Goals of Indian Education in 21st Century

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Abstract

This paper proposes a new paradigm of 21st century Indian education; one that will require a holistic transformation of education systems. It will be guided by a comprehensive roadmap of curricular and assessment reform, new teacher recruitment and training strategies, leadership development, and the integration of collaborative technologies. It will be facilitated by exceptional teachers and supported by technologies that allow individuals to create, adapt and share content. Students will complete project-based, cross-disciplinary tasks that encourage innovations and cross-cultural collaborations, and apply their knowledge and creativity in solving real-world problems.

Although the vision is global, the path to 21st century education requires a local journey; one that recognizes and responds to specific challenges and opportunities. The end goal is the systemic improvement of both the quality and accessibility of education throughout the world.

Introduction

India's education system turns out millions of graduates each year, many skilled in IT and engineering. This manpower advantage underpins India's recent economic advances, but masks deep seated problems within India's education system. While India's demographics are generally perceived to give it an edge over other countries' economies (India will have a youthful population when other countries have ageing populations), if this advantage is restricted to small, highly educated elite, the domestic political ramifications could be severe. With 35 per cent of the population under the age of 15, India's education system faces numerous challenges. Successive governments have pledged to increase spending on education to 6 per cent of GDP, but actual spending has hovered around 4 per cent for the last few years. While, at the top end, India's business schools, Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs) and universities produce globally competitive graduates, primary and secondary schools, particularly in rural areas, struggle to find staff.

The future growth and stability of our global economy depends on the ability of education systems around the world to prepare all students for career opportunities and help them attain higher levels of achievement. However, despite numerous efforts to improve educational standards, school systems around the world are struggling to meet the demands of 21st century learners and employers. In both developed and developing nations, young people have become increasingly reliant on social networking technologies to connect, collaborate, learn and create, and employers have begun to seek out new skills to increase their competitiveness in a global market place. Education, meanwhile, has changed much less. With few exceptions, schools have yet to revise their pedagogy to reflect current trends and technologies. The complexity of this challenge calls for a bold and timely response-a global solution that allows poorer countries to leapfrog costly stages in the development and expansion of their education systems, while enabling schools around the world to incorporate 21st century skills into demanding curricula.

Current challenges and proposals for reform:

Despite efforts to incorporate all sections of the population into the Indian education system, through mechanisms such as positive discrimination and non-formal education, large numbers of young people are still without schooling. Although enrolment in primary education has increased, it is estimated that at least 35 million and possibly as many as 60 million children aged 6–14 years are not in school. Severe gender, regional, and caste disparities also exist. The main problems are the high drop-out rate, especially after Class 10, low levels of learning and achievement, inadequate school infrastructure, poorly functioning schools, high teacher absenteeism, the large number of teacher vacancies, poor quality of education and inadequate funds. Other groups of children 'at risk', such as orphans, child -labourers, street children and victims of riots and natural disasters, do not necessarily have access to schools.

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Furthermore, there is no common school system; instead children are channeled into private, government-aided and government schools on the basis of ability to pay and social class. At the top end are English-language schools affiliated to the upscale CBSE (Central Board of Secondary Education), CISCE (Council for the Indian Schools Certificates Examination) and IB (International Baccalaureate) examination boards, offering globally recognized syllabi and curricula. Those who cannot afford private schooling attend English-language government-aided schools, affiliated to state-level examination boards. And on the bottom rung is poorly managed government or municipal schools, which cater to the children of the poor majority.

Therefore, while education for all is safeguarded by the Constitution, and a majority of people can now access educational resources, the quality of the education that young people in India receive varies widely according to their means and background, which is a worrying and problematic trend.

In India's 600,000 villages and multiplying urban slum habitats, 'free and compulsory education' is in fact basic literacy instruction dispensed by barely qualified 'para teachers'.

The thrust on elementary education over the last two decades and the growing aspirations of poor communities resulting from their participation in a political democracy have already led to a situation where most children at age six are enrolling in schools/learning centers and residential bridge courses.

However, the poor quality of these schools and their rudimentary physical and human infrastructure often lead to children dropping out of the school system without learning or continuing in it with limited learning. An emphasis on food, livelihood and health guarantees is therefore simultaneously required to level out the initial disadvantages of the poor in the educational sphere stemming from malnourishment, poverty and health-related debility.

