



Revolutionizing Higher Education in India

This editorial is based on “[Rising STEM research demands revitalized education](#)” which was published in The Hindu on 06/11/2024. The article brings into picture the quality paradox in India’s higher education system: despite increased access, graduate quality suffers due to an emphasis on research over teaching. Experts suggest refocusing on teaching quality and fostering research-teaching partnerships to address this gap.

For Prelims: [India's higher education system](#), [National Initiative for School Heads’ and Teachers’ Holistic Advancement](#), [PARAKH \(Performance Assessment, Review, and Analysis of Knowledge for Holistic Development\)](#), [National Education Policy 2020](#), [Institutions of Eminence \(IoE\) Scheme](#), [SWAYAM](#), [National Assessment and Accreditation Council](#), [University Grants Commission](#), [Eklavya Model Residential Schools](#)

For Mains: Recent Indian Government Initiatives Related to Higher Education System, Reasons for Underperformance of Indian Higher Education System.

[India's higher education system](#) is grappling with a significant challenge: **a mismatch between the skills of graduates and the demands of industry and research**. Despite the proliferation of new institutions, the quality of education, particularly in undergraduate programs, remains a concern. To address this issue, a more focused approach is needed including increased emphasis on pedagogical skills, and collaboration between research and teaching institutions.

Why is the Indian Higher Education System Underperforming Despite Recent Reforms?

- **Quality-Scale Tradeoff:** The rapid expansion of India's higher education system has **prioritized quantity over quality**, leading to diluted academic standards and inadequate infrastructure.
 - Most private institutions focus on **profit maximization rather than academic excellence**, resulting in subpar teaching and learning outcomes.
 - The regulatory framework has failed to ensure quality control during this expansion phase, creating a generation of unemployable graduates.
 - India has 1,043 universities and 42,343 colleges listed on the portal of the [All India Survey on Higher Education](#) but according to [National Assessment and Accreditation Council \(NAAC\)](#) approximately **30% of universities and colleges nationwide remain unaccredited, in violation of the National Education Policy (NEP) 2020**.
 - Also, quality trade off is quite visible in engineering grades with **only 45% meeting industry standards**.
- **Research Output and Innovation Gap:** Indian higher education institutions suffer from a **severe lack of research culture**, with minimal funding and infrastructure for meaningful

research.

- The pressure to **publish has led to quantity over quality**, with many papers appearing in predatory journals rather than respected publications.
 - The focus on teaching duties leaves faculty with little time for substantial research pursuits.
- India's research spending stands at just **0.7% of GDP**, compared to **China's 2.4% and the US's 3.5%**.
- In 2023, India had **467,918 patent filings**, trailing behind China with **around 7.7 million filings** and the United States with **945,571**.
- **Faculty Crisis:** The Indian higher education system faces a critical shortage of qualified faculty members, with **many positions remaining vacant for years**.
 - The existing faculty often lacks proper training, research exposure, and industry experience necessary for modern education delivery.
 - The **bureaucratic hiring process and inadequate compensation packages** deter talented individuals from choosing academic careers.
 - Over **30% of teaching positions are lying vacant in 45 Central Universities** across India.
- **Industry-Academia Disconnect:** University curricula remain largely theoretical and outdated, **failing to meet contemporary industry requirements** and technological advancements.
 - **Most institutions operate in isolation from industry**, with minimal practical exposure or real-world problem-solving opportunities for students.
 - The lack of industry collaboration results in graduates who need extensive retraining before becoming productive in their jobs.
 - **Global Skills Gaps Measurement and Monitoring Report of ILO 2023** indicates that **47% of Indian workers**, especially 62% of females are underqualified for their jobs.
- **Funding Constraints:** Public funding for higher education remains inadequate, **forcing institutions to compromise on infrastructure, research facilities, and faculty quality**.
 - State universities particularly suffer from chronic underfunding, leading to **deteriorating infrastructure and academic standards**. The funding model relies heavily on **student fees**, making quality education increasingly unaffordable for many.
 - The allocation towards Higher Education in 2024-25 is estimated to **decrease by 17% from** than the **revised estimate for 2023-24**. Allocation towards the **University Grants Commission (UGC)** is estimated to **reduce by 61%**. (PRS)
- **Digital Divide in Higher Education:** While elite institutions have embraced digital transformation, the majority of universities struggle with **basic digital infrastructure and literacy**.
 - The **Covid-19 pandemic** exposed and widened this digital gap, creating a two-tier education system.
 - A study by the **Azim Premji Foundation in 2021** showed that almost **60% of school children in India** cannot access online learning opportunities.
 - This highlights a significant digital divide in the country, with a large proportion of students lacking access to the internet and digital infrastructure.
- **Mental Health and Student Support:** Universities largely ignore the growing mental health crisis among students, with inadequate counseling and support services.
 - **Academic pressure, career uncertainty, and social expectations** create significant psychological stress.
 - The lack of holistic development programs affects student well-being and academic performance.
 - A report by TimelyMD revealed that **50% of college students in 2023 identified mental health challenges** as their most significant source of stress
- **Entrepreneurship Ecosystem Weakness:** Despite emphasis on startup culture, universities fail to provide adequate entrepreneurship support and incubation facilities.
 - The **current academic environment doesn't nurture innovation and risk-taking abilities**. Limited industry connects restrict mentorship opportunities for student entrepreneurs.
 - The rate of **total early-stage entrepreneurship (TEA)** in India was merely **11.5% in 2022-23**.
- **Language Barriers:** Language barriers in India's higher education system create significant challenges for students, particularly those from rural or non-English-speaking backgrounds.

