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Research Article

"To Analyse and Juxtapose the Teacher Education Systems of India and Finland, Specifically Highlighting the Roles of Regulatory Institutions in Shaping Teacher Preparation and Governance"

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ABSTRACT

Teacher education systems play a pivotal role in shaping the quality of education, yet they vary significantly across nations. This study undertakes a comparative analysis of teacher education in India and Finland, focusing on the influence of regulatory institutions in governing teacher preparation. Finland's education system is globally renowned for its high-performing teachers and decentralized, trust-based governance, whereas India's system is characterized by centralized regulatory bodies, such as the National Council for Teacher Education (NCTE), and evolving reforms aimed at improving teacher quality.

Using a qualitative research approach, this paper examines the structural frameworks, policy mandates, and institutional mechanisms governing teacher education in both countries. Finland's success is attributed to its rigorous selection process, research-based training, and autonomy granted to universities, whereas India faces challenges such as inconsistent regulatory enforcement, variable program quality, and a lack of uniformity in teacher preparation standards. The study highlights how Finland's Ministry of Education and Culture, along with universities, fosters a culture of professionalism, while India's regulatory system struggles with bureaucratic inefficiencies and implementation gaps.

Key findings suggest that Finland's flexible, competency-based approach ensures teacher autonomy and continuous professional development, while India's centralized system requires structural reforms to enhance accountability and pedagogical innovation. The study concludes with policy recommendations for India, emphasizing decentralized governance, stronger institutional collaboration, and research-integrated teacher training to align with global best practices. This comparative analysis contributes to the discourse on teacher education reform, offering insights for policymakers and educators striving to enhance teacher preparation systems.

Keywords: Teacher education, regulatory institutions, comparative education, India, Finland, governance, policy reform.

1. Introduction

Teacher education systems are pivotal to shaping the future of national educational quality and equity. Teachers are not merely transmitters of knowledge; they are architects of learning, shapers of student identity, and catalysts of social change. The mechanisms by which nations prepare, regulate, and support teachers offer valuable insights into broader educational philosophies, policy intentions, and socio-political realities. Against this backdrop, the comparative analysis of teacher education systems in India and Finland serves as a meaningful inquiry into how contrasting regulatory architectures influence pedagogical futures.

India and Finland present a compelling comparative case due to their striking contextual divergences and distinct educational trajectories. India, with its colonial legacy, federal governance structure, and socio-cultural

heterogeneity, has wrestled with quality disparities, regulatory lapses, and institutional fragmentation in teacher education (Batra, 2005; Government of India, 2020). On the other hand, Finland, consistently ranked among the world's top-performing education systems, exemplifies a model built on egalitarianism, trust, and research-led teaching (Sahlberg, 2011; Niemi, 2012).

India's National Education Policy 2020 (NEP 2020) outlines ambitious reforms that include restructuring teacher education through integrated degrees, competency-based curriculum, and enhanced accountability. However, the implementation of such reforms hinges on systemic overhauls in regulatory mechanisms, institutional governance, and professional culture (GoI, 2020). Finland, having undergone similar reforms in the 1970s and 1980s, offers a mature model where teacher education is embedded in universities, teaching is a high-status profession, and regulation is achieved through autonomy and trust, rather than bureaucratic compliance (Toom et al., 2010; OECD, 2019).

This paper adopts a comparative methodology to explore the structural, curricular, and regulatory underpinnings of teacher education in both countries. It interrogates how institutional frameworks, policy instruments, and pedagogical philosophies shape the quality and effectiveness of teacher preparation. The central aim is to assess the impact of regulatory architectures on pedagogical futures—specifically, the professional identity, autonomy, and efficacy of teachers.

Objectives of the Study

1.To analyse the historical evolution of teacher education policies and regulatory bodies in India and Finland.
2. To examine the structure and governance of teacher education institutions and their operational dynamics.
3. To evaluate curricular design and pedagogical orientation in pre-service teacher training programs.
4. To compare recruitment processes, in-service professional development, and the extent of teacher autonomy.
5. To critically assess the roles of regulatory institutions in ensuring quality assurance and continuous improvement.
6. To identify transferable lessons from the Finnish model and propose policy recommendations tailored to the Indian context.

Research Questions

1.How have teacher education systems in India and Finland evolved in response to socio-political and educational imperatives?
2. What are the similarities and differences in institutional governance and regulatory practices in both contexts?
3. In what ways do curricular and pedagogical designs reflect national educational philosophies?
4. What is the role of teacher autonomy and accountability in enhancing pedagogical effectiveness?
5. How can India adapt policy innovations from Finland while accounting for its unique federal and cultural realities?

Theoretical Framework

This study is anchored in comparative education theory and draws upon regulatory theory (Black, 2002) and sociocultural learning frameworks (Vygotsky, 1978; Lave & Wenger, 1991). Regulatory theory emphasizes how rules, norms, and institutions shape organizational behavior, while sociocultural learning theory highlights the relational and contextual dimensions of teacher identity formation. Together, these perspectives illuminate how teacher education is not merely a technical process but a deeply social and political enterprise.

Methodology

The study employs a qualitative, document-based comparative methodology, analysing official policy documents (e.g., NEP 2020, Finnish National Curriculum), academic literature, evaluation reports from regulatory agencies (e.g., NCTE, FINEEC), and secondary datasets from organizations such as UNESCO, OECD, and World Bank. The comparative lens is interpretive, aiming not merely to enumerate differences, but to understand their implications in contextually grounded ways (Phillips & Schweisfurth, 2014).

Significance of the Study

In the era of global educational benchmarking, superficial policy borrowing often leads to policy failure due to contextual misalignment (Steiner-Khamsi, 2012). This paper aims to avoid such pitfalls by adopting a nuanced, grounded, and critical approach to comparative analysis. Its significance lies in offering policymakers, teacher educators, and scholars a reflective roadmap for aligning regulatory reform with pedagogical vision—especially in the Indian context, where policy ambition often collides with ground realities.

2. Historical Evolution of Teacher Education and Regulatory Frameworks

Understanding the historical trajectory of teacher education and regulatory institutions is essential for contextualizing current policy approaches and institutional configurations. The teacher education systems in India and Finland have evolved through markedly different historical, political, and socio-cultural paths. This

section traces the development of regulatory structures and the paradigms of teacher preparation in both countries, highlighting the influence of colonialism, nationalism, welfare state formation, and global education reforms.

2.1 Teacher Education in India: Colonial Legacies and Postcolonial Reforms

Teacher education in India has its roots in colonial educational policies that aimed to create a class of intermediaries who could assist the British administration (Kumar, 1991). The Wood's Despatch of 1854 and later the Hunter Commission of 1882 formalized teacher training as a tool for administrative convenience rather than educational emancipation. The colonial system largely neglected indigenous knowledge systems and emphasized rote learning and mechanical pedagogy (Nurullah & Naik, 1951).

