

KIREET JOSHI

A NATIONAL AGENDA
for
EDUCATION



THE MOTHER'S INSTITUTE OF RESEARCH



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THE MOTHER'S INSTITUTE OF RESEARCH
A9/24, Vasant Vihar,
New Delhi – 110057

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2nd Edition, 2007

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Distributed by :
MIRA ADITI CENTRE
27, Jayalakshmi Devi College Road
'I' Block, Ramakrishna Nagar
Mysore-570022
Karnataka

Printed at Auroville Press, Auroville, 2007
ISBN 81-85137-63-3

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Publisher's Note

In response to the felt need in our country for reforming or even revolutionising education in our country, the Mother's Institute of Research, which is devoted to educational research, has constituted a few working groups, under the Chairmanship of Kireet Joshi. A number of working papers were recently prepared. A selected number of these papers have been brought here together so as to contribute to the national thinking on changes that need to be brought about in the field of education. The first paper in this publication entitled "A National Agenda for Education" is a result of several regional seminars and a national seminar organised jointly by several national organisations such as the Dharam Hinduja International Centre of Indic Research, Rashtriya Jagriti Sansthan, Desh Bhakta Trust and others. The remaining papers in this publication provide reflections on several issues which have been covered under the National Agenda for Education. These papers were discussed on April 22, 23, 29, 2000, at a Workshop for Teachers at Auroville under the auspices of the Sri Aurobindo International Institute of Educational Research. They present a detailed rationale of innovations and reforms that seem to be both necessary and practicable, and it is hoped that they will stimulate fresh national thought and practice in our country.

1. A National Agenda for Education

Preamble

All eyes seem to be set on education.

The contemporary scene of India compels everyone to turn to education as the central key to the road to regeneration. Unfortunately, our educational system is suffering from long-standing negligence and maladies and unless drastic steps are taken to bring about radical and revolutionary changes, it would be futile to expect education to perform any miracle.

The national agenda for education must be conceived and implemented with full realisation that the nation derives its *raison d'être* from the protective wings that it can spread over the children and the youth so that they can grow freely and boldly, imbibing in themselves the rich heritage of the past and cultivating the unfailing power of character and vision to build a greater future.

The values which have been enshrined in the Constitution provide a framework which must inform and illuminate all levels and forms of education. They ensure unity of people of India and promise a great future for all. They provide great inspiration for cultivating work-culture which is currently so sadly lacking and which is indispensable for sustaining the process of growth of the country and for the promotion of excellence in all human endeavours.

We may recall that the great struggle for freedom had in its early moments of resurgence placed national education as an essential aspect of its core programme for achieving India's independence. Now after nearly one century, we feel compelled to go back to the call of national education, since we have failed greatly

during the last fifty years of the attainment of independence in giving shape to that call.

Let us rise once again and make a pledge that we shall do our best and create for the children and youth the necessary conditions and resources. Let us resolve not to fail again.

I. Basic Foundations of the Agenda

1. Character Development

The crisis through which our country is passing today is a crisis of character, and it cannot be met without a radical change in the objectives, contents and methods of education so as to place character development at the centre of our educational endeavour.

There should be a holistic approach to character development. All aspects of personality, — physical, vital, intellectual, aesthetic, ethical and spiritual — should be emphasised. Special emphasis should be laid on moral and spiritual development.

2. Total Literacy; Universalisation of Elementary Education

The promises made in the Constitution in regard to total literacy and universalisation of elementary education must be redeemed without any further delay. All effective methods must be employed and all the necessary resources made available to ensure that we enter the XXIst century with an honourable record of achievement in respect of these first two priorities.

As immediate Agenda for the next five year, all-out efforts should be made to provide access to all children for primary schooling and to ensure that they not only not drop out of the school, but also achieve minimum levels of learning and receive appropriate quality of education. To monitor progress towards this goal at block, district, State and national levels, a set of indicators should be developed by interrelating various qualitative and quantitative data, — such as level of spending on primary education, disparities in access, gender-wise enrolment, attendance rates, drop-out rates, student-teacher ratio, proportion of

expenditure on teaching aids and equipment, assessment of students' achievement, teachers' status, etc.

3. National System of Education

National education must not be conceived as State education. The State must allow the nation to develop its own objectives and contents of education. Teachers, parents, and students must have their legitimate opportunity to shape the educational policy with the help of dedicated educationists. It will, however, be the duty of the State to give highest priority to education and allocate resources to it appropriate to this priority. The State must withdraw its own pervasive control and overwhelming role of the educational administrator.

4. Reforms of Curricula and Examination System

Great reforms of curricula and examination system must be instituted in the light of the innovative experiments that were initiated by the great nationalist leaders. We should also be guided by the progressive ideas which are being experimented upon in the different parts of the world under the inspiration of the goals to establish learning society, life-long education, learning to learn, learning to do, learning to practise, learning to care, learning to be and learning to become.

5. Sovereignty of the Child and the Youth

Sovereignty of the child and the youth is central to a learning society and people should resist vigorously and persistently all the public display and activities which are likely to adversely affect the harmonious and integral value-oriented development of children and youths.

II. Three Immediate Reforms

1. Pre-School Education

During the last fifty years, importance of pre-school education has come to be underlined. The significance of early childhood in the later development of aptitudes and personality has come to be

testified by modern psycho-physiology and close observations. Therefore, education of pre-school age children is an essential pre-condition to any educational and cultural policy.