- This disparity can lead to unequal access to quality education, limiting opportunities for academic success.
- Recently, **Tribal students in Eklavya Model Residential Schools** in Andhra Pradesh were found struggling with language barriers as teachers instructed in Hindi instead of English or Telugu.

What are the Recent Indian Government Initiatives Related to Higher Education System?

- **National Initiative for School Heads' and Teachers' Holistic Advancement (NISHTHA):** This initiative extends training to school heads and teachers across various educational stages, including specialized training for Early Childhood Care and Education (ECCE). Over **32,648 Master Trainers** have been certified as part of this program.
- **PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development):** PARAKH, an autonomous body set up under NEP 2020, aims to standardize and enhance the assessment and evaluation process across all school boards in India. Activities under PARAKH include:
 - The **State Educational Achievement Survey (SEAS)**, which assesses students' learning competencies at different stages.
 - Developing **Competency-based Assessments** and **Holistic Progress Cards (HPCs)** to track students' overall development, including socio-emotional and cognitive aspects.
- **National Education Policy 2020 (NEP 2020):** NEP 2020 has brought about significant changes to the curriculum and educational practices. Key milestones include:
 - The **National Curriculum Framework for Foundational Stage (NCF FS)** and the launch of learning material for **classes I and II** in 2023.
 - The **National Curriculum Framework for School Education (NCF-SE)** released in 2023, which aligns the school curriculum with the NEP, focusing on holistic and competency-based education.
 - **Budget 2024-25** announces **new scheme offering loans** up to ₹10 lakh for one lakh students to pursue higher education
- **Institutions of Eminence (IoE) Scheme:** Launched by the **Ministry of Education in 2018**, the IoE scheme aimed to identify 20 institutions and grant them complete autonomy to promote academic excellence and innovation.
- **Digital Initiatives**
 - **SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds):** A digital platform offering a range of online courses, from school to postgraduate levels, to support active learning.
 - **National Digital Library of India:** Provides easy access to a vast collection of educational resources, aiding students and educators across the country.

What Measures can India Adopt to Strengthen its Higher Education System?

- **Industry-Academia Integration Framework:** Create **mandatory industry sabbaticals for faculty members** every three years to maintain industry relevance.
 - Establish **industry-specific curriculum advisory boards** with rotating membership from leading companies.
 - Develop **credit-based systems for students' industry projects and internships** as mandatory graduation requirements.
 - Create **joint research and development centers within universities** funded by industry partners. Implement an **industry professional-in-residence program** where experts teach specialized courses.
- **Pedagogical Transformation Initiative:** Introduce **mandatory pedagogical training certification** for all faculty members through a standardized national program.
 - Establish **Centers of Teaching Excellence** in each state to train faculty in modern teaching methodologies, including **experiential and project-based learning**.
 - Mandate **regular teaching effectiveness assessments** through student feedback, peer reviews, and outcome analysis.
- **Quality Assurance Reformation:** Implement a **continuous assessment system replacing**

periodic accreditation with real-time quality monitoring.

