



# High scores, low curiosity

Why Indian students are losing the art of independent thinking

Anubha Singh

**A**cross Indian classrooms today, students are bright, hard working, digitally connected, and ambitious. Yet, many hesitate when asked to think independently, to question, interpret, or connect ideas. The ability to form opinions and reflect critically is the bedrock of true education. Independent thinking, once nurtured through curiosity and reading, is being replaced by instant answers and algorithmic logic. Today's youth are not less capable but their environment has become less conducive to thinking. This is because of several cultural and systemic factors.

**Reading:** Reading diverse books exposes young minds to varied ideas, trains them to interpret, analyse, and question, and helps them form opinions. But many now limit reading to textbooks and exams. They rarely pick up novels, newspapers, or essays that encourage reflection. According to the National Library Board Report (2023), only 25% of Indian adolescents read for enjoyment outside school, a figure far below the global average.

**Exams:** India's education system pressures students to chase marks. Coaching centres train students to score through rote learning, leaving little space for curiosity or creativity. Youngsters learn



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## FUTURE PERFECT

### AI and the human body

Siva Teja Kakileti, Principal Research Scientist at Niramai Health Analytix, on his domain



FUTURE PERFECT

Ananya Ganapathy



**What do you do?**  
I am Siva Teja Kakileti, Principal Research Scientist at Niramai Health Analytix. This is a start-up building non-invasive, AI-driven healthcare solutions for early disease detection.

We combine affordable thermal cameras with advanced AI to analyse temperature maps of the human body without radiation, needles, or discomfort.

For example, ThermaLytx enables breast cancer screening by identifying subtle thermal patterns associated with abnormal tissue activity. My work focusses on developing AI algorithms to assist both doctors and imaging technicians and ensuring reliable performance in real-world clinical settings.

**Why is your work important globally?**

Early diagnostic tools are often invasive, expensive, and dependent on heavy infrastructure, limiting their reach. With over half of the world's population lacking full access to even essential healthcare services, access to organised screening and specialised diagnostic services is limited. As a result, most cancers, including breast cancer, are detected at advanced

stages when treatment is more complex and outcomes are poorer.

Non-invasive AI systems enable early detection through portable, scalable, and low-cost infrastructure, helping shift healthcare from late-stage treatment to preventive or early-stage, improving outcomes at the population level.

**What is exciting about your work?**

What excites me most is uncovering meaningful health signals from thermal data that was once considered clinically irrelevant and mere "noise". Advances in AI now allow us to visualise human physiology in new ways.

More importantly, models must be validated independently across multiple sites and earn the trust of clinicians through safety, transparency, and real-world performance. The most impactful professionals are those who can bridge Engineering, Medicine, and human-centred design, grounded in scientific rigour and patient safety.

**Any experiences in college that led you to be a technologist?**

During my second-year internship at IIT-Hyderabad, I worked on detecting age-related macular

degeneration using 2D OCT images. This gave me first-hand exposure to real clinical challenges and the opportunity to collaborate closely with doctors. I saw how research in Engineering, when aligned with healthcare needs, can directly impact millions of lives. This sparked my interest in medical imaging AI and inspired me to work on developing scalable, non-invasive healthcare solutions.

**What should students specifically know about AI in healthcare?**

AI in healthcare goes far beyond building accurate models. Strong fundamentals in Maths, signal and image processing, and machine learning are essential, along with an understanding of biology, clinical workflows, ethics, and regulatory requirements.

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The writer is an avid follower of emerging technologies and their applications.

Aditya Shanker  
Raghuvanshi

**T**he BITS Admission Test (BITSAT) is the exam for admission to the Birla Institute of Technology and Science (BITS) Pilani. This three-hour computer-based exam has 130 questions drawn from Physics, Chemistry, English, Logical Reasoning, Math or Biology (for B.Pharm). Negative marking makes accuracy essential and discourages random guesses. Those candidates who complete all 130 questions on time are offered 12 questions as a bonus. But, once this round begins, the earlier answers cannot be changed. With this being a high-stakes exam, here are some tips on how to prepare.

**Foundation:** Begin preparation in August. The syllabus is based on the NCERT syllabus for Class 11 and 12, especially for Inorganic Chemistry. While this seems similar to JEE and the Board exams, BITSAT prep is different. JEE

## The BITSAT playbook

Tips for students taking the entrance exam for BITS Pilani



focuses on intricate problem solving. BITSAT prioritises speed and formula-driven problems. In Maths, topics such as coordinate geometry and vectors offer an opportunity to score well. English and Logical Reasoning are often neglected but can be crucial in the final score.

Spend two hours a week on vocabulary, grammar and logical reasoning

problems.

**Strategic planning:** Aspirants require at least 75% overall in Maths, Physics, and Chemistry, with minimum 60% in each. Avoid scheduling the test on the

first and last days. Choose a time slot that aligns with your natural energy levels. If you are not a morning person, steer clear of the early time slots.

**Final phase:** In the final four months, focus on intensive practice and take at least 15 full-length mock tests. Carefully analyse the results in each to fix errors in concepts, calculation, or time-management. On D-day, start with Chemistry, then Physics, followed by English/logical reasoning, and ending with Maths. This is because Chemistry is typically the simplest subject, helping candidates save time for the Maths section. Effective use of the 'skip' feature if a question takes longer than two minutes, and strict time control are crucial.

BITSAT demands thorough preparation, the ability to stay calm under pressure, speed and accuracy. So master your fundamentals and get started.

The writer is Co-founder and CEO of Masterclass Space.