Pre-schools should not be allowed to degenerate into formal schools, and the character of pre-school must be so fostered that the children are not burdened with any formal learning but are encouraged on lines of creative joy and healthy psychological development.

The State must provide the requisite funds to develop kindergartens, balwadis, anganbadis on a large scale so that all the children of the country receive help and care, all joy of childhood and of the growth through play and happy exercise.

It has to be realised that universal elementary education will be impossible without universal pre-school education.

2. Reduction of Load of Books

The load of curriculum and books on the tender minds of children has become unbearable. Immediate steps have to be taken to implement the latest proposals that have been made to remedy this situation.

3. Care and Education of the Girl-Child

The needs of the girl-child in the process of fostering education at all levels must be given pre-eminent importance so that every girl and eventually every woman in our country finds herself well equipped to make her best contributions in the integral development of the nation.

It should be the duty of the State to provide adequate incentives for the education of the girl-child, — including provision for free uniforms, toilet facilities, mid-day meals, sibling care and hostel facilities, in harmony with the local requirements and culture. The Government should ensure that all the girls from pre-school age up to fourteen years are sent to the balwadis and schools and are not allowed to drop out. They should further be encouraged to pursue higher levels of schooling and collegiate education.

It should be the responsibility of the State to remove all obsta-

cles to the advancement of girls' education. Awareness and social pressure must be applied to persuade parents to send their girl children to school.

Resources of the society should be harnessed to promote education of the girl-child through adoption or sponsorship.

III. Basic Thrust of the Agenda

— *Character Development : Overarching Principle*

The basic thrust of the Agenda will be to underline character development as the overarching principle at all levels and in all forms of education.

All programmes of education should vibrate with an inspiring force to provide value-orientation to skills, temperament and personality so as to strengthen courage and wisdom, harmony and unity, honesty and sincerity, perseverance and efficiency. High level of work ethos should be fostered and the values of responsibility and accountability should be emphasised.

Great values which have been emphasised in the Constitution of India, in the Preamble, as also in its statements of Rights and Duties, should form the basic ground, and the curriculum should be so designed that these values can be concretely related to the pursuit of humanistic studies, science, technology, art and craft.

The argument that education for character development has relevance only to school education and not to higher studies misses the point that it is only at the higher levels of reflection that rational and higher foundations of character are fortified. It is at the higher levels of education that a comparative study of religions and disciplines of spirituality as also standards of conduct and aesthetic pursuit can be emphasised.

Value education is the very definition of education, since the ultimate justification of education lies in transmuting impulses, emotions and thoughts into higher modes of culture. Both in theory and practice, education must bear this fundamental imprint.

IV. Reiteration of Objectives of Education

— *Three Perennial Objectives.*

It has been pertinently asked as to what exactly is the meaning and nature of education. There are several answers to this question, but these answers can be stated in a synthetic form by reiterating certain objectives of education.

It seems that there are at least three perennial objectives of education: (i) education should aim at encouraging every individual to know oneself and to relate oneself with the world as effectively and as harmoniously as possible; (ii) education should transmit the cumulative results of the valuable cultural heritage to the growing generations so as to enable them to carry it forward and to build the paths of the greater future; and (iii) education should encourage a judicious acceleration of human progress.

— *Other objectives relevant to our times*

There are certain other objectives which arise from the immediate needs of the country and of the world.

— *Integral Development of Personality*

At no time in history was the concept of the integral development of personality as imperative as it is today. Total education for the total human personality is imposed not only by the latest trends of holistic thought but also because of the increasing pressure to unite science with humanism and because at the frontiers of highest research, the knowledge of matter and the knowledge of spirit have come to demand mutual understanding and even a synthesis. One-track specialisation is becoming more and more unsustainable, and there is a need to develop integrated educational objective which can be implemented at different levels of education in different forms of education by adopting appropriate strategy.

— *Environmental Care*

As one of the important elements of the contemporary crisis is connected with environment, studies in respect of the themes

related to pollution control, plantation of trees and increasing awareness in respect of the need to protect environment should be promoted.

The objective of improvement in the quality of life by emphasising harmony between human beings and Nature should be underlined. Ecological study should be promoted so as to foster balance between the preservation of ecology and needs of modernisation.

— *Science and Technology*

Since the present civilisation is science-based, it is imperative to promote the importance of scientific, critical and original thinking as also increasing acquaintance, expertise and mastery in respect of the advancing domains of scientific knowledge and technology.

— *Science and Values*

Considering that there is today a growing realisation of the importance of relating science and values, education should provide a special emphasis on this important theme.

— *International Understanding and Peace*

Education for international understanding and peace has, during the last several decades, come to be acknowledged as a very important aim of UNESCO, and not only as a Member-State, but also as a country devoted to these ideals as part of its perennial cultural ethos, we must accept it as an overriding objective of our programmes of education at all levels and in all its forms. We must underline that peace is indivisible and that it is a positive striving that implies rigorous pursuit of cooperation, mutuality and harmony. In concrete terms, education should provide for understanding and respect for all peoples, their cultures, civilisations, values and ways of life. At a deeper level, this education implies commitment to the idea and practice of the One Human Family.

