

EDUCATIONPLUS

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Sanil Raj Johnson

Research was a time-consuming procedure in the early 1990s, when I was pursuing my M.Phil. in English Literature. Weeks and months were spent browsing library shelves, taking handwritten notes, and meticulously crafting arguments. Gathering even the most basic resources required time and perseverance. By the late 1990s, when I was doing my Ph.D., digital bibliographies replaced old card systems in libraries, cutting months of effort down to a few weeks.

Now that I am a research supervisor, I see a different world. Artificial intelligence (AI) programmes can summarise whole works – including novels, critical essays, and poetry collections – in seconds and provide immediate access to character analysis, theme overviews, and pertinent secondary sources. This technological breakthrough poses significant questions: Should research still take years in an era when foundational data is instantaneously available? Should we reconsider the objectives and structure of academic research?

**What AI can do**

Traditional research was deep and arduous. Reading ought to be in-depth and sustained. However, with AI, most of the mechanical work has been automated. For example, a scholar researching 21st century responses to *Hamlet* can instruct an AI programme to provide a synopsis, psychological in-



Archives to algorithms

Should we reconsider the objectives and structure of academic research in a world with AI?

sights, and an overview of growing critique in minutes. My Ph.D. research on the Black Mountain Poets required me to travel across the U.S., consult archives and original manuscripts, and interact with scholars. As a Fulbright scholar, I had the privilege of visiting Black Mountain College and engaging with source material that had rarely been explored. AI can now scan and analyse

such archives in seconds. Consider a student studying a historical figure. Previously, gathering biographical details, appraising social achievements, and comprehending personal challenges required days or weeks. AI tools such as Google Lens and natural language processors can now compile and format such data instantly. Provide a clear prompt, and the necessary material will

arrive, frequently with references and structure already in place. At a recent symposium on AI in education, an NIT professor stated that AI had saved him at least 15 years of academic labour. This statement encapsulates the massive transition we are witnessing.

In literary studies, it facilitates cross-textual analysis, aids in the identification of intertextual relationships,

and quickly offers historical context. Summaries, translations, and bibliographies are widely available, allowing scholars to focus more on interpretation and synthesis. Previously, a PhD may last three-to-five years and focus on a particular topic, but scholars today can investigate many themes or collaborate across fields. The time saved from data collecting can now be used for higher-level thinking and creative analysis.

**What AI can't do**

However, AI has its limitations. It cannot replace human intelligence, empathy, or interpretive nuance. Literary research is more than mere summary of content; it is also about dealing with ambiguity, comprehending historical and cultural contexts, and providing unique interpretations. These are essentially human tasks.

Over-dependence on AI can lead to conceptual shortcuts. Students may avoid the hard effort of intensive reading and critical engagement, resulting in shallow understanding.

AI may potentially misinterpret sophisticated analogies or overlook subtle themes, resulting in generalised responses that miss the essence of the issue. Authentic research thrives on depth, paradox, and a sustained intellectual engagement. If the process is rushed, we risk losing the richness of this academic pursuit.

Instead of resisting these developments, we must rethink research. Its core focus has always been generat-

ing new knowledge, developing new interpretations, and contributing meaningfully to academic discussions. The process of gathering information is just the beginning. The researcher's function is transitioning from data collector to meaning maker. In this new world, critical thinking, imagination, and the willingness to question must be prioritised. Academic training must prepare students to use AI tools wisely, without letting them control the outcome.

Institutions too, must reevaluate their traditional research models. Is the worth of a Ph.D. determined solely by its duration, or by the breadth and uniqueness of its contribution? Could shorter, more targeted undertakings facilitated by AI, be equally impactful? While AI has transformed research by making it faster, easier, and more collaborative, the fundamental component of scholarship remains unchanged. Critical thinking, intellectual rigour, and creative insight remain central and uniquely human.

As a research supervisor, I feel that the key issue is not whether research should span years, but how we wisely use the time available. AI frees us from routine tasks, encouraging us to go further and think deeper. Thus, the actual purpose of contemporary research should not be to accomplish more, but to do it better.