## Beyond fading memory

Why dementia care should be a part of medical and psychology curricula

Neha Sinha

**I**ndia is growing older, fast. By 2036, nearly 230 million Indians will be above 60; a demographic shift that will redefine healthcare priorities. Yet, amid this change, dementia remains one of the least understood and least taught conditions in both medical and psychology training.

Around 7.4% of India's elderly population lives with dementia, a figure that translates into millions of families struggling to understand what is happening to someone they love. Most people with dementia first meet a general practitioner and, too often, their symptoms are dismissed as "normal ageing." That single missed moment delays diagnosis, denies families guidance, and silently erodes quality of life.

Medical and psychology curricula still prioritise acute, curable illnesses. Chronic, progressive conditions like dementia are rarely given structured space. In psychology programmes, dementia is often reduced to memory loss. In reality, it profoundly affects mood, behaviour

and relationships. Agitation, apathy, anxiety, and hallucinations – known as Behavioural and Psychological Symptoms of Dementia (BPSD) – can be far more distressing than memory decline itself. When professionals are not trained to understand these dimensions, care becomes medicalised but not humane and is focused on the disease rather than the person.

**What needs to change**

**Experiential learning:** While medical schools already include geriatric rotations under the National Programme for the Health Care of the Elderly (NPHCE), these must explicitly incorporate dementia care. Clinical exposure in geriatric outpatient clinics helps students see how dementia interacts with comorbidities such as diabetes, hypertension, and cardiovascular disease. This experiential learning builds empathy and clinical intuition beyond textbooks.

**Early diagnosis:** India's cultural and linguistic diversity demands validated, locally adapted cognitive screening tools. Students should be trained to distinguish

irreversible dementias from reversible conditions like depression, infections, thyroid dysfunction, or vitamin deficiencies. Early and accurate diagnosis not only improves outcomes but also restores dignity and direction to families who have long felt lost.

**Sensitive communication:** Delivering a dementia diagnosis is not a transaction; it is a conversation. Simulation-based learning and role-plays should train students to communicate bad news sensitively, manage behavioural changes, and provide families with realistic yet compassionate guidance.

**Interdisciplinary learning:** Effective dementia care requires collaboration across medicine, psychology, and social work. Case-based learning, inter-professional workshops, and short internships in dementia-care facilities can help students grasp the complexity of long-term care, where compassion, consistency, and clinical knowledge must work together.

**Family-centred care:** In dementia, the family is the unit of care. Students should learn to assess caregiver stress and burnout, offer coping strategies, and guide families to community and government re-

sources, including daycare programmes, counselling, and respite services. Dementia care that ignores the caregiver's well-being is incomplete and unsustainable.

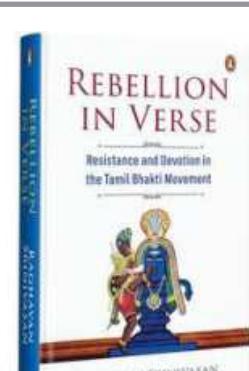
**Introducing dementia education:** Introducing dementia education is not merely academic reform, it is moral accountability. Every clinician will encounter an older adult losing their sense of self. Whether that encounter ends with empathy or neglect depends entirely on how we train the next generation of professionals. A structured, interdisciplinary dementia curriculum – anchored in evidence, communication, and compassion – can transform healthcare for an ageing India and ensure that doctors and psychologists are not only competent in diagnosis but also champions of dignity in ageing.

The writer is the CEO and co-founder of Epoch Elder Care

## ON THE SHELF

**Rebellion in Verse: Resistance And Devotion In The Tamil Bhakti Movement**

Long before Meera danced in the courts of Rajasthan or Kabir composed his couplets in Varanasi, the seeds of India's devotional revolution were already flourishing in Tamil Nadu. In the sixth century, poet-saints like Appar, Sambandar, and Andal began composing hymns in Tamil, challenging rigid caste hierarchies, priestly mediation, and Vedic ritualism. Their devotion was not just spiritual, it was



grip of Sanskrit and handed it to the masses. The hymns of saints from the margins – the fishermen Adipatthar, Periyavar, the hunter Tirumangal Alvar – and women devotees like Andal, and poets from socially marginalised communities, redefined spiritual authority. Their vernacular compositions in Tamil democratised religious life, making devotion accessible to ordinary people and leaving a legacy that continues to resonate across India.

**Author:** Raghavan Srinivasan  
**Publisher:** Penguin  
**Price:** ₹999

social protest. The saints of this movement were poets of the people, composing their hymns in Tamil and their verses, brimming with simplicity and profundity, wrestled divine wisdom from the elite

education means India is graduating clinicians who are technically sound but ill-equipped to address one of the fastest-growing health challenges of our time. Without reform, we risk a healthcare system that extends lifespan but not quality of life.

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stead of grappling with words and arguments, they often settle for algorithmic convenience, which dulls curiosity, interpretation, and originality. Students must be taught to use AI wisely as an aid to insight, not a substitute for thought.

**What can be done**

Many forward-looking universities offer courses on critical thinking, design thinking, and liberal education in which students are asked to explore, analyse, question, and create. But beyond curriculum reform, cultural reform is vital. Parents, teachers, and institutions must celebrate questions as much as answers, and curiosity as much as compliance. Simple routines such as daily reading, conversation circles, and questioning assumptions help build intellectual muscle. AI holds promise, but it should support, not replace, the thinking process.

The writer is a higher education leader who has been Vice Chancellor, Deputy Vice Chancellor, and Pro Vice Chancellor-Strategic across various private universities in India.

**The AI Shortcut:** Though a powerful educational tool, excessive reliance on it makes students intellectually passive. When students use AI to solve problems or write essays, they skip the process of struggle and analysis that builds understanding. In

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