Thrust Areas

- With elementary education becoming universal, more efforts will be put to provide quality secondary education, parent education, vocational education and teacher education.
- Intensive efforts will be made to provide educational opportunities through distance education using information and communication technologies. Student's evaluation will become more formative and flexible. Curriculum will have a provision to offer cafeteria approach.
- School curriculum will not unnecessary load students. At the same time it will have comparative international standard and promote critical and independent thinking.
- Pre-primary education and early childhood education will become an important element of school education supported through public funds. At present it is offered by non-governmental agencies only at few places. Government's efforts in this direction will also continue through Anganwadis and Integrated Child Development Scheme (ICDS). It will become a regular feature, available to all children.
- Adult education will be of comprehensive nature encompassing functional literary, post literacy programmes and life-long continuing education.
- Universities will take greater interest in college education and support Staff Development Programmes through extension activities and Academic Staff Colleges. Each university will have Academic Staff College which will undertake in-service education of college and university teachers on a regular and continuous basis.
- All educational resource institutions like National Council of Educational Research and Training, State Council of Educational Research and Training, NUEPA, and District Institute of Education and Training will get electronically connected and so will the UGC with its Regional Offices.
- Teacher education programmes, both Pre and In-service, will undergo drastic changes to make them relevant and rigorous. In-service programmes will become more communication technology oriented and will use virtual classroom teaching practices and will utilize internet facilities.

- Educational management will become efficient, effective, sensitive, responsive and performance oriented.
- Income generation projects will become a regular feature of all institutions.
- Preservation, protection and modification of indigenous knowledge and composite culture will become an important objective of education.

Strategies

To achieve the above areas, the same strategies are suggested as illustration. When elementary education becomes universal and adult illiteracy gets liquidated, the education thrust will shift to the remaining two important educational issues, strengthening of secondary education and vocationalising education. These priorities were identified decades earlier but steps taken in achieving these aspirations have been partly inadequate and partly ad-hoc. These need to be reiterated and reinforced here. In such ventures, potential of communication technologies should be fully and optimally utilised.

Networking school-level resource institutions:

This strategy is based on the assumptions that resources are always inadequate, and widely distributed, it is by their proper mobilisation that they can be put together and make a critical mass. At present, there are resource institutions at national, state and district levels. NCERT, NUEPA and NOS are resource institutions at the national level. SCERT, SIE and SIET are institutions at the state level and DIET at the district level. The first requirement is to build a network of these institutions and establish links amongst them.

Building strong educational information management system:

This action area is based on the assumption that in the existing situation most of the actions are taken on the basis of personal liking and disliking, personal preferences and on hunches. If decisions are made on the basis of information available, they would be more objective. Thus developing a management information system is the first prerequisite.

At present there are no Educational Management Information Systems (EMIS) in many institutions. It is now proposed that a mechanism should be designed whereby institutional resources are made available on Internet and anyone who wants access to it, is free to do so. The EMIS could be thought of in various fields, for example they may be EMIS on teacher training institutions, schools qualification of teaching etc. In the first step, teacher training institutions of the secondary level may be enlisted with specific details related to location, address, telephone number, etc. In the second step, various courses offered by these institutions could be made available, in the third step, institutions which have facilities for M.Phil. and Ph.D work should also be enlisted. The point is that the strong EMIS should be built in areas like educational research, education publications, etc.

Making available parent education programmes round the clock

This action area is based on the assumption that parents want to increase their awareness about various educational matters. If appropriate educational awareness programmes are telecast and made available to the general public especially parents, it will help them to become better productive members of the society. A society cannot be considered a knowledge society unless the members of the society have facilities and opportunities for lifelong learning. This demands that there must be programmes for adults, parents, etc. These programmes should be telecast round the clock. Change to digital economy will call for new steps such as need for high speed and large band width networks so as to ensure last mile connectivity. A lot of content centers will have to be set up to accumulate, collect and preserve ancient knowledge. Efforts to preserve folk stories, folk proverbs, folk sayings, etc., should also be made. Attempts should also be made to put some items of curriculum on the Website.

