The Imbalance In Education In India

■ **Dr. M.N. Buch**

Education is a multi-layered cake in which the icing and decoration is on the top, in which the base is the foundation on which the whole system rests. Obviously the base of every education system has to be the entry point nursery, kindergarten, primary, middle level, high and higher secondary schools. If the schools, by and large, are of a certain standard in which the objective is to impart education rather than just teach literacy, the general standard of all students, regardless of caste, creed, social or economic status will be of at least a minimum acceptable level. The strength of the American Public School System (in India that would be the Government School System) is that in the matter of funding in the public domain there is a degree of equality, though richer communities are free, through the School District Board, to raise additional funds to upgrade the school infrastructure. The principle of bus-ing or using school buses to transport school children to even distant schools where they might have been admitted, is a great leveller because through this that country has been able to substantially reduce racial discrimination by admitting and transporting white children to black majority schools and vice versa. This is not to state that the American school system is ideal, but because the vast majority of children study in schools in the public domain, the average American child has access to a fairly good quality school from the earliest age.

The situation is totally different in India. The Right to Education Act notwithstanding, the standard of government, panchayat and municipal schools is abysmal and the difference between rural schools and urban schools is a veritable chasm. The infrastructure in terms of buildings, furniture, teaching aids and laboratories is disgraceful, Sarva Shiksha Abhiyan notwithstanding. In rural areas in many places teachers are more often absent than present, a number of schools are single teacher, learning is by rote and it is a rare and unusual village teacher or teacher in a government school in the towns who looks upon it as his duty to arouse the curiosity of children and make them partners in the learning process. Dr. A.P.J. Abdul Kalam was fortunate in that in his village in Rameshwaram he had a teacher whose dedication ultimately produced a great scientist who went on to become the President of India. I had the fortune to run across Pannalal Pawar in Neempani Village of Betul District who, in the Tribal Welfare Department, ran with great imagination a primary school. He made children partners in the process of learning, fish keeping, raising poultry and cultivating a vegetable garden. Apart from reading and writing he taught them the skills which would make them better farmers and he imbued in the children a desire for education.

In the bleak landscape of school education we have the refreshing oases of about 560 Navodaya Schools located in rural areas, admitting only rural children, with a decent physical and educational infrastructure, reasonably good teachers, complete residential facilities in which all the children are educated, fed and looked after free of cost. For some years now the children from these schools have put in the best performance of all schools in CBSE examinations. We need thousands of such schools and whereas the Prime Minister sanctioned 6000 of them, our then HRD Minister, Kapil Sibal and the Deputy Chairman of the Planning Commission, Montek Singh Ahluwalia, virtually torpedoed the scheme by introducing the red herring of the PPP mode. With such policy makers how can India educate itself?

I have dwelt on schools at length because with the public sector failing to provide that number of schools which can give us universal education of a reasonable standard, schools in the private sector have proliferated. There are high fee charging so-called public schools and a very large number of high fee charging schools which are not a part of the Headmasters Conference, that is, they are not residential public schools on the model of the British public schools such as Eton and Harrow. Though these schools charge a high fee and their infrastructure is better than that of government schools, the standard of education imparted is very patchy. There are some very good schools but the vast majority of them are just commercial ventures which mint money because of the general hunger for education, impart a degree of literacy which can lead to a higher secondary certificate, but do not educate in the sense of developing the young minds. Our good schools are better than anything that the rest of the world offers. Our average schools are mediocre in the extreme and the average government or private school is the pits. On this huge, unstable, unanchored foundation of schools, which is shaky and liable to collapse, we are trying to build a multi tiered cake or a pyramid in which the Indian Institutes of Science Education and Research, the Indian Institutes of Management, the Indian Institutes of Technology, the Indian Institutes of Information Technology, the National Institutes of Technology and Central Universities are at the apex.

A mountain top is only as stable as the base of the mountain and if that base is flawed the mountain can topple any time. The base, the foundation, is not only the school; it is also a mofussil college and the state university. Both are extremely poor examples of an education system, which form the ground floor of the structure. For example, Bhopal has more than one hundred so-called colleges of science and technology in the private sector. The Indian Institutes of Technology and the Indian Institutes of Information Technology have a faculty shortage of approximately 45 percent. The National Institutes of Technology are no better. Where will all these private colleges of technology get teachers? We need 8000 Ph.D. in technology every year if we are to feed both the research sector and the education sector. We produce only 800 per year. The private colleges, therefore, use fresh graduates to become teachers on contract and these people, who are hardly educated themselves, can certainly not educate the children whose fate is put in their hands. The Indian Institute of Information Technology and Management, Gwalior is running a very successful Training For Professionals (TFP) course of three months duration and now this has been upgraded to an advanced course. The objective is to bring in graduates from lower level institutes of technology and engineering and through intensive training teach them both soft and hard skills. It is amazing how much has to be taught to students who have been exposed to four years of so-called technical education. IIITM, Gwalior is only scratching at the surface because the maximum intake of a course is fifty, three courses are run every year and one hundred and fifty persons acquire the skills necessary for them to become employable. The number of so-called engineering graduates runs into lakhs. Incidentally, TFP was introduced in many Indian Institutes of Technology and National Institutes of Technology but IIITM, Gwalior is the only one which has successfully run the programme. The point being made is that the vast majority of our so-called colleges of technology are producing a product which has actually not been educated at all.

