Facilitated design strengthens collaboration (Garrison & Vaughan, 2008)	ICT access improves communication
Social → Cognitive	Dialogue enhances inquiry (Ullah et al., 2024)	DIKSHA interactions reflect engagement
Teaching ↔ Cognitive	Facilitation scaffolds deep learning (Akyol & Garrison, 2011)	Faculty competence supports inquiry

Analytical Note: A critical evaluation of these interactions reveals that digital hardware availability (AISHE data) does not automatically generate deep cognitive presence. Structural readiness must be activated by deliberate teaching presence (e.g., structured tasks, formative feedback) to bridge the gap between simple connectivity and genuine pedagogical reflection.



THE UNIVERSAL SCHOLAR JOURNAL (TUSJ)

Volume I, Issue V, Monthly, September, 2026 | ISSN: 3139-4981

www.theuniversalscholarjournal.com

RQ3. How can the CoI framework be embedded into the ITEP Curriculum?

A five-phase CoI-integrated strategy can support the development of reflective, collaborative, and digitally empowered pre-service teachers through blended learning pathways.

Table 4. CoI-Integrated Pedagogical Strategy for ITEP

Phase	Year	Modality	Presence Focus	Strategy	Intended Outcome
1. Foundation	Year 1	Face-to-face	Teaching	Microteaching; guided discussions	Early facilitation skills
2. Digital Socialization	Yrs 1–2	Blended	Social	Online peer dialogues; group tasks	Professional community building
3. Inquiry Development	Yrs 2–3	Blended	Cognitive	Case-based reflection; e-portfolios	Meaning-making & reasoning
4. Practicum Integration	Yrs 3–4	Hybrid	All	Online mentoring + field tasks	Theory–practice coherence
5. Capstone Synthesis	Final sem	Hybrid	Teaching & Cognitive	Action research dissemination	Reflective professional identity

Core assessment elements may include reflective journals, portfolio analysis, peer evaluations, and digital interaction metrics.

Table 5. Assessment Strategies

Presence	Assessment Approach	Indicators
Teaching Presence	Facilitator feedback, peer evaluation, lesson design rubrics	Clarity, structure, and responsiveness in teaching design.
Social Presence	Observation of discussion participation, peer collaboration score	Engagement, collegiality, empathy, and mutual respect.
Cognitive Presence	Reflective journal analysis, portfolio evaluation, concept mapping	Depth of reasoning, synthesis, and evidence of inquiry.

A progression across the four-year programme can join subject study, professional coursework and school practice. The stages in Table 4 are a proposed design sequence, not an official ITEP timetable. Local curriculum regulations and placement arrangements should determine the precise timing.



Table 6. Proposed progression of inquiry activities in ITEP

Stage	Learning activity	CoI mechanism	Evidence for assessment
Early coursework	Discuss a classroom case and justify a first response	Teaching presence frames inquiry; social presence permits disagreement	Reasoned case note and feedback
Collaborative design	Co-design a lesson and review peer alternatives	Social and teaching presence scaffold explanation	Lesson plan with revision memo
School observation	Document a pupil-learning dilemma and compare interpretations	Cognitive presence links observation to evidence	Observation log and reflective journal
Practicum	Teach, receive mentor and peer feedback, revise and reteach	All three presences connect dialogue and action	Lesson artefacts and mentor rubric
Capstone	Investigate a bounded teaching problem and present an evidence-based account	Inquiry is integrated across the presences	Portfolio and oral defence

Source: Author's conceptual synthesis of CoI literature and the ITEP curriculum framework.

These activities can occur face to face, online or through low-bandwidth exchanges. A learning management system can archive dialogue and feedback, but written journals, local peer groups and scheduled mentoring are viable where access is intermittent. Teaching presence includes timely intervention and assessment clarity; it should not be reduced to posting materials. Peer talk becomes evidence of social presence only when interaction enables trust, purposeful disagreement and joint work (Garrison et al., 2000; Fiock, 2020).

RQ4. What are the perceived challenges and opportunities in implementing CoI-based pedagogy in teacher education?

Since the Integrated Teacher Education Programme (ITEP) is a recent initiative under the National Education Policy (NEP) 2020, longitudinal data on its implementation are limited. However, secondary data from national sources such as AISHE (2020–21), UDISE+ (2024–25), DIKSHA Analytics (2020–22), and recent scholarly literature provide valuable insights into the perceived challenges and emerging opportunities in its rollout across India.

Table 7. Triangulation Matrix of Challenges and Opportunities

Dimension	Challenge (From data)	Opportunity (From data)	CoI Alignment
Institutional	Uneven infrastructure; limited NKN connectivity	90% ICT presence in HEIs	Enables teaching presence through facilitation design



Faculty	Limited exposure to inquiry-based teaching	DIKSHA-enabled online PD	Strengthens teaching presence
Curriculum	Theory–practice integration gaps	NEP 2020’s reflective pedagogy focus	Enhances cognitive presence
Access & Equity	Rural/digital divide	Gender parity & OER expansion	Builds social presence
Quality Assurance	Lack of ITEP-specific data	National datasets (AISHE/UDISE+)	Supports evidence-based CoI evaluation

Implications of the Study

For Teacher Education Institutions:

- Incorporate CoI presences explicitly into curriculum design and learning outcomes.
- Prioritize professional development for teacher educators in blended facilitation and inquiry-based pedagogy.
- Use digital portfolios and discussion analytics to monitor pre-service teacher engagement with reflective practice.