The writer is Professor of English and Dean of Student Affairs, Sahridaya College of Advanced Studies (Autonomous), Kodakara, Thrissur, Kerala.

SCHOLARSHIPS

**Mohan T. Advani Centennial Scholarship**

An initiative of the Blue Star Foundation

**Eligibility:** First- and second-year students of a degree/diploma programme Architecture and Engineering (excluding Civil Engineering) who have scored minimum 80% in Class 10 and 12 and 75% in the first-year and have an annual family income of less than ₹600,000.

**Rewards:** ₹1,00,000 or 75% of the annual fees (whichever is less) for engineering and architecture and ₹40,000 or 90% of the annual fees (whichever is less) for diploma.

**Application:** Online

**Deadline:** July 15

www.b4s.in/edge/BSFS4

**Raman Kant Munjal Scholarship**

An initiative from the Raman Kant Munjal Foundation, supported by Hero FinCorp.

**Eligibility:** Indian nationals enrolled in a finance-related degree such as BBA, BFIA, BMS, IPM, B.A. Economics or others with minimum 80% marks in classes 10 and 12 and have an annual family income of less than ₹600000.

**Rewards:** Between ₹40,000 to ₹ 5,50,000 per year for three years

**Application:** Online

**Deadline:** July 31

www.b4s.in/edge/RMKSP5

**Bharti Airtel Scholarship**

An initiative of the Bharti Airtel Foundation

**Eligibility:** Indian citizens who have been admitted into the first year of a UG or five-year Integrated course in Electronics and Communication, Telecom, Information Technology, Computer Sciences, Data Sciences, Aerospace and Emerging Technologies in one of the top 50 NIRF-ranked Engineering institutes with an annual family income of less than ₹850000. Girls, persons with disabilities, orphans, single-parent children and transgender students will be given preference.

**Rewards:** 100% of annual fees for the course.

**Application:** Online

**Deadline:** July 31

www.b4s.in/edge/BHRSP2

Courtesy: buddy4study.com

Build a strong foundation

Uncertain about your career options? Low on self-confidence? This column may help



OFF THE EDGE  
Nandini Raman

**I am in Class 12 (PCMB). Initially, my goal was to take the NEET, but now I want to start my own venture. What are the courses I should pursue? Should Business be a second option? Sachin**

Dear Sachin,

Bachelor of Business Administration (BBA) will provide a solid foundation for understanding business dynamics and developing essential management skills. B.Com. will help build strong financial literacy. B.Sc. Economics will provide a strong understanding of market trends, economic indicators, and consumer behaviour. An Integrated BBA-MBA programme will provide a comprehensive business education and accelerate your path. You could also consider Bachelor of Design (B.Des.) in Product Design or Interaction Design if your venture involves developing innovative products or services, as its focus is design thinking, user experience, and product development. Online courses and certifications will help you gain practical skills like digital marketing, e-commerce, or entrepreneurship.

Pursue a degree that provides both business knowledge and marketable skills. Build a strong foundation and gain experience and insights into business operations, management, and industry trends. Use your undergraduate years to develop essential business skill, such as communication, problem-solving, and financial literacy. Participate in internships, workshops, and extracurricular activities to gain practical experience. Entrepreneurship involves

inherent risks. Having a solid foundation and backup plan can mitigate these risks. Develop your business ideas and skills while in college. Participate in business plan competitions and entrepreneurship programmes. Develop a financial plan and explore funding options, conduct market research to identify viable business opportunities. Finally, seek guidance from experienced entrepreneurs or mentors.

**I am in Class 12 (PCMB). In Class 11, I went through stress and anxiety and became discouraged with Science. I thought of pursuing the Humanities but the low probability of jobs was a deterrent. A career counsellor advised me to pursue Computer Science as my logical and analytical skills were high, but there isn't enough time for me to prepare for the JEE. So, I decided to pursue Engineering in a state-run college. Will this put me at a disadvantage? Arun**

Dear Arun,

Your success in Computer Science Engineering will depend more on your efforts, skills, and determination than on the reputation of your college. Focus on developing your skills, building a strong portfolio, and networking while prioritising your mental health and well-being. Many state-run colleges have excellent professors and solid curriculum and many successful engineers as alumni. It is not a disadvantage. Focus on developing strong technical skills, problem-solving abilities, and a solid understanding of computer science fundamentals. Build



connections with professors, industry professionals, and fellow students. Seek internships, part-time jobs, or freelance opportunities to gain real-world experience and build credentials.