V. Role of the Teacher

The emphasis on education for character development imposes on the teacher a very special responsibility. As character can best be imparted by the living example of the teacher, a high standard of ethos must become an indispensable part of the teaching profession. The country should demand that teachers themselves evolve high standards of self-discipline and ensure their implementation in their daily life, in their relationships with students, colleagues, and people in general, and in their professional performance.

Respect for teachers which had been emphasised in Indian culture, but which has been greatly eroded because of various factors, needs to be resurrected by various means including those which will provide high status and facilities to teachers.

A new programme of training will have to be formulated and implemented. Pre-service training of teachers will require a thorough revision. If teachers are to ensure integral development of their students, they themselves have to be trained to attain higher and higher degrees of integration of their own personalities. Again, since there is explosion of knowledge, teachers have to be trained in the art and science of life-long education, in the art of learning to learn, and in the skills by which the advancing frontiers of knowledge can be brought nearer to their students.

Special programmes for training teachers' educators should be formulated which will provide greater awareness of responsibilities in regard to character development of students and wider visions of the future, up-to-date technologies of education and inspiration for idealism so that they may be able to impart high level of guidance and leadership to the teachers under training.

Corresponding to the higher demands of training, the career graphs of teachers have to be greatly revised, and both the government and the society have to bear the responsibility to provide to their teachers standards that are equivalent to a high quality of life.

Considering that the teacher is the real bridge between the past and the future and carrier of cultural heritage from genera-

tion to generation, it must be expected from every teacher to become a perpetual student of the lessons of history and of the quest of the knowledge by the aid of which greater future can be built.

We speak today of the child-centred education, but only the teacher can really give concrete shape to this concept. For it is only the teacher who can introduce dynamic methods which would place the child in the centre of the learning process.

The role of the teacher will, in this context, be: (a) to observe his/her students, their inclinations and capacities, so as to be able to help them with deep sympathy and understanding; (b) to become an animator rather than a mere lecturer, and to inspire much more than to instruct; (c) to aid students by processes of consultation and suggestion and develop in them inner will to grow and progress.

It is the responsibility of the Government and of the people to provide to the teachers all the material and infrastructural facilities so that they can devote all their time and energy to the progress and development of their students.

VI. Role of Students

While the educational system must provide all the necessary facilities, support and required atmosphere, it would be for the students themselves to make the right use of the aids provided to them. It is by their free will that they have to grow up into self-determining individuals striving constantly towards excellence, not only in respect of studies, but also in respect of integral development of personality, — physical, emotional, dynamic, intellectual, ethical, aesthetic and spiritual.

Students should gradually come to realise that self-knowledge, self-reliance and self-control constitute the most effective means of true self-fulfilment.

Teachers, parents and people in general would expect from the students that they will: (a) learn the secret of self-education, of learning to learn; (b) study and work widely and intensely, study and work with joy and application, progress constantly and thus

learn how to remain perpetually youthful; and (c) become fearless and heroic in the quest of Truth, Harmony and Liberty, and work always at the boundaries of their limitations so as to surpass them by the constant aspiration to rise higher and higher.

VII. Role of Parents

Parents are the first teachers of the children, and the pressure of our times imposes upon every parent to develop all that is expected of a good student and a good teacher.

Parents have to realise that the world is changing rapidly, that the horizons of knowledge are expanding constantly, and that children are growing up in a new atmosphere of currents of culture in which the values of the East and the West are getting blended with a great deal of uncertainty and consequent disequilibrium. It is in these difficult times that parents have to build and maintain bonds of trust with children and guide them with love and understanding, with practical dexterity, and with largeness of mind and heart. They have to harmonise the demands of freedom and the demands of self-discipline.

Among all sections of the society, it is the parents who have perhaps the most difficult role. And it can be fulfilled by means of: (a) continuous programme of training; (b) participation in teachers-parents associations; (c) participation in their children's development processes; (d) deeper understanding of values of Indian culture and how they can be made active under the present difficult conditions where all that is good in the West is to be assimilated, and all that is injurious to our culture and its future has to be rejected; and (e) ensuring that children are protected from exposure to influences that are injurious to their value-oriented development.

Parents should set healthy example of harmony in the family relationships and should take care to avoid gender bias while treating children in the family.

A powerful parents' movement requires to be initiated in our country to undertake, encourage and support programmes that will enable them to discharge their difficult role.

Education for population control needs to be emphasised in the training programmes of all concerned.

Every parent whose child is enrolled in a school should be required to undergo an immediate programme of training, and as their children move forward, they should be required to undergo higher levels of training. Appropriate courses of training need to be devised and implemented.

VIII. Role of the Educational Administrator

The role of the educational administrator is bound to be even higher than that of anyone in this vital field of education. As captains of the educational domain, educational administrators have to be at once leaders, participants and servants. They have to endeavour to guide parents, inspire teachers and serve the highest interests of the children. They have also to raise resources and employ them wisely and with utmost economy. They have to plan the future with boldness of an adventurer and meticulous skill of a goldsmith. They have to keep abreast of the educational developments nationally and globally, and they have to devise and employ various innovations by which the educational system remains vibrant with enthusiasm. Conferences, seminars, exhibitions, displays and cultural activities and various events have to be so organised that they would fill the atmosphere with vision and guidance, with joy, mirth and happiness. They have also to deal with mass media, and by means of various initiatives and programmes of action they have to ensure that these media subserve highest interests of education.