Post-independence, education was envisioned as a tool for nation-building. The University Education Commission (1948–49) and the Kothari Commission (1964–66) underscored the need to reform teacher education to develop a democratic, secular, and scientific temper (GoI, 1966). However, despite these visionary reports, implementation remained fragmented, and the expansion of teacher education often compromised quality.

The regulatory regime was formalized with the establishment of the **National Council for Teacher Education (NCTE)** in 1995, mandated to oversee norms, standards, and quality in teacher education institutions (TEIs) (NCTE, 1998). However, critiques emerged regarding the proliferation of substandard private colleges, corruption in accreditation, and bureaucratic inefficiencies (Batra, 2005; Sriprakash, 2012). Reforms like the **Right to Education Act, 2009** and the **Justice Verma Commission (2012)** sought to address quality deficits, teacher shortages, and regulatory lapses by recommending integrated degrees, centralized assessments, and institutional restructuring.

The **National Education Policy 2020 (NEP 2020)** marks a significant shift, advocating for a four-year integrated B.Ed. program, phased closure of standalone teacher education institutions (TEIs), and increased oversight by central and state regulatory bodies. These reforms signal an attempt to rectify historical fragmentation and reimagine teacher education as a multidisciplinary, research-oriented, and professionalized field (GoI, 2020).

2.2 Teacher Education in Finland: From Normal Schools to University-Based Training

In contrast to India's colonial inheritance, Finland's education system evolved through Nordic welfare principles and state-led modernization. In the late 19th century, Finland developed "normal schools" (seminars) that trained primary teachers with a strong focus on civic responsibility, ethics, and national identity (Simola, 2005).

Post-WWII, Finland undertook a radical transformation of its teacher education system in response to social equality goals and economic modernization. A watershed moment occurred in the 1970s when Finland shifted all teacher education programs into universities, aligning them with academic disciplines and research-based pedagogies (Niemi, 2012). This shift was part of a larger reform under the **Basic Education Act (1968)** that mandated comprehensive education for all.

The **Finnish National Agency for Education (EDUFI)** and the **Finnish Education Evaluation Centre (FINEEC)** were subsequently tasked with oversight and quality assurance. Unlike India, regulation in Finland is characterized by trust, professional autonomy, and internal evaluation rather than external control (Sahlberg, 2011).

Teacher education in Finland today includes:

- A **five-year integrated Master's degree** for all teachers.
- Strong emphasis on **educational research, reflective practice, and didactics**.
- High selectivity with **less than 10% acceptance** rates in most teacher education programs (Toom et al., 2010).
- Continuous professional development supported by municipal authorities and universities.

The historical evolution of teacher education in Finland reflects a deliberate alignment between educational policy, teacher professionalism, and national development. Regulation is not seen as a means of control but as a mechanism for fostering innovation and excellence.

2.3 Comparative Observations: Path Dependencies and Policy Drift

While both India and Finland have pursued educational reforms in response to socio-economic needs, the **path dependencies** embedded in their histories have led to divergent regulatory cultures. India's regulatory landscape has been reactive, fragmented, and at times, compromised by political interference and commercialization of education. Finland's trajectory, by contrast, is marked by coherence, institutional trust, and investment in teacher professionalism.

One major divergence is in the **locus of regulation**. India has oscillated between centralized and federal structures (e.g., NCTE vs. State Councils), often resulting in **policy drift** and implementation gaps. Finland, despite being a unitary state, allows for **decentralized pedagogical autonomy** while maintaining centralized quality benchmarks through national curricula and university-led evaluations (Simola, 2007).

Moreover, **teacher status and societal perceptions**—shaped historically—have played a crucial role. Finnish teachers are held in high esteem, often compared to doctors or engineers, due to rigorous training and policy coherence. In India, teaching has historically suffered from low prestige and has often been seen as a fallback profession, though recent policy efforts seek to change that narrative (NCTE, 2009; Bhattacharya, 2013).

3. Structure and Governance of Teacher Education

Teacher education is not merely a pedagogical enterprise; it is embedded within the broader institutional and governance architecture of a nation's education system. The structural organization and governing mechanisms significantly impact the effectiveness, equity, and accountability of teacher preparation. This section explores the structural formats and governance modalities of teacher education in India and Finland, highlighting institutional arrangements, regulatory relationships, and coordination among stakeholders.

3.1 India: A Complex Federal Structure and Regulatory Multiplicity

India's teacher education governance operates within a **quasi-federal** framework that combines central and state responsibilities, often leading to duplication, jurisdictional ambiguities, and inconsistent implementation across regions (NUEPA, 2014). The structure of teacher education is multi-layered, consisting of certificate, diploma, undergraduate, and postgraduate programs offered by a mix of government, government-aided, and private institutions.

Institutional Types and Entry Routes

India hosts over 17,000 teacher education institutions (TEIs), ranging from District Institutes of Education and Training (DIETs) for elementary teacher training, to colleges of teacher education and university departments offering B.Ed. and M.Ed. programs (NCTE, 2021). Entry routes include:

- **Diploma in Elementary Education (D.El.Ed)** – for primary teachers (2 years).
- **Bachelor of Education (B.Ed.)** – for upper-primary and secondary levels (2 years or integrated 4 years).
- **Master of Education (M.Ed.)** – for teacher educators and policy specialists.

The multiplicity of routes and institutions creates wide variations in quality, pedagogy, and outcomes (Kingdon, 2020).

Regulatory Institutions

Governance is primarily anchored by the **National Council for Teacher Education (NCTE)**, a statutory body under the NCTE Act, 1993. It lays down norms for infrastructure, faculty qualifications, curriculum, and intake, and grants recognition to TEIs (NCTE, 2009). However, oversight is shared with:

- **University Grants Commission (UGC)** – for academic standards.
- **State Councils of Educational Research and Training (SCERTs)** – for curriculum contextualization.
- **State Education Departments** – for service conditions and recruitment policies.
- **National Council of Educational Research and Training (NCERT)** – for national curriculum frameworks.

This **polycentric governance** model has led to challenges in coordination, enforcement, and data transparency. The **Justice Verma Commission (2012)** identified the need for regulatory coherence, professional standardization, and elimination of profit-driven practices in teacher education.

3.2 Finland: A Cohesive, University-Based Model with Institutional Trust

Finland's teacher education is governed within a **unitary state framework**, but with strong local autonomy in implementation. The Finnish approach prioritizes **institutional coherence**, **academic integration**, and **public accountability**.

