

## Higher education in India: in search of the teacher

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Every summer hundreds of thousands of our young men and women throng institutions of higher learning for admissions in order to pursue the dream for a better quality of life. The realization of this dream does not come easy; the applicants must invariably pass the hurdles of what are popularly known as entrance tests to various courses at the colleges/universities. These relentless 'entrances' exhibit little faith in what each student has achieved at the latest examination passed; many a time the qualifying examination may be conducted by the same university where the candidate is appearing for an entrance test to a post-graduate course. Although this may be the only mechanism that we have come to know and trust to select the best of the lot, this screening throws more questions than answers at our education system. We may boast of being the world's third largest educated and technologically trained manpower, but the subtext of this self-congratulatory rhetoric is not as flattering and inspires little confidence in what we hope to do with our generation next. Here, I wish to examine some of the lesser addressed issues in tertiary education and explore the possibility of how to get around looking at this problem afresh and save ourselves the unwanted consequences of wasted opportunities.

This contribution is primarily the result of my experience at an entrance examination for a postgraduate inter-disciplinary programme, based on a dataset of nearly 900 student applicants across India and across the disciplines of humanities and sciences. The thesis is constructed around the responses to questions at the entrance test that covered multiple choice questions (MCQs), short answer (1–2 lines) and long answer (8–10 lines) on general knowledge, knowledge of social issues and the basic sciences. Most questions could be classified as of higher secondary and some of undergraduate level. Some may argue that the sample size is not robust enough, but the aim here is to observe a trend and make a case for a meaningful latitudinal study across institutions in time and space to confirm or otherwise the validity of the thesis put across here. This analysis will

reveal the subterranean fault of our education system that involves the triangular participation of society (parents), students and teachers (the troika). As a caveat let me warn the reader that it does not need to be perceived as a blame-game exercise, but a serious effort to let the untold problems surface to a level where we can perhaps look into the mirror and see if there is a way forward. It is critical because, as any evolutionary biologist would tell you, that behind a successful evolutionary novelty that expresses itself as a unique life-form, there are a hundred, thousand or even a million experiments that have failed without anyone having taken notice. These intermediary stages of failed designs are crucial to lay a foundation for a successful model to take shape and express itself in more ways than one.

### The qualified workforce

We first need to examine what quality of students do we churn out at schools and colleges, which prepares them for higher education at the universities. As stated in the beginning, we are proud of being the world's third largest trained manpower, but a less than nuanced analysis reveals that there is something terribly and worryingly wrong about this idiom. Let us turn to the instance of the 'entrance test' and the students' answers to a set of questions referred to above. Clearly, the responses to the questions are rather baffling. The point here is not to suggest that every student is expected to correctly answer all the questions in a test, but a student aspiring to be enrolled in a post-graduate course is expected to exhibit common sense and at least hover around the right answer; it is the correct approach and attitude and not the correct answer that is the guiding principle here. If a student, for example, aspires to study environmental studies, he or she as an undergraduate/post-graduate, is expected to know the name of at least one mountain range of Europe. It is understandable that a candidate may fail to remember/recollect or is not confident about the right answer/choice, but most definitely

cannot suggest that the Himalaya, Western Ghats, Aravallis or Andes are mountain chains of Europe. Similarly, among the options given to the candidates to choose the location of a cold desert between the Western Ghats, Leh and Ladakh, Andaman and Nicobar Islands and Rajasthan, more than 20% students picked the Western Ghats as their choice, followed by nearly 15% students for whom it was Andaman and Nicobar Islands. These are disturbing trends because somewhere someone has failed the student; the society and the teachers need to share the blame for the students' failure to think critically and imaginatively. To yet another question that required the candidates to write one word for 'copying someone else's work and producing it as one's own', more than 40% wrote 'copyright', followed by words such as 'cheating', 'cheater', reference, etc. The weirdest response to this question by one of the candidates was 'A. P. J. Abdul Kalam'. What could have been in the student's mind while proffering such an irrelevant and bizarre response? Have we, as educators failed to make students think at all? There can be nothing more damaging that we as teaching community seem to be meting out to the taught – at schools, colleges and universities. What we need to ask ourselves is: what does such a generation (arguably constituting the world's large trained manpower) bring to the table? However cynical this may appear, it is relevant and we can only brush it under the carpet at our own peril. Romanticism is a great idea, but we should not push ourselves into foolery. Interestingly, the only question which returned nearly 90–95% correct answers was RAM (random access memory). A meagre solace that this generation is tech savvy, but that is hardly the point is making. It may sound alarmist, but the damage seems to have been done, almost irreparably. The essay-type questions returned varied responses, but disproportionately higher numbers were sermonizing, opinionated, verbiage, poorly written, lacked coherence or any depth of analysis – straight from the television debates – little on substance, more on ill-informed and borrowed rhetoric. What