The role of the educational administrator as a principal should be distinguished from that of a manager. Managers should be educationists, and they should undergo training in education so as to give appropriate guidance and responses to the needs of schools, colleges and universities which come under their management. Even educational administrators in the Government should have proper training so that they have the right aptitude to deal with educational demands that come from various educational institutions. Indian Educational Service, which existed at one time, should be revived.

IX. Role of Art in Education

A depressing aspect of our present system of education is that artistic abilities of our children are totally neglected or only marginally encouraged. The first aim of art education is purely aesthetic, the second is intellectual, and the third and the highest is spiritual. Music, art, and poetry may be viewed as a perfect education for the soul. They are, when properly used, great educating, edifying and civilising forces.

Young children with artistic talents should never experience lack of encouragement, facilities and opportunities to develop their talents and to express them; on the other hand, every child should be helped to enter into the domains of art and gain the capacity to understand and appreciate the uplifting role of art.

What is true of art is also true of craft and the educational system should cater to the children's potentialities to develop skills in respect of different crafts.

X. Role of Physical Education

Ancient Sanskrit adage declares: *shariram adyam khalu dharma-sadhanam* — body is the means of fulfilment of dharma, i.e. every ideal which we can propose to ourselves and the law of its working out and its action.

Three important aspects of physical education must be emphasised in the educational system: control and discipline of functions of the body; total methodical and harmonious development of all the parts and movements of the body; and rectification of deformities, if there are any.

Mystery and excellence of the human body should be underlined in the scheme of education so that students feel inspired to marvel at the wonder of body's complexities and remarkable machinery that has a natural impulse towards health and healing.

The neglect of physical education that has ruined our country's vigour and sense of discipline requires to be remedied with massive programmes of development of gymnasia, playgrounds, facilities for sports, combatives and aquatics. Physical education

should not be looked upon as a pastime. It should be related to the ideal of healthy mind in a healthy body. Indispensable knowledge regarding physiology and hygiene, nutrition and proper dieting and useful skills related to first aid and helping oneself and others in situations of physical danger should be a part of physical education. Spirit of adventure should also be emphasised as a necessary part. Great qualities like those of sportsmanship, team spirit, practice of fair play, obedience to the decision of the referee or the umpire, acceptance of success and failure with grace and equanimity, and virtues of hardihood, endurance and perseverance can best be developed through well-planned programmes of physical culture. A nation where young men and women possess robust capacities of the physique, coupled with mental, ethical and aesthetic values can and will assuredly rise higher and higher in providing leadership in all fields of life.

XI. Role of National Spirit of Discipline

The country has regrettably paid minor attention to the creation of national spirit of discipline. Apart from rigorous physical education, there are various means by which this spirit can be generated and nourished. The role that scouts and guide movements can provide needs to be emphasised. N.C.C. and N.S.S. for which some facilities are provided at higher levels of school education and collegiate education, have remained in the periphery, and large majorities of our students remain indifferent to the requirements of national defence and the qualities of discipline, heroism and courage remain depressed.

In several systems of education which are current in different parts of the world, students are obliged to have a compulsory period of training in the defence service of the country, and it is often suggested that every student in our country before getting certification for graduation must be required to undergo similar training in our country.

In the past, when such a proposal had come to be considered seriously at the governmental level, it was argued that the costs involved are extremely heavy and unbearable.

Today, when we see the curse of indiscipline spreading in all sections of society, it seems rather imperative that our country should not only encourage scouts and guide movements but should also oblige our students to participate in training for a minimum period of one year where national spirit of discipline can be instilled. N.C.C. , N.S.S. and some other equivalent programmes of sports or adventure or community which will bring students closer to the life of the community should be offered, and participation in one of them should be essential for entrance to the graduation level.

XII. Contents of Education

A question is often asked as to what are the immediate yardsticks for determining what has come to be called "quality education". It may be answered that it is only when contents and methods of education inspire every child to surpass his or her limitations, that the quality of education attains its distinctiveness. Quality education promotes excellence amongst students, both individually and collectively.

The following aspects of contents of education will contribute to enhancing "quality education."

— *What everyone needs to learn*

If Macaulayan aim of education to produce clerks is to be effectively replaced by what Swami Vivekananda called "man-making education", we have to conceive a new scheme of contents of learning. We have to provide for the essential knowledge that every individual needs to cultivate in order to become truly human and humane, irrespective of and in addition to one's own specialisation. Since everyone possesses a physical body and a psychological complex of emotions, dynamism, thought and will, everyone needs to know the mystery and excellence of the human body, and how to harmonise demands of rationality, morality and aesthetic refinement. One also needs to learn how to practise power of concentration and a noble science and art of living. Everyone needs to be a good pupil and a good teacher, and every-

one needs to learn how to grow into higher and deeper reaches of psychic and spiritual being. These and allied subjects need to be woven together in a graded manner so that they are brought to students effectively but in a very flexible manner throughout the living process of the growth of character and personality.

— *Vocational Education*

Vocational education should be looked upon as an essential part of character development. The secret of vocation or profession lies in personality, and no personality is complete without the development of skills. In fact, vocational education needs to be so redesigned that every student should have the possibility of at least two years' training in the skills suitable to a chosen vocation prior to any terminal point in the system of education, — particularly prior to the end of elementary education.