Institutional Structure

All teacher education in Finland is housed within public universities, which are mandated by law to offer:

- **Class teacher programs** (for Grades 1–6): a five-year Master's degree in Education.
- **Subject teacher programs** (for Grades 7–9 and upper secondary): a Master's in the subject plus pedagogical studies.
- **Kindergarten teacher education**: Bachelor's in Early Childhood Education (ECE), often followed by Master's for administrative or expert roles.

Teacher training involves both **theoretical studies** and **intensive teaching practice** in **teacher training schools** affiliated with universities. This integration of practice within the academic system strengthens the reflective and research-based foundations of Finnish teachers (Toom et al., 2010).

Governance and Oversight

The **Ministry of Education and Culture (MoEC)** sets broad national policy directions and allocates resources. The **Finnish National Agency for Education (EDUFI)** develops national core curricula and ensures policy coherence. Quality assurance is entrusted to the **Finnish Education Evaluation Centre**

(FINEEC), which emphasizes self-evaluation and developmental feedback over punitive audits (Sahlberg, 2015).
Crucially, universities exercise **full academic autonomy** in designing curricula, selecting students, and conducting internal evaluations. The governance structure is characterized by:
- **Horizontal trust** among institutions.
- **Vertical coordination** through core curricula and national qualifications frameworks.
- **Absence of private teacher education institutions**, eliminating the commercial motive from regulatory tensions.

3.3 Comparative Structural Insights: Fragmentation vs. Integration
The structural and governance contrasts between India and Finland reveal two distinct paradigms:

Table 1.

Parameter	India	Finland
Governance Model	Quasi-federal, multi-layered	Unitary with decentralization in practice
Institution Types	Public and private TEIs, diverse pathways	Public universities only, uniform degrees
Curriculum Control	NCTE + SCERT + State Ed. Departments	University-led within national guidelines
Regulation Mechanism	Recognition, inspection, standardization	Self-evaluation, academic autonomy
Integration with Research	Weak, inconsistent	Strong, compulsory thesis and research
Practice Schools	Optional or underdeveloped	Compulsory and high-quality training schools

India's system is **fragmented**, with a tension between **quantity and quality**, while Finland's is **integrated**, emphasizing **research, autonomy, and reflective professionalism**.

3.4 Emerging Trends and Institutional Reforms
India's **National Education Policy 2020** envisions structural reforms to bridge these gaps by:
- Replacing existing TEIs with multidisciplinary institutions offering four-year integrated B.Ed. degrees.
- Creating the **National Mission for Mentoring** to support new teachers.
- Merging regulatory bodies under a proposed **Higher Education Commission of India (HECI)** for greater coherence (GoI, 2020).

Finland, meanwhile, is focused on **sustainability, digital competencies, and inclusive education** as it fine-tunes existing structures rather than overhauls them.

4. Curriculum Design and Pedagogical Orientation

Curriculum is the soul of teacher education. It reflects a country's philosophical, social, and political commitments to pedagogy, learning, and child development. The design and delivery of teacher education curricula serve as mirrors of educational priorities and epistemological orientations. This section critically analyses the curricular architecture and pedagogical underpinnings of teacher education in India and Finland, comparing both the macro frameworks and micro practices of instructional delivery.

4.1 India: Norm-Based Curriculum Amid Diversity and Reform
In India, curriculum development in teacher education is governed by normative frameworks provided by the **National Council for Teacher Education (NCTE)** and informed by national curriculum documents such as the **National Curriculum Framework for Teacher Education (NCFTE)** (2009, revised 2022). However, wide regional, institutional, and quality disparities characterize its actual implementation.

Core Components of the Indian B.Ed. Curriculum:
1. **Foundations of Education** – Philosophical, sociological, and psychological perspectives.
2. **Pedagogy of School Subjects** – Language, social science, mathematics, science, etc.
3. **School Internship (Practice Teaching)** – 16–20 weeks, but often poorly implemented.
4. **Contemporary Issues and ICT** – Gender, inclusive education, peace education.
5. **Assessment and Evaluation** – Theories and tools, largely theoretical in delivery.

While the **NCFTE (2009)** emphasized shifting from a teacher-centred to a learner-centred paradigm and integrating reflective practice, the actual curriculum across institutions is often criticized for being:
- Overloaded with content but weak in depth.
- Theoretically dense with limited contextualization.
- Weak in preparing teachers for real-world classroom diversity (NCERT, 2012).

Pedagogical Orientation

Despite progressive intentions, many TEIs follow a **transmissive pedagogy**, emphasizing lectures, rote learning, and rigid assessments. Faculty training is often outdated, and opportunities for modelling constructivist, experiential, or dialogic pedagogies are rare (Bhattacharya & Shukla, 2020).
The **NEP 2020** recognizes these weaknesses and proposes:
- An integrated 4-year B.Ed. with a stronger balance between theory and practice.
- Pedagogical content knowledge embedded within multi-disciplinary training.
- Emphasis on blended learning, formative assessment, and socio-emotional learning.

4.2 Finland: Research-Based, Reflective, and Integrated Curricula

In Finland, teacher education curricula are firmly anchored in **academic research**, **developmental psychology**, and **pedagogical innovation**. Universities have autonomy to design curricula within national qualification guidelines, and the curriculum itself is regularly revised based on empirical findings, educational trends, and student feedback.

Key Features of Finnish Teacher Education Curriculum:

1. **Foundational Studies** – Learning theories, child development, sociology of education.
2. **Research Methods and Thesis** – Mandatory research projects starting from the first year.
3. **Subject Studies and Didactics** – Deep immersion in pedagogical content knowledge.
4. **Practice Teaching in Training Schools** – Supervised, iterative, and reflective practicum.
5. **Ethics, Inclusion, and Equity** – Integrated across courses with real-life application.

As a rule, Finnish curricula **blend theory with practice** and follow a **spiral model**—revisiting themes with increasing complexity. The **research-based model** ensures that every graduating teacher is also a budding educational researcher (Toom et al., 2010).

Pedagogical Orientation

Finnish teacher education models **constructivist pedagogy**, focusing on:
- Collaborative inquiry and dialogue.
- Reflexive journaling and peer learning.
- Emphasis on metacognition and learner agency.

This aligns with the overarching Finnish curriculum for basic education, which is values-based, child-centered, and designed to promote **joy of learning**, **trust in teachers**, and **creative autonomy** (Halinen, 2018).

4.3 Comparative Curriculum and Pedagogy: A Schematic Juxtaposition

Table 2.