Maximise your opportunities and focus on Skill Development. Learn programming languages (Python, Java, C++), data structures, algorithms, and software development principles. Explore emerging technologies like artificial intelligence, machine learning, and cloud computing. Build a portfolio to showcase your skills and creativity. If you aspire to work in specialised areas, consider pursuing a Master's degree after your B.Tech.

**I am a Chemical Engineering graduate interested in preserving natural habitats and water bodies. But I do not like being in an urban set-up. What can I do? Azad**

Dear Azad,

Leverage your education and environmental interests. Some options outside the urban settings are in environmental remediation and restoration (projects to

clean up contaminated sites, restore damaged ecosystems, and revitalise water bodies) often in remote rural areas, or water resource management, environmental monitoring and assessment, sustainable agriculture and aquaculture, remote sensing and geographic information systems, forestry and wildlife management, and environmental engineering. Depending on your interests, develop specialised skills via certifications and training. Seek internships or volunteer opportunities with environmental organisations or government agencies that work in rural areas to gain hands-on experience and build your network. Attend environmental conferences, workshops, and networking events. Organisations like the Central Pollution Control Board (CPCB) or state pollution control boards have positions that involve fieldwork in rural areas. Many NGOs work directly in the field, with conservation and restoration projects. Emphasise how your engineering background can be applied to environmental challenges.

**I completed B.Tech. Biotechnology in 2022, and am working in a government department that does not have opportunities for growth. Should I opt for an M.Sc. in the same field or attempt government exams? Anshuman**

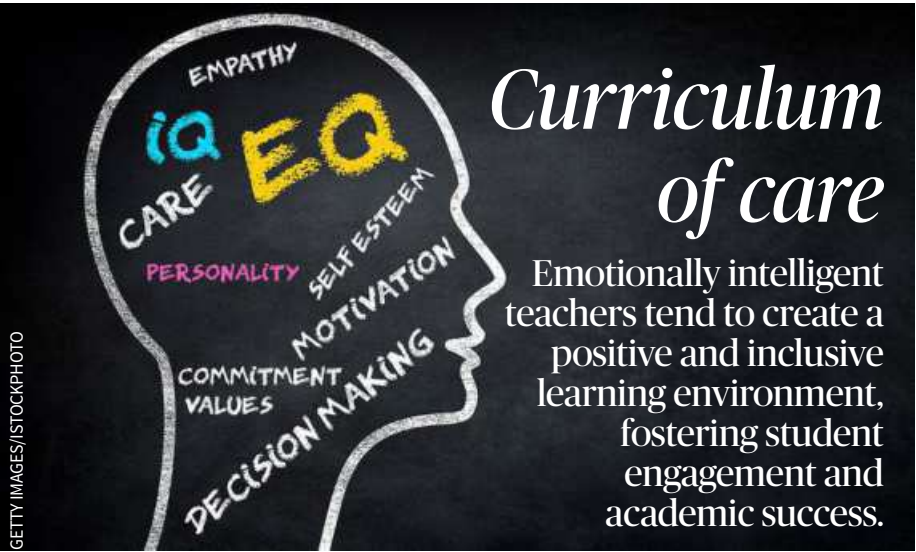
Dear Anshuman,

What are your passions and strengths? What type of a work environment would you prefer? While an M.Sc. will deepen your knowledge and specialisation in biotechnology and open doors to research, academia, and specialised industry roles, it needs significant time and financial investment with no guarantee of an immediate job placement. If you are passionate about research or academia, an M.Sc. is a good choice. Choose a programme with strong research facilities, industry connections and specialisations like bioinformatics, industrial biotechnology, or environmental biotechnology, which have good growth potential.