is the way forward? Without doubt implement some ideas that are already there; an excellent prescription can be found in an editorial in *Current Science* by Balaram<sup>1</sup> that appeared exactly one year ago. Unfortunately, as Balaram has lamented in his editorial 'most recommendations have been welcomed and then ignored', this is the real bane of Indian education.

### The teacher-mentor

Nobel laureate Hans Krebs in his inaugural address at the Department of Biochemistry at the University of Newcastle-upon-Tyne in 1967 emphasized the role and need of great teachers and the perpetuation of centres of excellence. The lecture, which was subsequently reprinted by *Nature*<sup>2</sup> and also *Current Science*<sup>3</sup>, clearly suggested that it is only a great teacher who can produce a great student. Krebs illustrated his point with the help of a scientific genealogy flow-diagram, wherein a string of teacher-student lineages had gone on to win Nobel Prizes; he himself belonged to one such lineage. The teacher's role as a mentor and the one who enthuses a student to think beyond the boundaries of the given text is crucial in shaping the future of education. Unfortunately, in India, we seem to be getting the wrong end of the stick; instead of seeking and selecting great teachers at the academic institutions, we spend endless energies on 'attracting/enticing' and 'admitting' good students. The 'cut-off' syndrome has completely taken hold of our senses and the troika that I mentioned above, busies itself with how the bar is going higher by the day. The print and the ubiquitous electronic media only fan the frenzies of students and parents, who keep on marvelling how a certain college has stopped admitting students just below 100% cut-off in various programmes. Most times these figures make a comical reading and give an impression as if these were sports scores – goals, runs, points. As a nation or as educators we have not so far questioned as to what happens to these extremely 'bright' students (who have nearly broken the examination ceiling at higher-secondary level) once they leave the college/university. A longitudinal study across the most reputed colleges/universities in the country that take pride in admitting students with unbelievably

high grades would be highly desirable. This study may perhaps reveal that these students after all did not do as well at the entrance examinations or at the time of leaving college/university as they did when they entered it. Two main conclusions can be drawn here; either the higher secondary grades or the grading system were wishy washy or the tertiary education institutions did the damage. Clearly, in the latter case, we, as teachers must take the blame for converting a 'brilliant' student into a less brilliant or even a mediocre one because a number of such brilliant students, in the entrance test referred to above, answered that the Western Ghats or Andaman and Nicobar Islands were a cold desert and that Himalaya was a European mountain chain. What we need to ask is if this downward slope of good teachers is a historical problem in India or a recent phenomenon? There are enough indications that over the years we have steadily gone downhill as far as good teachers are concerned<sup>4</sup>.

One is not trying to oversimplify something that is inherently complex, but aiming at bringing into focus too much trust and dependence on a grading system which is sired by not so great teachers and therefore, not reliable. As a result, the moment the context or the space of a student changes, the reality surfaces staring in our face. It may be left to sociologists to analyse how and where have we, as teachers, gone wrong or how the square pegs have come to occupy round holes? I would only reiterate that a strategy needs to be put in place that ensures intellectual development of a pupil by helping him/her to learn how things are done, analysed and what sense to make of a given process, phenomenon or situation rather than simply remember the given content. Although rote learning has overwhelmingly been rubbished, it has never been severed from our education system for the obvious reasons of its importance in the educational enterprise and the quick results attached to it. Remembering and recalling information at any given point of time is not such a bad idea for a student or a teacher, but too much dependence on the content without any idea of what skills and methodologies were employed to generate the said content can only be half education. Some educationists have argued that 'we need to get students to understand that knowledge is constructed in a context based on