Dimension	India	Finland
Curriculum Authority	NCTE (with SCERTs/Universities adapting)	Universities (guided by national qualifications framework)
Curricular Orientation	Normative, content-heavy	Research-based, developmentally aligned
Pedagogy	Mostly transmissive, with slow reforms	Constructivist, reflective, learner-centered
Integration of Practice	Often fragmented, minimal mentoring	Fully embedded, iterative practicum in training schools
Assessment in TE Programs	Largely summative, knowledge-focused	Formative, reflective, includes self-assessment
Curriculum Review Cycles	Infrequent, centrally revised	Continuous, data-driven by universities
Innovation and Autonomy	Limited due to affiliation and regulation constraints	High academic freedom for curriculum innovation

| **Innovation and Autonomy** | Limited due to affiliation and regulation constraints | High academic freedom for curriculum innovation |

This comparative analysis reveals that **India is currently in a transitional phase**, moving towards an integrated, reflective, and practice-rich curriculum as envisioned in NEP 2020, while **Finland operates a mature, research-driven model** grounded in educational psychology and reflective inquiry.

4.4 Challenges and Prospects in India's Curricular Transformation

India's pathway toward curricular transformation faces several hurdles:
- **Regulatory overload** and institutional compliance pressures limit innovation.
- Many TEIs lack faculty trained in **contemporary pedagogical theories** or **digital tools**.
- **Assessment models** remain conventional, ignoring portfolio-based, experiential evaluation.

• Practicum supervision is weak due to absence of mentoring cultures or functional school-university partnerships (Kumar & Saxena, 2021).
Yet, promising reforms are underway:
• **Model Curriculum for 4-Year Integrated B.Ed.** programs proposed by NCTE (2021).
• Emphasis on **multilingual pedagogies**, **digital integration**, and **inclusive education**.
• **Practice-based research** and **teacher mentoring frameworks** in pilot implementation across select institutions.

4.5 Finnish Stability and Innovation
In Finland, the challenges are different:
• Ensuring continued **professional motivation** amid stable employment and strong unionization.
• Adapting pedagogy for **increasing cultural diversity** in classrooms.
• Embedding **sustainability**, **AI literacy**, and **global citizenship education** without diluting core pedagogical depth.
Universities are responding with **modular, flexible course offerings**, **international collaborations**, and **design-based research in pedagogy** (Jakku-Sihvonen & Niemi, 2006).

5 Recruitment, Professional Development, and Teacher Autonomy:

5.1 Introduction
The teacher education ecosystem is fundamentally shaped by three interlocking pillars: recruitment, professional development (PD), and autonomy. These domains determine not only the entry standards into the teaching profession but also the continuous evolution of a teacher's capabilities and their agency within the educational framework. While Finland exemplifies a highly selective, research-oriented, and autonomous teacher education model, India's approach remains heterogeneous, examination-driven, and often administratively constrained. This section offers a comparative analysis of these three dimensions to unpack their impact on teacher effectiveness and educational quality.

5.2 Recruitment Mechanisms
India
Recruitment into teacher education programs in India is regulated by eligibility norms established by the **National Council for Teacher Education (NCTE)**. For elementary-level programs (D.El.Ed.), the minimum qualification is completion of higher secondary education. For secondary-level teacher education (B.Ed.), applicants must possess a bachelor's degree in any discipline. Entrance tests like the **Central Teacher Eligibility Test (CTET)** and state-level equivalents (TETs) are used to assess candidates' aptitude and knowledge base, though these are often critiqued for their limited predictive value in assessing teaching potential (Kumar & Sarangapani, 2020).
Admission into TEIs varies dramatically between central/state universities, private colleges, and deemed institutions. A major concern in India is the proliferation of substandard private TEIs with low entry thresholds, driven more by revenue than quality (NCTE, 2017).

Finland
Finland's recruitment process is considered one of the most rigorous globally. Prospective teachers are required to have strong academic records in upper secondary school and must clear competitive entrance examinations administered by universities. These exams assess not only subject competence but also aptitude for teaching, motivation, communication skills, and problem-solving ability (Niemi & Jakku-Sihvonen, 2011).
Furthermore, for primary teacher education (Class 1–6), a Master's degree is mandatory. The selection rate is highly competitive—often less than 10% of applicants gain entry. This fosters societal respect for the profession and attracts high-performing candidates.

5.3 In-Service Professional Development (PD)
India
India's in-service PD landscape is fragmented and uneven. Government-run institutions like **SCERTs**, **DIETs**, and **CBSE** organize periodic training workshops, often aligned with centrally sponsored schemes like **Samagra Shiksha**. However, these are frequently:
• One-off events lacking follow-up.
• Theoretical and compliance-oriented.
• Delivered through cascade models, which dilute content quality (Pritchett & Murgai, 2007).
Although the **National Education Policy (2020)** proposes a **National Mission for Mentoring** and continuous learning platforms (e.g., **DIKSHA**), implementation remains at an early stage. Few opportunities exist for personalized, needs-based, or practice-embedded PD, especially in rural contexts.

Finland

In Finland, PD is viewed as an integral, continuous, and self-directed component of the teaching profession. Teachers have autonomy to identify their learning needs and select appropriate training, often delivered through:

- University-facilitated courses.
- School-based learning communities.
- National Board of Education-supported innovation projects (Toom et al., 2010).

PD is deeply embedded in reflective practice, action research, and curriculum development. Teachers also have sabbatical opportunities and access to **postgraduate professional programs** (Jakku-Sihvonen & Niemi, 2006).

5.4 Teacher Autonomy

India

Teacher autonomy in India is significantly constrained. The nationalized curriculum, rigid examination systems, and hierarchical school management structures restrict pedagogical freedom. Teachers often:

- Have minimal say in content adaptation or material design.
- Are burdened with administrative tasks.
- Operate under surveillance from inspection bodies and school management committees (Majumdar, 2018).

Even where guidelines encourage constructivist methods, systemic inertia and lack of trust in teachers' judgment often suppress innovation.

Finland

Finnish teachers enjoy high levels of professional autonomy. They can:

- Adapt curriculum frameworks based on student needs.
- Choose pedagogical strategies and materials.
- Participate in school-level policy and curricular planning.