Offering special programmes for gifted and talented students

It is known to everyone that the real treasure of a country is its youth and specially youth who are gifted and talented. Any country which does not nurture the giftedness and the talent of its youth can never dream of becoming a progressive and forward-looking society. There are programmes which are in place that are geared to search and nurture national talent research but they are sketchy and inadequate. It is, therefore, proposed

that to celebrate "knowledge society" the nation must develop a comprehensive programme to identify, nurture and support the talent at block and district level. It should be the duty of the Panchayats as well as of the state governments to identify the talent and create special facilities for their growth and nurturance.

In every district there must be a strong provision for the education of gifted students. To begin with, each district will have schools for the gifted in the area of academic subjects, music, dance and painting and sports. Curricular activities will be so structured that they promote student mobility.

Special Programmes for Girls Education

Providing girls education and ensuring their full enrolment should be the educational objective to be attained in this decade. At present, the dropout rate in class VIII is very high in Bihar, Meghalaya and Rajasthan. Article 45 of the Constitution provides free and compulsory education both for boys and girls up to 14 years of age. Education for All (UNESCO, 1990) highlights education for women claiming that it is impossible to have the educated people if there are no educated women. However, present position is alarming, so special attention is needed to promote girls education.

Education of Scheduled Castes, Scheduled Tribes and other disadvantaged groups

For achieving cohesive and productive society special programmes have to be launched for the Scheduled Castes, Scheduled Tribes and other disadvantaged groups. This can be done by providing positive protective discrimination and also by integrating socio cultural and linguistic specificities into pedagogical and curricular requirements. Contextualization of curriculum is very important if drop-out rate of scheduled castes and scheduled tribe students is to be arrested. Facilities like mid-day meals, incentive schemes and residential schools will have to be augmented.

Inclusive Education for Special Needs Students

Attempts will be made to offer integration education on comprehensive basis for physically and mentally handicapped children. On the international scene the World Conference on "Education for All" (UNESCO 1990) advocated that steps need be taken for education of every category of disabled persons as an integral part of education system. The Salamanca Statement and Framework for action on Special Needs Education (1994) provides for education of disabled children in nearby neighbourhood schools and recommends that children with special needs must have access to regular schools. Inclusive education for special needs students has a wider connotation than merely providing education. It includes combating discriminatory attitudes of students and teachers and creating a community that welcomes inclusive education. One of the important features of inclusive education would be to set up a resource rooms for supporting special needs children in schools.

Special programmes for countries which have Indian-origin population

Countries like USA, Canada, South Africa, U.K, Australia and Caribbean Islands have large population of Indian origin. These people still keep up the Indian traditions and want to maintain their cultural roots. The younger generation in these countries, is keen to know about the culture of India and also their provincial language like Gujarati, Marathi, Tamil, Telugu, etc. It would be most appropriate if suitable programmes are launched for teaching these languages to the willing people as well as exposing them to common features of Indian culture. This is a Herculean task, difficult and complicated but will be greatly appreciated by the Indian people abroad.

Providing and promoting indigenous knowledge

In the knowledge society communities will assess education in quality and utility as per their own norms. The Report of UNESCO Commission on Education (1996) for 21st Century entitled: 'Learning – The Treasure Within' pleads for an education which is 'rooted to culture and committed to progress', Gandhi Ji wanted education to be so rooted that there would be a continuity in the social, cultural and economic environment of life. A sound education according to him would prepare the present generation to take up activities which relate to the previous generation and ensure continuity for the next generation. A sense of pride in the achievements of the predecessors and in the culture of the country is a prerequisite for a dynamic and forward-looking society. He always pleaded for preservation of the culture, heritage and its enlargement for the

posterity. To him, these were most important functions of education. Development of a harmonious and integrated personality would just not be possible if the system does not believe in this philosophy.

Curriculum: Review, Revision and Development

School level resource institutions like NCERT, SCERT, CIET etc., as well as Universities will have to develop a mechanism for curriculum review, revision and development, both at schools and university level, which should expose students to latest global developments as well as to indigenous knowledge. Curriculum should make students aware of positive and critical thinking and the harms of negativity and negative thinking. Curriculum will be so designed that it will not load students; neither with the physical load, nor with the load of non-comprehension, and irrelevance. Curriculum will stress on joyful learning, functional science and functional mathematics. It will not unmindfully reject memorisation. A mechanism will be evolved to ensure that school college and university curriculum as well as the curriculum of teacher education gets reviewed, revised and updated every five years. It may also be stressed that Curriculum in school education provides enough stress and importance to computer education, information and communication technologies and other frontline curriculum.