If you are interested in public service and are willing to dedicate time to exam preparation, then taking the government exams is a viable option as it offers a career path with good benefits but growth can be limited. Explore industry roles and opportunities in pharmaceutical, biotechnology, or research companies. Data Science/Bioinformatics, Entrepreneurship or further skill enhancement will enhance your employability and open up new career paths.

**Disclaimer: This column is merely a guiding voice and provides advice and suggestions on education and careers.**

The writer is a practising counsellor and a trainer. Send your questions to eduplus.thehindu@gmail.com with the subject line Off the Edge



Curriculum of care

Emotionally intelligent teachers tend to create a positive and inclusive learning environment, fostering student engagement and academic success.

Sanjay Desai

With the advent of technology and glocalisation, education has seen significant transformation. Teaching today is more than just curriculum delivery. It also involves helping students to develop holistically and fostering knowledge, skills, and the confidence to overcome obstacles and thrive in society.

Teachers need to be role models, emotional pillars, and frontline responders to the psychological needs of students. Considering the increasing student stress, behavioural challenges and mental health crises, teachers require training in emotional intelligence. Teacher education programmes predominantly focus on pedagogy, subject matter knowledge, and assessment techniques. Only a few emphasise the skills to navigate the emotional aspects of teaching. Emotional intelligence is a critical factor in determining both teacher well-being and classroom effectiveness.

From pride in student success to the stress of daily responsibilities, teachers navigate an array of emotions – guilt, demoralisation, and anger – as they deal with student needs, classroom challenges, school management, pa-

rental demands, and personal stressors. If they are unable to deal with these, it can lead to burnout and lack of motivation, which in turn impacts the students.

**Necessary skill**

Emotional intelligence makes teachers more conscious of acknowledging what stimulates their emotions and how to manage their responses. It promotes empathy and enables educators to recognise and respond better to student behaviours. It fortifies interpersonal ability and facilitates effective communication and conflict resolution. Teachers with higher emotional intelligence are able to manage classrooms better, develop healthy relationships with students and create a positive and inclusive learning environment that fosters student engagement and academic success.

Emotionally safe classrooms in which students are understood, valued, and supported are more likely to be places of learning. Emotional intelligence training develops teachers to create such settings, employing relational rather than traditional methods of managing behaviour and conflict.

Due to the prioritisation of quantifiable academic achievements over soft skills in professional training, emotional intelligence

training for teachers remains notably absent in mainstream teacher education. However, the rise of mental health problems reveal the pressing need to revamp teacher training and fill the gaps with real-time practical approaches.

Teacher education should accommodate today's realities of contemporary classrooms, including structured opportunities for educators to reflect on their emotional patterns, understand their stress responses, and develop strategies for emotional self-care. Peer sharing, reflective exercises, and experiential learning should become core components of teacher development programmes.

The National Education Policy (NEP) 2020 emphasises student centric education. Including emotional intelligence in teacher education is part of NEP's vision and will reduce teacher burnout, and create an education system where learning can be exciting and productive.

When a teacher is empowered on several fronts to recognise and manage their feelings while teaching, they can create a productive environment promoting mental well-being, educational achievement and knowledge.

The writer is the Founder and CEO of ConsciousLeap.





But how will you learn to solve them unless you grapple with them on your own? Though it's going to be a long evening, you decide to wrestle with the equations, knowing that it is the only way to get a firmer handle on them.

The term “productive struggle” was coined by James Hiebert and Douglas Grouws, in the context of Maths instruction, to describe the effort students have to make to decipher com-



Ankit Mehra

**Overspending:** A common mistake is not following a rigid budget. For example, by not understanding local standards. In India, purchases are made in kilograms and litres. In the U.S., ounces and gallons are used. Not understanding these chang-

**Credit cards and loans:** Over-dependence on credit cards and loans can trap you in a cycle of debt when used for daily needs. Credit cards payments come with

**Emergency funds:** Medical emergencies, sudden travel requirements, or loss of a part-time job come without warning. Without an emergency fund, students may be forced to take out high-interest loans or make difficult compromises. Creating an emergency savings account ensures

The writer is the CEO and co-founder of GyanDhan.