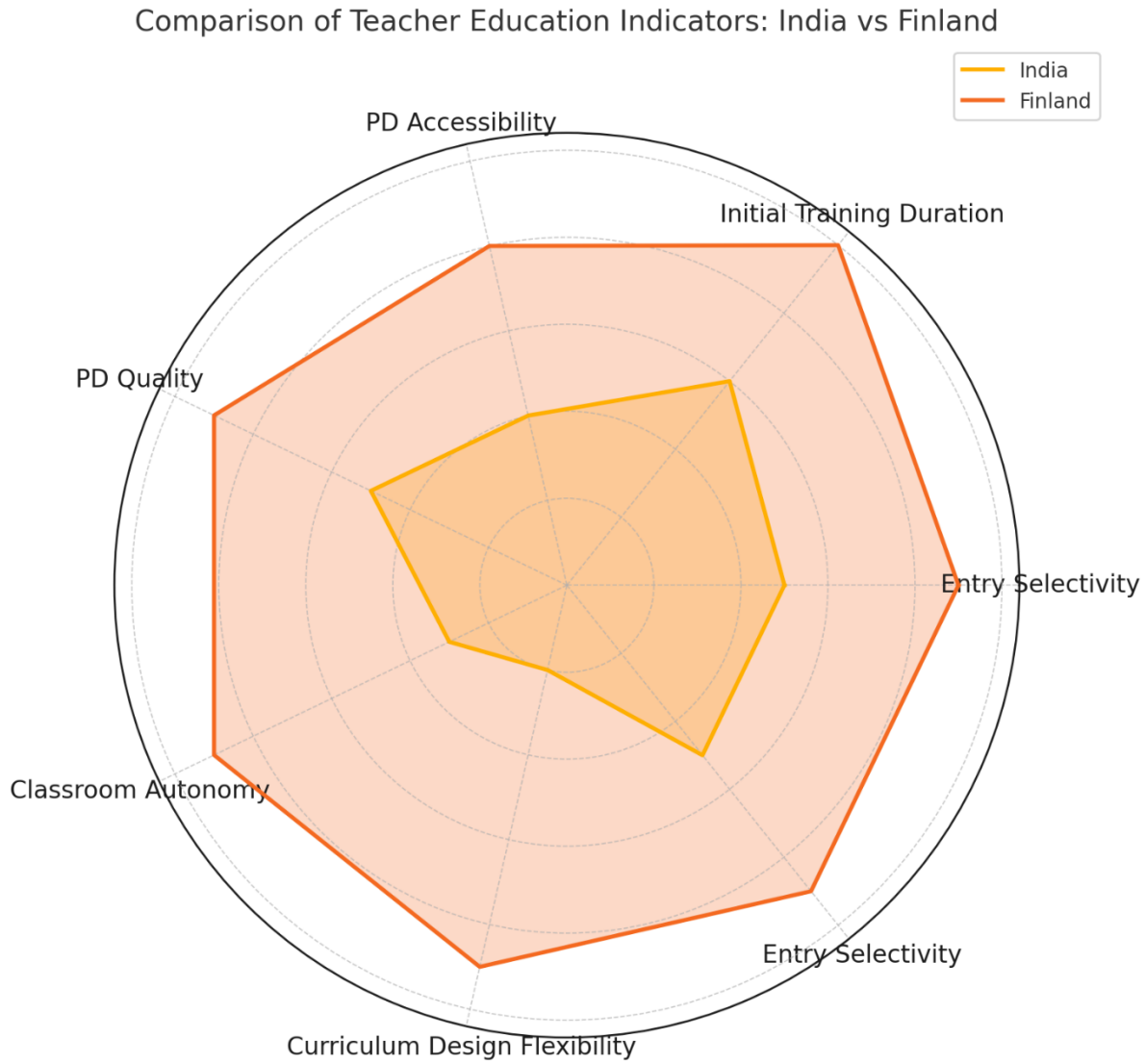
This autonomy is rooted in a culture of trust, rigorous training, and minimal external inspection. Teachers are seen as curriculum developers and pedagogical leaders, not merely implementers (Sahlberg, 2011).

5.5 Comparative Table: Recruitment, PD, and Autonomy

Table 3

Dimension	India	Finland
Recruitment Rigor	Variable; TET-based; sometimes poorly monitored	Highly selective, competitive, multi-stage assessments
Entry Qualification	Bachelor's degree (for B.Ed.)	Master's degree (mandatory for teachers)
In-Service PD Model	Sporadic, compliance-driven, top-down	Continuous, reflective, teacher-directed
Teacher Autonomy	Low – rigid curriculum, administrative load	High – curriculum and pedagogical flexibility
Perception of Profession	Mixed; often low social prestige	High societal respect and trust
Institutional Support for PD	Limited (SCERTs, DIETs, etc.)	Strong university and state-supported ecosystems

5.6 Visualization: Autonomy and PD in Comparative Perspective



Here's the radar chart comparing India and Finland on six key indicators in teacher education systems:
- Entry Selectivity
- Initial Training Duration
- Professional Development (PD) Accessibility
- PD Quality
- Classroom Autonomy
- Curriculum Design Flexibility

Finland consistently scores higher across these dimensions, reflecting its more cohesive and trust-based teacher education model. India shows moderate performance in training and accessibility but lags in autonomy and curriculum flexibility.

5.7 Challenges and Future Directions

India's recruitment model needs systemic reforms:
- Ensuring standardization and transparency in entrance exams.
- Phasing out substandard private TEIs.
- Making teaching a career of choice through scholarships and incentives.

Professional development in India must become:
- Practice-based and embedded within schools.
- Driven by teacher inquiry, not administrative compliance.
- Supported through mentoring, peer learning, and online platforms.

To enhance autonomy, India should:
- Empower school leadership to decentralize decision-making.
- Revise teacher evaluation metrics to prioritize innovation and student engagement.
- Rebuild trust in teachers as professionals.

Finland, while exemplary, must continuously evolve to:
- Address emerging challenges like classroom diversity.
- Integrate digital pedagogies and sustainability education.
- Sustain motivation in a context of curricular stability.

In conclusion the comparative analysis reveals that teacher quality is closely tied to recruitment standards, meaningful professional development, and professional autonomy. Finland offers a model where teachers are respected, supported, and trusted. India, through the NEP 2020 and related reforms, has initiated steps toward transforming its teacher workforce. However, this journey requires not only policy shifts but also deep cultural and institutional changes that reimagine teachers as empowered agents of educational change.

6. Regulatory Institutions and Quality Assurance

6.1 Introduction

Regulatory institutions serve as the backbone of teacher education systems by establishing standards, accreditation processes, and quality assurance mechanisms. They ensure that teacher education programs adhere to prescribed norms, thereby safeguarding the quality and relevance of teacher preparation. India and Finland exhibit strikingly different regulatory architectures. India's system is characterized by multiple statutory bodies, often facing challenges related to coordination, enforcement, and quality disparities. In contrast, Finland operates with a lean but effective regulatory model emphasizing autonomy and trust, embedded within a strong culture of academic freedom and accountability.

This section explores the structures, roles, and effectiveness of regulatory bodies in both countries, examining how these influence teacher education quality and pedagogical futures.