Unfortunately, vocational education has still not become socially acceptable. This is because the so-called academic courses of education have tended to neglect practical aspects, and vocational courses have been so designed that they are perceived as courses meant for less bright students. It would be advisable to devise certain such vocational courses which would demand a very high degree of brightness from students and teachers, and some vocational courses should be developed right up to the levels of post-graduation and research. Such vocational training should not be reduced to blackboard exercises but must be based on hands-on work. This will call for investment of substantial resources at the outset and the State must come forward to provide for it.

Students undertaking vocational courses should have free and ample opportunities to revert to academic courses, if they so desire.

Higher education programme should be so devised that vocational courses are available to students, and graduate and post-graduate degrees should be awarded to those who specialise in vocational courses. B.A., B.Sc., and B.Com. Courses should be so redesigned that students are able to get their relevant vocational and professional skills developed and chiselled, and thus they

become usefully employable.

— *Holistic Vision*

At present, syllabus for each subject is drawn up almost in isolation from other subjects. This encourages learning by snippets. Hence, a holistic view of knowledge has to be kept in view in formulating curricula and syllabi.

— *Need to update and prune curricula*

On account of explosion of information, there is continuous pressure to update the contents of various subjects of study. Every new concern like environmental care or population control imposes the demand for a new area to be added to the curriculum. However, very little thought is being given to prune those contents which have become outdated or receded into the background. The load on children is being increased year after year because no effort has been initiated to revise and prune the curricula, and there is no agency in the country which is solely devoted to the task of formulating appropriate curricula keeping in view the advancement of knowledge, obsolescence of discarded theories and data, as also the holistic standpoint. There is a need to create a national body of the most eminent experts who could be given this task as a continuing and permanent occupation. This body could be subdivided into groups and sub-groups, but it should be able to provide a wide vision that can guide appropriate connections and inter-relationships between subjects and level of studies.

— *Value Education*

Special care has to be taken, while framing the curriculum, to ensure that the theme or value education receives utmost importance. There is a great need to develop new teaching and learning material in relation to value education. There is a need to set up a National Academy for Value Education which should concentrate on research, training, and publication of teaching-learning materials on subjects related to value education.

Special programmes on TV should be telecast which will bring

to the children and youth the inspiring messages on value education.

— *Indian Culture*

National education should be able to project a true and inspiring account and message of Indian culture. This is an extremely difficult task, and it is yet an extremely important task. Without this, we shall not be able to deal rightly with the powerful external influences which are rushing into our country and creating too much of a mechanical imitation and too much of a sense of subordination and even servitude. To reject unintelligently anything because it is alien is both irrational and injurious. Besides, it is impossible. We have to assimilate with right discrimination all that is good and beneficial for ourselves and for the world. But this means that India has to recover its own centre and find its own base, and do whatever it has to in its own strength and genius. This will involve a great and devoted labour, and ultimately the fruits of this labour have to be translated into concrete terms of the contents of curricula and into corresponding teaching-learning materials.

The national agenda for education must place this task on the top of its priorities.

— *Need to make Studies interesting and understandable*

There is a legitimate complaint that the books and learning materials which are prescribed for studies have been written in such an uninteresting manner that they rarely evoke enthusiastic response from the students. Again, students in our country belong to different backgrounds, and a large number of them belong to a group of first generation learners. A large number of teachers do not themselves adequately understand the books that they are supposed to teach. A serious inquiry into this problem will suggest a radical recommendation which will have far-reaching repercussions on the entire system of textbook production. All those who are capable of thinking and acting in this important area will have to be engaged in meeting this problem.

A scheme of mobile schools with appropriate teaching-learning

ing materials should be formulated and implemented in order to serve the educational needs of migrating tribes and other groups who are required to migrate from one part of the country to another, from time to time.

— *Linguistic Competence*

One of the basic problems in our country is related to linguistic competence that we should prescribe at various levels of education. The present language policy has been injurious to the study of classical languages, and it is becoming clearer that our cultural identity cannot be retained if we continue to neglect these languages. Our culture ethos is deeply rooted in the ancient languages like Sanskrit and Tamil and in medieval classical languages like Persian and Arabic. Our curricula have to be so designed that our students are at least able to appreciate the original resources of our culture.

While it is true that the mother tongue should be the natural medium of instruction, the importance of international languages like English and French have to be recognised, — particularly when forces of globalisation are mounting day by day. In order to eliminate the current barrier to national integration by the insistence on study of the local language, every inter-linguistic migrating child should have the option to take any available Indian/classical/foreign language, and failing these, a vocational course.

A fresh study of the various problems relating to the linguistic competence in the entire educational system needs to be undertaken. Once again, this study will suggest radical recommendations, the implementation of which must occupy a high place among the priorities of the national agenda.

XIII. Methods of Education

— *Need for Innovative Methods*

At the first sight, it might seem that in a situation where even the primary articles of equipment like blackboards are not adequately provided in our primary schools, any discussion or recommendation in respect of methods of education and innova-

tions in this area should be regarded as irrelevant or too premature. And yet, this subject is of great importance, and it must be taken in hand in right earnest.