Adult Education

It is heartening to note that India has attained literacy rate of 64%. We hope by 2020 illiteracy will be totally eradicated. In the subsequent decade comprehensive adult education programmes including parent education will be launched. Adult education as literacy activity should continue till we achieve 100% literacy. India should not copy the western model of adult education but should launch community colleges of a new type which will educate learners to senior secondary level as well as provide life enrichment courses. They would become adult education centers with links with school education.

Teacher Education

Teacher education programmes will be drastically revised. At present, in most of the teachers colleges the teacher education programme (B.Ed.) is of one year duration after graduation. This trend will change and teacher education after graduation will become of two year duration. This is because in one year the knowledge base relating to pedagogy cannot be developed fully. Further, pre-service education should also provide enough exposure to teacher so that they can fully utilise information and communication technologies.

The thrust of teacher education programmes go to developing thinking capabilities in student teachers. In that case present programmes which emphasize memory will be appropriately modified. This does not mean that memory and fact learning has no place in school education. As a matter of fact in the initial years there is a need of memorization and this point has been fully endorsed by UNESCO Report 1996. Teacher education programmes will develop in teachers a new insight about plurality of perspectives. This means each individual is unique and different from the other. There is another aspect which relates to developing collaborative programmes of teacher education jointly by the NCERT, NUEPA, SCERT and DIET. At the moment these different institutions which are research and resource organizations work more or less in isolation (Trist 1983). Complexity and the flux of environment give rise to Meta problems which are different from discreet problems. Meta problems require inter-organization collaborations which provide poly dimensional and multi facet solutions. Thus, it is necessary that institutions like NCERT, NUEPA, NCTE, UGC and others have more collaborative projects.

Educational Management

Education management, for that matter any management system whether in education or defence or industry or health or social sector, has to abandon its *babu* culture. It should optimise resource utilisation rather than saving resources, it should meet objectives and criteria rather than show internal efficiency, it should satisfy needs rather than reduce costs. Management should see a problem in the holistic manner rather than offer solutions for bits and pieces and it should create alternatives rather than follow holy procedures. Education management must become more effective doing the right things rather than being more efficient. Educational management will need a paradigm shift. It must have and create a culture of performance. (Volcker Commission, 1990) and

must show a bias for action (Peters & Waterman, 1982). It has to be efficient, effective, transparent and sensitive to future needs. It must provide single window service facility. The present administrative style would undergo a change. The future administrative configurations will be such that they can be restructured, relocated or co-located. Management will give greater emphasis on appointment of project and contract based staff.

All administrative units will be electronically connected and will have strong component of educational Information Management Systems (EMIS). It should have more decentralization, less bureaucracy and more converging governance. In each State there will be a State Educational Council which would look into the total gamut of activities relating to school from pre-primary to university level. There will also be District Education Councils with appropriate authority and responsibilities. The planning unit will become at District and then subsequently Block level. There will be more convergence of funding.

Higher Education

Universities will give more attention to under graduate teaching. At least 50% of university age learners will receive higher education upto what time. Each university will have some special programmes suited to the genius of that locality. University Education Departments will undertake more programmes relating to extension and research in school education. Links will be developed between school education and higher education.

In many universities teaching at under graduate level is not given full attention. This trend harms university education and must be checked. Most of the teaching in universities and colleges do not keep the potentialities of the learner in view. University teachers often keep only the prescribed content in focus and are unmindful of the learner's abilities to assimilate. University teachers will have to be oriented towards this through Academic Staff Colleges.

Conclusion:

In the changing context of emergence of knowledge economy, educational institutions need to embrace the concept of lifelong education and training. The functional character of education should imply and support the technological society by producing knowledge workers. This requires that the institutions should prepare themselves for addressing the issues of quality education. If India has to emerge as preferred location for higher education in the globalizing world it will have to develop a national policy to address the challenges of sub-standard quality ineffective systems of monitoring and control, red tapism in growth and development and political interference.

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