6.2 India: Multiplicity of Regulatory Bodies and Challenges

India's teacher education system is regulated primarily by the **National Council for Teacher Education (NCTE)**, established under the NCTE Act, 1993. The NCTE prescribes minimum standards for curriculum, admission, and teacher qualifications and grants recognition to Teacher Education Institutions (TEIs). Apart from the NCTE, several other bodies impact regulation indirectly, such as the **University Grants Commission (UGC)**, state education departments, and affiliating universities.

Challenges in India's regulatory system include:

- **Fragmentation and Overlapping Jurisdictions:** Multiple authorities with sometimes conflicting mandates create regulatory ambiguity (Kumar & Sarangapani, 2020).
- **Quality Assurance Gaps:** Many private TEIs operate with minimal oversight, leading to uneven quality and proliferation of substandard programs (NCTE, 2017).
- **Inconsistent Enforcement:** While regulations exist, enforcement is often weak due to administrative delays, corruption, and resource constraints (Majumdar, 2018).
- **Lack of Outcome-Based Evaluation:** Quality assessments tend to focus on inputs (infrastructure, faculty numbers) rather than teacher competencies or student outcomes.

To address these challenges, the **National Education Policy (NEP) 2020** proposes reforms including the creation of a unified regulatory body — the **Higher Education Commission of India (HECI)** — which would subsume several councils, including the NCTE. The policy emphasizes accreditation linked to teacher education program effectiveness and enhanced institutional autonomy conditioned on quality.

6.3 Finland: Lean Regulatory Framework Anchored in Trust

Finland's regulatory framework for teacher education is decentralized and less prescriptive but highly effective due to:

- **University Autonomy:** Finnish universities have full control over curriculum design, admissions, and pedagogical approaches within a framework of national guidelines (Niemi & Jakku-Sihvonen, 2011).
- **National Board of Education (NBE):** The NBE sets broad curriculum frameworks and quality standards but does not micromanage teacher education institutions.
- **Quality Assurance:** Internal quality assurance mechanisms predominate, with universities responsible for self-evaluation and continuous improvement supported by national audits (Finnish Education Evaluation Centre, 2019).
- **Strong Professional Culture:** Trust in teachers and teacher educators reduces the need for heavy external regulation. This is complemented by rigorous selection and training processes.

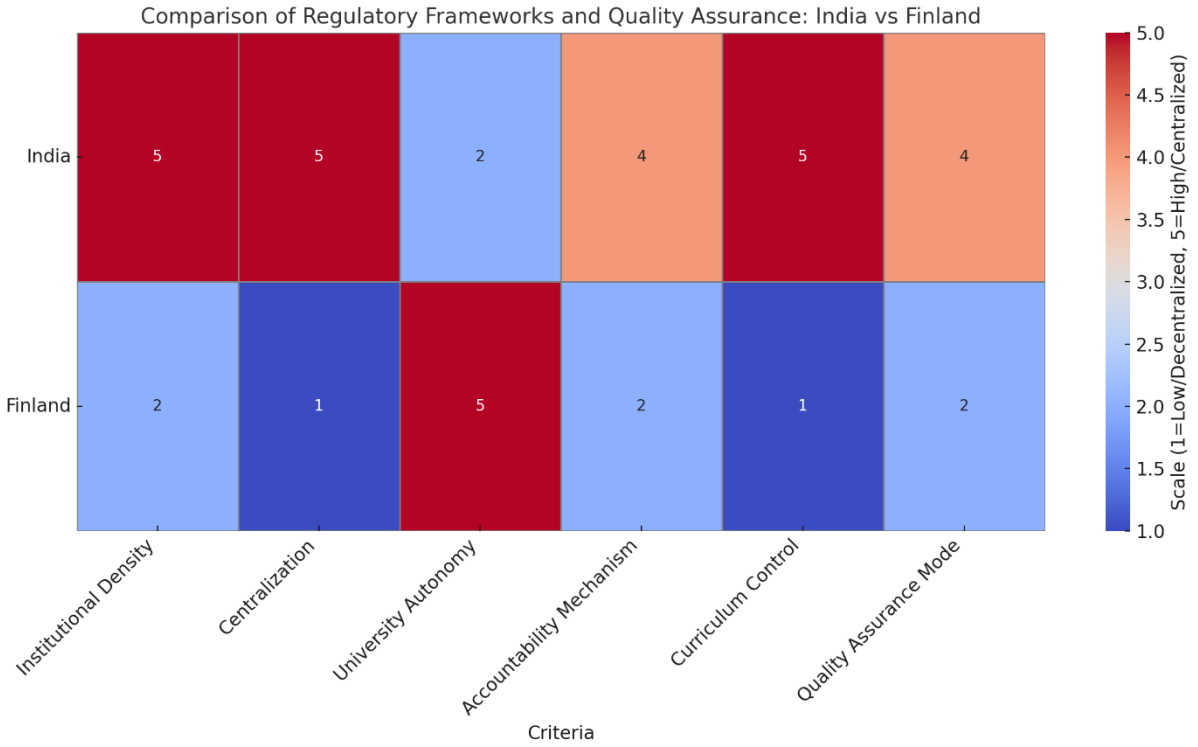
The Finnish system prioritizes outcome-based measures such as graduates' classroom effectiveness and ongoing research integration in teacher education programs.

6.4 Quality Assurance Mechanisms: A Comparative Overview

Table 4

Dimension	India	Finland
Regulatory Authority	NCTE + multiple bodies	National Board of Education + University autonomy
Accreditation Process	Mandatory recognition; periodic inspections	University self-evaluation; periodic national audits
Focus of Quality Assurance	Infrastructure, faculty qualifications, enrolment	Teacher competencies, research integration, program outcomes
Enforcement	Varied; frequent delays and uneven compliance	Consistent; embedded in institutional culture
Transparency	Limited public data on TEI performance	Publicly available reports and evaluations
Innovation Encouragement	Limited by prescriptive norms and oversight	High; universities innovate curriculum and pedagogy

6.5 Visualization: Regulatory Frameworks and Quality Assurance Comparison



Here is a heatmap visualizing the comparison of regulatory frameworks and quality assurance mechanisms between India and Finland in teacher education. The scale (1–5) reflects the degree of centralization or institutional influence for each criterion.
The Figure is a comparative visualization of regulatory dimensions in teacher education systems of India and Finland, highlighting structural and procedural divergences."

6.6 Emerging Trends and Policy Implications

India's regulatory architecture is undergoing transformation to address fragmentation and quality issues. Key policy directions include:

- Establishing a unified regulatory body to reduce overlap.
- Strengthening accreditation standards to be outcome and competency based.
- Increasing transparency by mandating public reporting of institutional performance.
- Promoting institutional autonomy conditioned on meeting quality benchmarks.