judgement of evidence and that we need to get them to move away from simply remembering information to developing skills of experimentation, observation, interpretation and finding information'<sup>5</sup>. In the words of Tim Hunt, 'Knowing how we know is at least as important, for a real scientist, as what is known'<sup>6</sup>. This calls for a fresh approach to tertiary education, which is seamless, integrative and liberal in the truest sense. In such a system the teacher assumes the central role as presiding over an ideal that all the stakeholders need to achieve in unison.

It may help us in India to reinvent our much forgotten traditional system, where a student was required to spend a major part of his time in the company of his teacher. This way a pupil not only picks up information and gains knowledge from the teacher, but also participates in or at least is a witness to the process of generation of the information and the knowledge accrued thereof. More emphasis needs to be laid on the constant availability of the teacher and practical training at undergraduate/post-graduate level in order to let the students be imbued in a culture where they begin to know and appreciate how a problem is thought of, a certain result is obtained, followed by the presenting of data and their analysis. The gap between 'generation' and 'conveying' of knowledge needs to be plugged; there cannot be a better situation when the same teacher is the creator/generator and the conveyor of knowledge. In this situation a paradigm that aims at embedding teaching programmes in a research environment of a university and avoiding segregation of teaching and research<sup>1</sup> is well worth the try. This noble advice, however, appears to be a tall order in today's circumstances. It is worrying that we are struggling with teacher absenteeism and disinterest in colleges and universities; this needs to be immediately reversed if we are to make any sense of the academic enterprise.

I would hazard an unpopular prescription – do away with students' and teachers' unions in the colleges/universities and instead institute a robust, efficient and just grievance redressal system in these institutions. The business enterprise in India has fought, soft and hard way, to liberate itself from the fettering of the labour unions through legislative and executive interventions. One fails to understand why the educational institu-

tions must remain tied to a pre-cold war thinking and impeding machinations by all types of unions. The rampant politicization and bureaucratization of institutions of higher learning must give way to a sober academic environment where dialogue becomes a normal mode of conducting business. A number of good Indian universities have opted for appointing retired and serving bureaucrats in administrative positions. This is an undesirable development because many a time the ephemeral civil servant is unable to come out of the 'collector mode' which vitiates academic atmosphere, stifles dialogue and becomes the reason for conflict and discord. Not for a moment is one suggesting that bureaucrats are insensitive and high-handed, but they often lack the understanding of the context and historicity of the academic institution where they come to serve for short periods. On a number of occasions we have witnessed even military officers being seconded to universities as Vice Chancellors; there can be nothing more trivializing for education than this retrograde step. The argument has got nothing to do with administrative acumen of the 'officer', but is only suggestive of a need for thoughtfulness and deliberation while selecting administrators for our universities. My hunch is that a great teacher will

make an acceptable, humane and a progressive administrator. We will do great service to our nation if we spend energies on seeking great teachers and put them in charge of not only the classrooms and laboratories, but also of the institutions. Only then can we really feel proud of producing good quality trained manpower, otherwise it will just remain a pipe dream, a rhetoric of numbers. Notwithstanding what has been said above the reader may enjoy this interesting poem by Emily Dickinson.

*Knows how to forget!  
But could It teach it?  
Easiest of Arts, they say  
When one learn how.*

*Dull hearts have died  
In the Acquisition  
Sacrificed for Science  
Is common, though, now –*

*I went to School  
But was not wiser  
Globe did not teach it  
Nor Logarithm Show.*

*'How to forget'!  
Say – some – Philosopher!  
Ah, to be erudite  
Enough to know!*

*Is it in a Book?  
So, I could buy it –  
Is it like a Planet?  
Telescopes would know –*

*If it be invention  
It must have a Patent.  
Rabbi of the Wise Book  
Don't you know?*

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