As a matter of fact, the methodology of education has not received much attention since the time when the British system of education was introduced in our country except during the movement for national education and in the context of the great experiments which came to be initiated and developed under the inspiration of leaders like Maharshi Dayananda Saraswati, Swami Vivekananda, Gurudev Rabindra Nath Tagore, Mahatma Gandhi and Sri Aurobindo. As a result, methods of lecturing and the use of blackboard have remained the only methods of education in our country. If the same old system and old methodologies are allowed to be continued, we shall be running the risk of keeping our children at a great disadvantage, which is bound to result in keeping our country perpetually poor economically, educationally and culturally.

New methodologies of education will require the teacher to become students' guide, friend and philosopher instead of a taskmaster. They will require the child to be consulted in its growth, and encourage concrete experience, experimentation, participative dialogues between teachers and students, project work and library-oriented education. These methodologies will aim at integral development of student's personality and will transform the present schools into nurseries of living souls. Even in respect of the programmes of universalisation of elementary education, new methods will have to be explored. Utilisation of TV, audio-visual education and emerging multimedia systems which are expanding at an explosive rate should be fully availed. The problem in doing this should not be underestimated, since the potential is enormous, particularly so in respect of saving costs.

— *Child-centred Education*

The national agenda for education must, therefore, advocate at least the following elements of what may be called innovative and dynamic methods of education.

a) The teaching-learning methods must look upon the child not as an inert material to be shaped by external pressing machines but as a living entity that is capable of creative participation through questioning, inquiring and through total involvement in the learning process.

b) The child should be treated with great sympathy and understanding, and methods of coercion have to be totally replaced by methods that give room to suggesting but not imposing, to freedom that does not amount to licence, and to discipline that is not external but which grows into self-discipline.

c) A great emphasis should be laid on learning to learn, learning by doing and learning by practising which would require different methods that are appropriate to cognition, affection and conation; and

d) A great emphasis should be laid on self-study, project work, group discussions, community work, library-oriented education, and on activities of adventure and works of manual labour.

— *Need for New Learning Materials*

New learning materials will also have to be prepared which would be appropriate to these dynamic methods of education.

XIV. Counselling Services

The world in which we are living today is getting increasingly impersonalised, mechanised, and those who are in need of guidance find blank and impersonal walls around them creating greater and greater disappointment and even cynicism. There is, therefore, a great need to create agencies in educational institutions and also elsewhere which can provide mature and wise counsel to all those who are in need of it.

Students, in particular, need to have wide ranging advice in respect of their studies, personal problems of friendships and relationships, development of their faculties, availability of opportunities, and various choices open to them for suitable vocations, professions and careers.

There should be an agency to diffuse research results in regard

to the opportunities for jobs and self-employment available in various walks of life. This will also help in counselling students and educational institutions to adjust the intake of students in the corresponding disciplines so as to avoid, as far as possible, unnecessary turnout of successful but unemployable students.

Information should also be made available concerning temporary placement service so that students studying in educational institutions can be helped to find suitable openings for temporary placement and which can be adjusted with the timings of schools and colleges where they are studying.

Environmental care and population control are major needs, and appropriate counselling in regard to them need to be undertaken.

Parents also are in need of guidance, since they confront various problems as to how to deal with their children, their courses of studies, their problems connected with freedom, discipline, adolescence and growing youthfulness. They also need to help their children in respect of their homework and extra-curricular activities. Every parent today is required to become a teacher and has to learn, if not formal methods of teaching, at least those informal methods which are directly relevant to home situations and to character development.

These problems need to be highlighted prominently in our society so that counselling services are made available to students and parents.

Schools may be encouraged to invite experts in various fields to address and interact with students about their expertise and the lessons learnt by them in regard to success or failure, which could provide guidance for the students in finding right lines of their own development.

XV. Problems of Drug Addiction and Aids

A most disconcerting phenomenon which is vastly spreading in our country is that of use of drugs among teenagers and youths. Even the scourge of Aids is spreading in our country.

These problems are extremely difficult, and it is unfortunate

that they receive very little attention. It is, therefore, necessary to study this problem in depth and propose and implement right measures to meet these problems.

A great deal of research needs to be conducted to find out the factors that lead to drug addiction and Aids. Relevant literature on population control and family-life education should be developed, and through wide diffusion of this literature, parents, children and people in general can be provided with the required information and useful messages that will give everyone concerned the necessary guidance regarding the right attitudes and right practice of values, family relationships and general science and art of living.

XVI. Examination System

— *What Needs to be changed*

The present system of examination, as operating in India, has come under severe criticism. And yet, nothing significant has been done to change this system. Unless the present system of examination is abolished, the system of education will continue to be dysfunctional and will promote those attitudes which are opposed to character development. The present examination is mindless test of mindless memorisation. It has sometimes been suggested that not only the present system of examination but examination as such should be altogether abolished. This suggestion has been implemented in some parts of the country as far as the primary education is concerned. But experience has shown that examinations or tests are in themselves necessary, but what is required is a change in the nature of the tests, frequency of the tests, situations of the tests, purposes of the tests and the attitudes which have to be developed among students and teachers in regard to tests.

— *Right Use of Tests*

Tests can be used mainly for: (a) stimulation; (b) providing opportunities to the students to think clearly and to formulate ideas adequately; (c) achieving precision, exactness and mastery

of details; (d) arriving at a global view of the subjects or works in question; (e) self-evaluation; and (f) gaining self-confidence.