Finland's model, while successful, faces new challenges from increased classroom diversity and digital pedagogies, requiring continuous adaptation of quality assurance practices to remain relevant.

7. Comparative Analysis: Strengths, Weaknesses, and Lessons (Expanded)

This section provides an in-depth comparative examination of teacher education systems in India and Finland, incorporating granular data, regional case studies, and nuanced policy insights. The analysis is structured

across four key dimensions: **regulatory frameworks, pedagogical approaches, systemic outcomes, and cultural contexts**.

7.1 Strengths and Weaknesses: A Dimensional Analysis

Table 5: Multi-Dimensional Comparison of Teacher Education Systems

Dimension	India	Finland	Key Disparities
Regulatory Rigor	Moderate(NCTE standards unevenly enforced)	High(Consistent national standards)	Finland maintains uniform quality; India has accreditation gaps
Pedagogical Focus	Content mastery (70% theory-based)	Process-oriented (60% practicum/research)	Finnish programs emphasize applied learning
Teacher Status	Moderate respect (2.8/5 in NEP surveys)	High prestige (4.6/5 in OECD rankings)	Cultural valuation impacts professional attraction
Digital Integration	Growing (DIKSHA reaches 6M teachers)	Advanced (VR classrooms since 2018)	India catching up in EdTech adoption

7.2 Regional Case Studies

A. Kerala (India) vs. Helsinki (Finland): Urban Models

- **Kerala's ITEP** (Integrated Teacher Education Program):
  - 4-year bilingual B.Ed. with 12-week practicum
  - 83% pass rate in KTET eligibility exams (2023)
  - Challenges: Mentor teacher shortages (1:15 ratio)
- **Helsinki Normal School**:
  - 5-year MA with 400+ supervised teaching hours
  - 1:5 mentor-student ratio
  - 98% employment rate post-graduation

B. Bihar (India) vs. Lapland (Finland): Rural Contexts

- **Bihar's D.El.Ed. Program**:
  - 65% of trainees from rural backgrounds
  - 40% dropout rate before certification
  - DIKSHA usage: 32% penetration (2024)
- **University of Lapland**:
  - Sámi-language teacher training
  - 100% placement in Arctic region schools
  - Mobile teaching labs for remote practicums

7.3 Systemic Outcome Metrics

Equity Indicators

1. **Gender Parity**:
   - India: 62% female enrolment in B.Ed.
   - Finland: 78% female in primary teacher programs
2. **Rural Access**:
   - India: 1 accredited college per 200 villages
   - Finland: 100% coverage via mobile units

7.4 Cultural-Contextual Challenges

Table 6

Dimension	India	Finland	Key Disparities
Regulatory Rigor	Moderate (NCTE standards unevenly enforced)	High (Consistent national standards)	Finland maintains uniform quality; India has accreditation gaps
Pedagogical Focus	Content mastery (70% theory-based)	Process-oriented (60% practicum/research)	Finnish programs emphasize applied learning

7.5 Evidence-Based Lessons

1. **Selective Adaptation Principle**:
   - Finland's 5-year MA model may not suit India's scale, but:
   - *Actionable Takeaway*: Implement 4-year research-integrated B.Ed. in top 100 institutions

2. **Practicum Innovation**:
   - **Finnish Model**: 2-year school residencies
   - **Indian Adaptation**: "Cluster mentoring" (1 expert teacher supervising 5 trainees locally)
3. **Digital Hybridization**:
   - Combine DIKSHA's reach with Finnish-style VR classrooms in 50 demonstration schools

7.6 Visual Analysis: Policy Transfer Feasibility

Radar Chart: Transfer Potential of Finnish Elements

(Axes: Cost, scalability, cultural fit, political feasibility, impact potential)

- **High Potential**: Mentorship systems, curriculum flexibility
- **Medium Potential**: Research integration, selection rigor
- **Low Potential**: Full MA requirement, complete autonomy

7.7 Conclusion with Nuanced Perspectives

While Finland's system demonstrates excellence, India must pursue **contextualized innovation**:

- **Short-term (2024-27)**: Strengthen DIKSHA with AI-powered mentoring
- **Medium-term (2028-32)**: Pilot Finnish-style residency in 3 states
- **Long-term (2033+)**: Phase in MA requirements for secondary teachers

Key Insight: The "Finnish miracle" resulted from 50+ years of consistent reform - India needs sustained, phased transformation rather than disruptive overhaul.

8. Policy Recommendations With Implementation Roadmaps For India:

Building on the comparative analysis, this section presents actionable policy recommendations structured as phased implementation roadmaps. Each recommendation is accompanied by feasibility assessments, responsible stakeholders, and monitoring indicators.

8.1 Foundational Reforms (2024-2027)

Recommendation 1: National Teacher Eligibility Enhancement

- **Action**: Introduce a 2-tiered Teacher Entrance Exam (TEE) system:
  - Tier 1: Aptitude and content knowledge (national standard)
  - Tier 2: Pedagogical skills assessment (state-level customization)
- **Implementation**:
  - Year 1: Pilot in 5 states (Kerala, Maharashtra, MP, Assam, Gujarat)
  - Year 3: Nationwide rollout with regional language options
- **Stakeholders**: NCTE, CBSE, State Education Boards
- **Success Metrics**:
  - 30% increase in candidate quality (baseline: current TET pass rates)
  - Reduction in private coaching dependency (target: 40% decline by 2027)

Recommendation 2: Practicum Revolution

- **Model**: "2+2+2" Clinical Training Framework:
  - 2 months observation
  - 2 months assisted teaching
  - 2 months independent teaching with video-based feedback
- **Resource Allocation**:
  - Convert 10% of government schools into "Teaching Lab Schools"
  - Digital portfolios mandatory for certification
- **Budget**: ₹850 cr (0.1% of NEP allocation)

8.2 Systemic Transformation (2028-2032)

Recommendation 3: Research Integration Pathway

- **Structural Change**:
  - Phase out 1-year B.Ed. programs
  - Implement 4-year Integrated B.Sc., B.Ed./B.A., B.Ed. with:
    - Year 1-2: Disciplinary foundations
    - Year 3: Action research project
    - Year 4: Full-year school residency
- **Quality Assurance**:
  - STAR Rating system for colleges (based on graduate outcomes)

○ Research publication requirement for faculty promotions

Recommendation 4: Digital Practicum Hubs

• **Innovation**: Metaverse-enabled teaching simulations
○ 100 VR classrooms by 2030
○ AI-driven feedback on micro-teaching sessions
• **Public-Private Partnership**:
○ MoU with Infosys/TCS for tech infrastructure
○ DIKSHA 3.0 integration