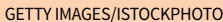
Asking students to explain their reasoning helps them become more accepting of productive struggle. Instead of focusing on the final answer, teachers may coax students to articulate the steps involved in finding the answer. They may also urge them to approach and solve problems in different ways. These exercises need to be done in a non-judgmental

Of course, productive struggle is not limited to mathematics but is applicable to all disciplines. A post on [progresslearning.com](http://progresslearning.com) titled *What is productive struggle in education?* describes this phenomenon in the context of reading. When students are given a text that is just above their current level of 'proficiency', they have to actively engage with it to understand its contents. To comprehend a challenging text, students need to deploy an array of critical thinking skills like making connections, questioning, drawing inferences, summarising and identifying key points and supporting details. As they engage with the material, students are likely to feel befuddled and frustrated. But sticking with it and trying to un-

The only caveat is that you need to find the optimal level of challenge without burning yourself out. While mild to moderate frustration is expected, if a subject is causing you deep anguish, you may seek help from your professor, peers or a tutor. If none of the strategies work, consider shifting to another course.

The writer is visiting faculty at the School of Education, Azim Premji University, Bengaluru, and the co-author of *Bee-Witched*.

## How to balance SAT/ACT preparation with regular school activities



**Sanjog Anand**

Every year, school students find themselves trying to balance the intense demands of preparing for standardised tests such as SAT and ACT and regular academic responsibilities. SAT and ACT scores often play an important role in college admissions and scholarships but, when combined with homework, testing, and curricular activities, the pressure can be immense. However, this can be done with the right strategy and is an opportunity to develop time management, self-control and flexibility skills.

Second, have a practical approach. Start with weekly blocks and increase the intensity as the exams get nearer. For example: three days of SAT or ACT prep and three days for school academics, and one day for rest. Also plan your study sessions for each day. Start with the most challenging

Turn to mentors, teachers, supervisors, or former students who can guide and help you prioritise studies, stay on

While trying to balance SAT/ACT prep with school responsibilities is demanding, it is important for those planning to get into colleges in the U.S. The right strategy will help you come out with flying colours.

The writer is the co-founder of  
Rostrum Education

**D. Vijay Raghavan**

Pursuing a degree in English Literature involves more than just studying texts. It helps cultivate a sharp intellect, nurture creativity, and master the art of communication. Whether your passion lies in the written word, visual storytelling, education, or digital innovation, English Literature provides a versatile foundation for a successful and fulfilling career, as it equips students with the agility to adapt, the imagi-

English Literature equips students with the agility to adapt, the imagination to innovate, and the eloquence to lead in various sectors

**Publishing:** From copy editing and proofreading to content development and manuscript evaluation, this field offers a creative yet structured environment for those with a keen eye for detail and a passion for

**Media:** In both print and digital platforms, English Literature graduates shine as reporters, columnists, editors, and content strategists. Their ability to research thoroughly, think analytically, and write persuasively makes them indispensable in newsrooms, television channels, and multimedia content hubs. Storytelling is at the core of journalism, and literature students are trained

GETTY IMAGES/ISTOCKPHOTO

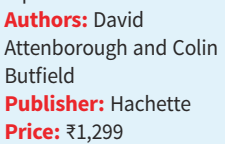
**Creative Writing:** For those who possess a flair for storytelling, English Literature is the perfect springboard into the world of novels, poetry, screenplays, and plays. With an innate sense of narrative structure and character development, graduates can carve careers as authors, drama-

**Digital marketing:** Content creators, SEO specialists, copywriters, and social media strategists ... whether working for branding agencies, start-ups, or multinational corporations, English Literature graduates can shape the narratives that captivate consumers and build brands in the digital marketplace.

At its core, English Literature is the study of life articulated through language. It refines your intellect, expands your worldview, and ignites your creativity. In an age where clear communication, cultural awareness, and creative thinking are key to professional success, this discipline offers an invaluable toolkit.

The writer is an Associate Professor of English, Sree Narayana Guru College, Coimbatore.

## ON THE SHELF



### ■ The Ghadar Struggle

The Ghadar Movement was