- Create **specialized quality circles** within institutions with representation from all stakeholders.
- Develop **outcome-based assessment frameworks** focusing on employability and skill development.
- Implement AI-based analysis of institutional performance metrics for early intervention.

▪ **Student Support and Development:** Establish mandatory **career development cells with professional counselors and industry liaisons**.

- Create **mental health support systems** with full-time counselors and wellness programs.
- Develop soft skills and leadership development programs integrated into the curriculum. Create student innovation labs with funding support for entrepreneurial initiatives.

▪ **International Collaboration Framework:** Establish **joint degree programs** with reputed foreign universities with mutual credit recognition.

- Create **international faculty exchange programs** with simplified visa and work permit processes.
- Develop **global research partnerships with shared funding and resources**.

▪ **Regional Language Integration:** Develop **high-quality academic content in regional languages using AI-powered translation tools**.

- Create **bilingual learning programs** with technical terminology banks in regional languages.
- Establish **regional language research journals** with international indexing.
- Implement translation support systems for academic resources and research papers.

▪ **Skill Development Integration:** Create modular skill certification programs aligned with **industry requirements**.

- Establish **skill labs with industry-standard equipment** and training facilities.
- Implement **credit transfer systems between vocational and academic programs**.
- Develop continuous skill assessment and upgrade programs for students and faculty.

What can India Learn from Global Higher Education Models?

- **Finland's Trust-Based Model:** Finland's higher education system is known for its **high autonomy and trust-based approach**, eliminating standardized testing in favor of continuous assessment.
- **Singapore's Industry-Education Integration:** Singapore has created a model where the **government fosters strong collaboration between academia and industry**, benefiting both sectors.
 - From undergraduate level to Corp Labs at institutions, this integration has **improved graduate employment outcomes**, boosted workforce productivity, and supported economic growth.
- **Germany's Dual Education System:** Germany **combines theoretical learning with practical apprenticeships through its dual system**.
- **Israel's Entrepreneurial University Model:** Israeli universities **excel in turning academic research into commercial innovations**.
 - With strong ties to the **defense sector**, universities focus on interdisciplinary learning, entrepreneurship, and technology transfer offices.
- **Netherlands' Problem-Based Learning:** The Netherlands uses **problem-based learning**, where students tackle real-world challenges in small groups.
 - The country has a **"Binary System"** that distinguishes between research universities and applied sciences.
- **China's Rapid Transformation Model:** China's **"Double First Class"** initiative has rapidly transformed its higher education, focusing on research excellence and STEM education.
 - Universities benefit from **strong public-private partnerships** and international collaborations. China leads in **digital infrastructure and smart campuses**.

Conclusion:

India's higher education system needs a comprehensive overhaul to address its quality crisis. **Prioritizing teaching excellence, fostering industry-academia partnerships, and investing in research infrastructure** are crucial steps. By learning from global best practices and implementing innovative reforms, India can create a world-class higher education system that empowers its students and drives economic growth.

Drishti Mains Question:

Evaluate the current challenges faced by India's higher education system and suggest measures to enhance its global competitiveness and inclusivity

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. Which of the following provisions of the Constitution does India have a bearing on Education? (2012)

1. Directive Principles of State Policy
2. Rural and Urban Local Bodies
3. Fifth Schedule
4. Sixth Schedule
5. Seventh Schedule

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 3, 4 and 5 only
- (c) 1, 2 and 5 only
- (d) 1, 2, 3, 4 and 5

Ans- (d)

Mains

Q1. How have digital initiatives in India contributed to the functioning of the education system in the country? Elaborate on your answer. (2020)

Q2. Discuss the main objectives of Population Education and point out the measures to achieve them in India in detail. (2021)