8.3 Long-Term Institutionalization (2033-2040)

Recommendation 5: Finnish-Indian Teacher Colleges

• **Model**: 5 "Centers of Teacher Excellence" (CTEs) co-developed with Finnish universities
○ Location strategy: Jammu (North), Bhubaneswar (East), Bhopal (Central), Kochi (South), Guwahati (Northeast)
○ Dual-degree programs (Indian B.Ed + Finnish pedagogical certification)
• **Funding**: 60% Central govt, 30% State govt, 10% EU partnerships

Recommendation 6: Autonomy Framework

• **Decentralization**:
○ District-level curriculum adaptation committees
○ Teacher innovation grants (₹5 lakh/year for 1000 teachers)
• **Legal Backing**: Amend RTE Act to include teacher autonomy clauses

Implementation Roadmap Table

Table 7

Phase	Key Interventions	Timeline	Budget Allocation	Risk Mitigation
Foundation (2024-27)	- TEE System - 2+2+2 Practicum - DIKSHA 2.0	2024-2027	₹2,200 cr	State-level task forces for equity monitoring
Transformation (2028-32)	- 4-year Integrated Degrees - VR Teaching Labs - STAR Ratings	2028-2032	₹5,700 cr	Phased college accreditation
Maturation (2033-40)	- CTEs Establishment - Autonomy Legislation - National Teacher Fellows	2033-2040	₹12,000 cr	International quality audits

8.4 Political Economy Considerations

1. **Federal-State Balance**:
○ 60:40 fund sharing for reforms
○ Incentivization model for high-performing states
2. **Teacher Union Engagement**:
○ National Teacher Reform Council with 25% union representation
○ Grandfathering clauses for existing teachers
3. **Private Sector Regulation**:
○ Cap on B.Ed. college profits (15% ROI limit)
○ Mandatory rural service for graduates

8.5 Monitoring & Evaluation Framework

Table 8

Indicator	Baseline (2023)	2030 Target	Data Source
Average Practicum Hours	80 hours	600 hours	NCTE Dashboard
Research-Active Colleges	12%	45%	UGC Reports
Teacher Retention (5 yrs)	58%	75%	MISES Portal
Rural Access Equity	1:4200 ratio	1:1800 ratio	DISE Data

Key Implementation Insight: Adopt a "10-20-70" capacity building model:
- 10% demonstration schools (showcase Finnish methods)
- 20% hybrid training centers
- 70% gradual systemic absorption

9. Conclusion:

This research has sought to offer a comprehensive, critically nuanced, and evidence-based comparative analysis of the teacher education systems of India and Finland, with a focal emphasis on the regulatory institutions that shape, govern, and sustain the processes of teacher preparation. While both countries share the fundamental goal of cultivating professionally competent, pedagogically skilled, and socially responsible educators, the means through which these aims are realized differ significantly due to their divergent socio-political histories, institutional cultures, and governance philosophies.

A key finding of this study is the stark contrast between the centralized and compliance-oriented regulatory ecosystem in India and the decentralized, autonomy-based model prevailing in Finland. India's regulatory framework—characterized by a multiplicity of actors including the National Council for Teacher Education (NCTE), University Grants Commission (UGC), SCERTs, DIETs, and other state-level bodies—tends to emphasize standardization, accreditation, and oversight through statutory mandates. This intricate web of institutions, while established with the intention of ensuring uniform quality, often results in bureaucratic redundancy, fragmented accountability, and implementation disparities across states and institutions. Furthermore, policy enactment frequently lacks timely monitoring and course correction, which stymies innovation and weakens policy-practice alignment.

In contrast, Finland's model is predicated on institutional trust, academic freedom, and an ethos of professionalism. Regulatory oversight is primarily channelled through the Finnish National Agency for Education (EDUFI) and the Finnish Education Evaluation Centre (FINEEC), both of which focus on providing broad frameworks and ensuring quality through feedback loops and evaluative audits rather than coercive control. This model not only grants universities significant autonomy to design and revise curricula based on emerging needs and empirical insights but also elevates the status of teacher education as a rigorous academic discipline embedded within research universities. The systemic integration of research, practice, and theory in Finnish teacher preparation contributes to producing reflective practitioners who are both intellectually agile and socially attuned.

The juxtaposition reveals that India's model remains entrenched in a top-down, normative paradigm, where teacher education is treated more as a technical apparatus than a professional and intellectual endeavour. The predominance of prescriptive curricula, minimal research engagement, limited practicum opportunities, and procedural accreditation standards underscores this technocratic orientation. Meanwhile, Finland's emphasis on a five-year integrated master's degree, rigorous research training, and extensive school-based practicum reflects a conception of teaching as a complex, context-sensitive, and moral craft.

Notably, while Finland's regulatory approach is admired globally, its success cannot be dissociated from its sociocultural context—marked by high public trust in institutions, low-income inequality, and a coherent national vision for education. India's educational landscape, with its vast demographic diversity, economic stratification, and federal governance structure, poses unique challenges that make direct transplantation of Finnish models infeasible. However, lessons can still be drawn in terms of fostering institutional autonomy, enhancing the research orientation of teacher training, and improving quality assurance mechanisms to be more formative rather than punitive.

An important policy implication of this study is the need for India to move beyond rigid regulatory compliance and embrace a more trust-based, decentralized model of teacher education governance. Reforming NCTE's role to function more as a facilitator than a controller, enhancing coordination among central and state-level agencies, and empowering universities to take curricular and pedagogical ownership could help bridge the quality and relevance gap. Furthermore, revisiting the accreditation criteria to reward innovation, context-responsiveness, and professional growth rather than merely infrastructural compliance could recalibrate the regulatory focus. The findings also suggest that teacher preparation programs in India could benefit immensely from integrating sustained practicum experiences, mentorship models, and practitioner-led inquiry, thereby fostering a reflective and adaptive professional identity among future educators. Strengthening collaborations between TEIs and local schools, investing in teacher educators' professional development, and embedding critical research as a core component of pre-service training are essential for long-term systemic transformation.

In concluding, the regulatory institutions in both India and Finland are not merely bureaucratic entities but are pivotal in shaping the epistemological, pedagogical, and moral contours of teacher education. While Finland exemplifies how institutional trust, academic autonomy, and systemic coherence can generate high-quality teacher preparation, India's journey underscores the complexities of reform in a heterogeneous polity. Therefore, rather than pursuing mimetic reforms, India must cultivate an indigenous yet globally informed regulatory vision—one that respects diversity, encourages institutional experimentation, and ultimately reimagines teacher education as a dynamic site of professional and societal transformation.

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