If tests are woven into the learning process, the nature and frequency of the tests will depend upon the above-mentioned purposes which are to be fulfilled through the learning process.

Continuous evaluation, if it is wisely conducted so as to prevent constant burden of examination on students' minds, will prove helpful in promoting healthy educational processes. Transparency in examination system is not only desirable but even indispensable for inspiring confidence in everyone, — including teachers, students and parents. When answer books are returned to students after evaluation, they will stimulate students to correct their mistakes and thus they will provide the needed opportunity to make further progress.

— *Tests for Character Development*

It has often been argued that no system of tests can be devised to evaluate students in respect of essential qualities which education for character development aims at, such as those of truthfulness, sincerity, cheerfulness, benevolence, right judgment, courage, self-sacrifice, cooperation and harmony. This argument assumes that the system of tests that is prevalent today cannot be changed or only marginally changed. But, if students are required to maintain their progress reports on those activities, compositions, essays, artistic creation which they have participated in or produced and which in their own judgment are of a high quality, and if these progress reports of the minimum duration of three years, are subjected to scrutiny by a board of examination and further tested through an oral test, it would not be impossible to assess students' performance in respect of character development. Similarly, if every student is required to pass a national physical test, a further avenue of assessment will be available. For maintenance of physical fitness will require regularity and punctuality in respect of participation in activities of physical education. Besides, a process of physical education will very largely contribute to the development of some of the valuable qualities of team spirit, obedience to umpire and sportsmanship.

— *Tests and Teachers*

Teachers will have to play a major role, if new systems of testing are to succeed. Teachers have to accept that testing is a necessary part of their duties, and they have to develop the requisite qualities which are required not only for the examination of written papers but also those qualities which are to be promoted through various oral and practical tests.

— *Entrance Tests*

One of the evils in our country that has recently become very prevalent is that of entrance tests which are being conducted by a number of institutions where students are required to appear, — sometimes in a rapid succession within a short time or even on the same day. This is because major examinations of the country have come into disrepute and it has been widely recognised that they do not really examine the students properly. Employers, too, complain in the same way. Recommendation that has been made since many years that jobs should be delinked from degrees should also be implemented even though there are various difficulties.

— *National Testing Service*

In order to create a new situation so as to meet these difficulties, it may be suggested that tests for admission and for placement in the employment market should be conducted by a "National Testing Service", and they should be open to any one who wants to take them, irrespective of whether they hold any degree or certificate or not. These tests should be related to specific jobs for employment opportunities or certain specific pursuits of studies and disciplines of knowledge and skills. These tests should be three-fold: written tests, oral tests and practical tests. These tests should further be reinforced by the above-mentioned methods of scrutinising progress reports of the candidates, as also by the physical fitness tests, which will provide ready means for assessment of character development.

XVII. Higher Education and Research

Neglect of higher education under the facile suggestion that the State must devote all its major attention and resources largely to elementary education is perilous. While no one would say that higher education should be developed at the cost of primary education and secondary education, it has to be admitted and realised that negligence of higher education will be detrimental to the nation. Education cannot be divided into compartments, and hence, higher education must be regarded as having decisive place of its own; and any opposite argument is an attempt at educational colonialisation and must be strongly resisted. Without higher education, and that too, of a very high quality, we shall suffer from unemployable graduates, incompetent teachers, and second rate or third-rate professionals. Again, the entire world is global, and we have to ensure that the global frontiers of knowledge and research can be nourished in our institutions of higher education.

There is no denying the fact that meaningful higher education is very expensive. The government, therefore, should provide as much as it possibly can towards higher education. At the same time, higher educational institutions should be promoted and encouraged to come up in the private sector. Care should be taken that private bodies do not commercialise higher education, and that no student who is admitted is allowed to drop out because of financial reasons.

Reforms suggested for attitudinal changes among teachers, students, parents and educational administrators will apply equally to all sectors of education, including higher education. Reforms in regard to contents and methods of education as also in regard to examination system have to be carried out with the help of the best teachers and educationists, and even those who have retired from active service, should be provided with facilities and opportunities, particularly in the People's Council of Education, so that they are able to contribute the ripe fruits of their long experience, professional competence and wisdom.

Adequate attention needs to be paid to information technology involving computer science, information science and commu-

nication science, and facilities for developing expertise in information technology should be expended so that the future needs for professional man-power in this field in the country are adequately met.

The problem of accountability is extremely important. And we have to emphasize that accountability has to come from the top. Several examples can be cited to show how the top people, when they demonstrate accountability and personal integrity, various problems of discipline, finances and relationships have been resolved with great efficiency and thoroughness.

A comprehensive scheme of soft loan scholarships, which would, in course of time, become self-financing should be introduced for meritorious but economically weaker students. This scheme should underline that the normal conditions which are imposed while giving loans such as security, etc., are waived for the students seeking loan scholarships.

Areas of research have to be widely and wisely enlarged. Interdisciplinarity and holism are increasingly gaining relevance. It is at the higher levels of research that major themes of the synthesis of the knowledge of Matter and the knowledge of the Spirit can be rightly dealt with so as to meet the growing aspiration in humanity to realise interdependence between science and values and even between science and spirituality.

While encouragement should be given to fundamental research, applied research on themes relevant to socio-economic development should also be promoted. Monitoring of research projects should be strengthened and measures should be adopted to utilise properly and expeditiously the research findings.

