



Learning to probe early

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Why research should be made part of UG curriculum in India

- While addressing the 106th Indian Science Congress, Prime Minister Narendra Modi underscored the need for universities to get involved in research.
- While India has made considerable strides in achieving a near-perfect enrolment rate in primary education, it has failed to give higher education as much attention.
- As a consequence, Gross Enrolment Ratio in higher education is 25.8%, against China's 48.44% and the U.S.'s 88.84%.
- Mr. Modi's address alerts us to major lacunae in the education system that need to be looked at urgently if the higher education system is to meet the demands of today.

The importance of research

- Research remains a significant weakness in India's higher education system, traditionally cocooned in specialised institutes such as the Tata Institute of Fundamental Research (TIFR), the Homi Bhabha Centre for Science Education, and the Indian Institute of Science (IISc).
- Unlike the world's best higher education systems, there is hardly any interaction between these institutes and teaching universities.
- In India, about 80% of the students enrolled in higher education are concentrated in undergraduate (UG) programmes.
- Research and application-oriented education can substantially enhance the quality of UG education.
- Introducing and sustaining the culture of research at this level can also help solve the problem of shortage of faculty, as more students will likely opt for doctoral and post-doctoral studies and teach in their home country.
- In any sound higher education system, research and teaching should ideally go together.

Some strategic steps

- However, given the impediments vis-a vis infrastructure, teachers, funds and content, the government will need to take strategic steps to roll out policies to promote UG research programmes.
- First, investment in education needs to meet the world standard of at least 6% of GDP, to upgrade infrastructure, labs and resources, which are essential to carry out high-quality research.
- Second, the University Grants Commission and other regulatory bodies will have to come out with a priority list of reputable journals.
- This will rid the country of the problem of bogus journals and publications.
- The status quo in education has resulted in education that is not only substandard but also fails to open inquiring minds to the world of research.
- India must be innovative in its approach if its demographic dividend is to be tapped into.
- Otherwise, what PM said will remain a quotable quote.

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