For Policy and Governance:

- Integrate CoI practices within ITEP guidelines and accreditation norms.
- Strengthen institution–school partnerships to ensure consistent reflective practices during practicum placements.

For Pre-service Teachers:

- Develop skills in collaborative professionalism, reflective thinking, and digital communication as components of teacher identity.

Limitations and Future Scope

A primary limitation of this study is its exclusive reliance on secondary data sources, without capturing direct experiential perspectives from pre-service teachers or teacher educators implementing CoI-based pedagogy. Future research should move toward mixed-methods empirical designs—combining validated CoI survey instruments (Arbaugh et al., 2008) with classroom discourse analysis across diverse ITEP institutions. Longitudinal studies could examine how individual CoI presences evolve across the four years of the programme and within varied practicum school environments, generating actionable metrics for ongoing programmatic enhancement.



THE UNIVERSAL SCHOLAR JOURNAL (TUSJ)

Volume I, Issue V, Monthly, September, 2026 | ISSN: 3139-4981

www.theuniversalscholarjournal.com

Table 8. Indicators for a future ITEP evaluation

Presence	Possible indicator	Source of evidence	Interpretive caution
Teaching	Clarity of tasks and usefulness of feedback	Course design audit; candidate interviews	Instructor intention may differ from experience
Social	Reciprocal participation and constructive peer response	Discussion samples; observation	Posting frequency does not measure trust
Cognitive	Problem definition, justification and revision	Case notes; journals; portfolio rubric	Reflective prose does not prove classroom transfer
Integration	Use of feedback in revised teaching	Lesson versions; mentor observation	School context and mentor support also matter

Source: Author's proposed evaluation indicators; adapted conceptually from Garrison et al. (2000) and Arbaugh et al. (2008).

A feasible pilot could follow a small number of ITEP cohorts through one course and practicum cycle. With institutional permission and informed consent, researchers could combine a locally adapted CoI survey (Arbaugh et al., 2008), rubric-scored portfolios, observation of seminars and practicum, and interviews with candidates and mentors. Baseline and later portfolio samples would document change; comparison across institutions with different access and mentoring conditions would test alternative explanations. Any survey adaptation needs cognitive interviewing and reliability checks before scores are compared.

Conclusion

The synthesis of national data (AISHE, UDISE+, DIKSHA) and existing scholarship indicates that ICT readiness and faculty competence provide a structural foundation for teaching presence in Indian higher education. Widespread teacher engagement in digital platforms supports the development of social presence, and a growing emphasis on reflective practice aligns well with cognitive presence. Overall, findings suggest that the Community of Inquiry (CoI) framework can operationalize reflective, engaging, and collaborative pedagogies in ITEP, supporting NEP 2020's call for inquiry, empathy, and technology integration in teacher education.

References

- Akyol, Z., & Garrison, D. R. (2011). Understanding cognitive presence in an online and blended community of inquiry: Assessing outcomes and processes. *British Journal of Educational Technology*, 42(2), 233–250. <https://doi.org/10.1111/j.1467-8535.2009.01029.x>
- Arbaugh, J. B., Cleveland-Innes, M., Díaz, S. R., Garrison, D. R., Ice, P., Richardson, J. C., &



THE UNIVERSAL SCHOLAR JOURNAL (TUSJ)

Volume I, Issue V, Monthly, September, 2026 | ISSN: 3139-4981

www.theuniversalscholarjournal.com

- Swan, K. P. (2008). Developing a community of inquiry instrument: Testing a measure of the community of inquiry framework. *The Internet and Higher Education*, 11(3–4), 133–136.
- Best, J. W., & Kahn, J. V. (2016). *Research in education* (10th ed.). Pearson.
- DIKSHA. (2022). *DIKSHA platform usage analytics 2020–22*. Ministry of Education, Government of India.
- Fiock, H. (2020). Designing a community of inquiry in online courses. *International Review of Research in Open and Distributed Learning*, 21(1), 134–152.
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2–3), 87–105.
- Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. Jossey-Bass.
- Ministry of Education. (2020). *National Education Policy 2020*. Government of India.
- NCTE. (2021). *Integrated Teacher Education Programme: Curriculum framework (Draft)*. National Council for Teacher Education.
- Sanders, K. (2020). K–12 online social studies instruction: A Community of Inquiry perspective. *Journal of Online Learning Research*, 6(1), 22–45.
- Stenbom, S. (2018). A systematic review of the community of inquiry survey. *The Internet and Higher Education*, 39, 22–32.
- UDISE+. (2024). *Unified District Information System for Education Plus: National report 2024–25*. Ministry of Education, Government of India.
- Ullah, I., et al. (2024). Social-media-based community of inquiry with pre-service teachers: Implications for reflective practice. *PLOS ONE*, 19(3), e0286543.
- Wertz, R. E. H. (2022). An expanded measurement model for the Community of Inquiry survey. *The Internet and Higher Education*, 52, 100835.



Copyright and License
Copyright and License

Copyright © 2026 Amitabha Datta

This article is licensed under the Creative Commons Attribution 4.0 International License (CC BY 4.0), unless otherwise stated. Copyright remains with Amitabha Datta. The Universal Scholar Journal (TUSJ) receives the non-exclusive rights necessary to publish, distribute, archive, preserve, and make the article publicly available.

License: Creative Commons Attribution 4.0 International (CC BY 4.0)

Official License URL: <https://creativecommons.org/licenses/by/4.0/>

Journal Website: <https://theuniversalscholarjournal.com/>