That brings us to the apex institutions. The feeders of these institutes, the schools, generally do not produce the students who can imbibe higher education. Though a larger number of people from rural areas are now beginning to compete, by and large it is the same group of elitist schools which produce students who are admitted to universities such as Delhi University, to the Indian Institutes of Technology and the Indian Institutes of Information Technology, the

Indian Institutes of Science, Education and Research and the Indian Institutes of Management. These students are the cream of the cream but all come from a limited collection. To these one can add the students who have come through crammers as represented by coaching classes in places such as Kota, but whereas they have learnt the ability to pass an entrance examination it is doubtful whether their minds have been developed by the coaching classes to a level where they can both assimilate the education given in our apex institutions and to grasp the relevance of research and then set their minds in a research mode. With the brightest students in India neither the IIsT nor the IIsM have a research record which comes anywhere near such universities as Cambridge, Oxford Sorbonne, the Berlin Technical University, Princeton, Harvard, Yale, MIT, the University of California, Berkley or Leyland Stanford. The infrastructure in our institutes is adequate for research, the teachers are highly qualified, the students are very bright but the environment for research is not there, with the result that these top institutions are looked upon more as training grounds for increasing one's employability, finding a job which gives a very high salary and in moving into the corporate world here and abroad. To my mind if these institutes become only employment centres then they can hardly be called educational institutions.

For our top level institutes of technology to achieve both their potential and their objective we need to strengthen our entire system of technical education in which the average engineering college is given the infrastructure and the faculty which can impart good undergraduate education. It is these students who on graduation will either move to employment, mainly in the public sector, or will pursue higher studies in an NIT, IIIT or IIT. These apex institutes could then become vibrant centres of academic activity and research. The removal of the present imbalance is the responsibility of government. Unfortunately government in the Ministry of Human Resource Development is far too busy using education as a political tool than in addressing basic questions of education at school and college level and, therefore, the reforms we need are not only on the back burner—they are in deep cold storage.

There is another form of imbalance which escapes our notice on which we must focus. Before I proceed to discuss this let me add that the imbalance in the field of technology and science is reflected in other fields also, such as medical education and agriculture education and research. That, however, calls for a separate paper. To return to the subject in hand, education is not a function of Science and Technology alone. Equally important are the Humanities, Social Sciences and Liberal Arts. When I joined the Indian Administrative Service in 1957 engineers and doctors of medicine were prohibited from appearing in the UPSC examination for Civil Services. This was because it was felt that since the nation has invested so much in teaching a student to be an engineer or doctor, both professions which are extremely valuable to the nation, it would be a complete waste of money and effort to divert this talent to the mundane task of administration. Therefore, students who had studied Economics, History, Physics and Chemistry, English Literature, Sociology and allied subjects dominated the Indian Administrative Service and the Indian Foreign Service. When, however, the doors were thrown open to doctors and engineers and the format of the examination changed so that objective tests replaced the more analytical narrative form of questions and answers the balance tilted in favour of people from the technology stream.

What students study largely depends on what lies at the end of the course of studies. If a student of technology has a better chance of getting a job in government, in the public sector or in the corporate world, why should a student study History, Literature, Arts or Economic?

Therefore, gradually the status and level of Humanities, Liberal Arts and Social Sciences declined, not only in India but in most parts of the world and now there is a very real fear that whereas education which narrows the focus of a student on to a particular subject is gaining ground, the more widely focused education which develops a student's mind all-round and his liberal outlook is declining. This has had a cascading effect on value systems, administration, environment awareness and the decline of a class of citizens that is concerned with good government, national integration, integrity and personal honesty.

We need to do a great deal of thinking on the interaction between the Arts, Humanities, Social Sciences, Liberal Arts, Management, Technology and Sciences. We need a very solid injection of Humanities and Social Science education in our Institutes of Technology and Management so that these disciplines act as the pivot around which the more specific disciplines evolve and develop and the student himself becomes a much more well-rounded person. We also need to encourage students to go in for liberal education because it is this which will evolve a sense of values, morality, of liberal thoughts and, therefore, develop a liberal, democratic, honest and decent society. Has the Ministry of Human Resource Development even thought of these ideas, much less articulated them? If India is to continue to be a civilisation to be proud of then a Panini will have to be put on the same pedestal as an Aryabhat because if a great scientist is of importance to India, a Kabir with his down-to-earth philosophy is equally important. The civilisational base of India needs this. If technology is the servant of man, if untamed technology can alter the physical, climatic and environmental contours of earth, then the man using technology has to be more than a scientist, a technologist, a person expert in physical things. He has to be sentient and sensitive, liberal in thought and action, attuned to nature, synchronised with people, personally honest and, in short, what we called civilized. To quote Rousseau, "The noblest work in education is to make a reasoning man …" Even to know that Rousseau existed calls for more than technical education. It needs a far ranging mind that spans the whole universe. Of course, the wonder of technology is that helps us to locate Rousseau, the wonder of the mind is that it helps us to understand him. We need both.

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