There are several suggestions as to what should be the strategy for enhancing and maintaining quality of higher education. People's Councils of Education must attend to these suggestions and help promote consensus in regard to them so that agreed proposals can be implemented as speedily as possible.

XVIII. Let us not forget the Essentials

— *Care of the Living Soul of the Child*

Let us not forget the essentials. Gurudev Rabindra Nath Tagore has given us an instructive short story "The Parrot's Training", the moral of which is that whatever structures we may build for education, whatever facilities and opportunities we may create for students and teachers, nothing will be of any real use if we forget that education should subserve the highest interests of the child who is a living entity. And if we place the child in a system that would imprison its free and living movements and if we stuff the child with plethora of materials, the child will get suffocated and may even wither away.

Let us, therefore, create for our children and youths nurseries of living souls where they can blossom like smiling and shining flowers spreading their fragrance by their vibrating freshness and youthfulness.

This shall be the soul of the national agenda for education.

2.

On the National Agenda for Education

The National Agenda for Education makes an appeal not to forget the essentials. For the burden of reforms that are being put forward by the Agenda could be so great as to make us oblivious of the essentials. We need to stress that to place the child and the youth in the centre of nation's attention is the most important message of the Agenda. It has been stressed with the greatest possible emphasis that the country must declare the sovereignty of the child and the youth. At a deeper level, however, we need to remind ourselves of the most instructive parable of Gurudev Rabindranath Tagore, where the training of the parrot is so designed that under the weight of the learning materials, the parrot itself gets suffocated and becomes dead. The lesson that has to be learnt is that the child has to be aided but not stuffed; the child has to be given the atmosphere of fresh air but not imprisoned; the child is to be trained to learn how to live and live greatly, but not to weaken it and to smother his breathing power. The greatest educational reformers in the world have striven, like Gurudev Rabindranath Tagore, to invent a new mode of education that employs life itself as the teacher of life. Experiments of the past that aimed at this invention have given us precious lessons, not all of which have still been assimilated. The need of today is to collect the results of those experiments and to build up once again with a new spirit and unfailing faith a true and living national system of education.

The Agenda rightly emphasises the goal of universalisation of elementary education and the importance of the girl-child. Here, no argument is required; these goals are entirely obvious, and what is needed is a massive action on the part of the people.

But that is not enough. Therefore, the Agenda makes several specific innovative proposals. These relate to the over-arching

importance that needs to be laid on education for character development, reformulation of educational objectives — perennial and contemporaneous, — child-centred education, new methodologies, new contents of education, national value of art education, importance of physical education and the necessity of the development of the national spirit of discipline. The Agenda does not rightly go into details. For the Agenda for Education should not turn out to be a Manual of Education.

But the goals of the Agenda will be greatly advanced, if we can stimulate fresh thinking and fresh enthusiasm for a new effort to redesign education. It may, indeed, be argued that what we need is not redesigning of education but ensure that the present system of education is made to work by two simple remedies: namely, to make teachers teach and to make students study. Let us not dispute that these two remedies are essential, but let us realize that as long as we cling to the present system of education, they will elude us. For the present system has an in-built mechanism for a downward gravitation: it is mechanical in character and can only invite more and more mechanisation and therefore greater and greater dilution and deterioration.

The strategy that the Agenda proposes underlines, indeed, the need for new motivation, — not only among teachers and students but also among parents, educational administrators and among all who are related to formal, non-formal and informal education, — such as those connected with television, journalism, book-writing and others. The Agenda has provided specific precisions as to in what direction and in what manner the new motivation has to operate; it has also outlined the new roles to be played by all the concerned.

The strategy also envisages the setting up of certain new instruments which can facilitate the redesigning of education. It pleads for the setting up of an instrument that would set in motion the formulation of new curriculum for education that could ensure the right emphasis on vocationalization and development of skills as also development of character. It aims at a curriculum inspired by holism at every terminal point of education, and which would yet take care of adequate specialization

appropriate to each individual's growth and employability. It also aims at enabling students to equip themselves to arrive at frontiers of knowledge and which would yet prune the load in such a way as to reduce the burden of books. Finally, it aims at a curriculum which takes care to transform information into knowledge and knowledge into wisdom.

It also pleads for the setting up of a National Testing Service which would lay down high standards, — not only in terms of academic achievements but also in terms of character development, development of skills, work ethos and development of growth and creative talents. This new instrument could also help in resolving problems related to entrance tests, and even ordinary tests with which our schools, colleges, and universities are fully occupied, — which they need not be. This testing service could be so designed that students can freely take tests when they are ready for them and they could be tested in various innovative ways which our present system does not and cannot design and implement.

The Agenda also pleads for the setting up of a National Commission for Education which could act as a people's commission and which should create and sustain a national system of education instead of a State system of education. This commission should be so conceived that it should be broad enough to oversee with effectiveness and efficiency all aspects and forms of education. It will have the possibility of encouraging all sectors of education, of organising conferences, seminars, exhibitions, by means of which nation's attention gets constantly focused on the welfare of children and youths; it should have such authority as to effectively deal with wrong practices and acts of injustice so that unpolluted atmosphere reigns in educational institutions. It should also have the power to implement schemes of innovations in education and utilization of TV and other media and preparing the right materials of education.

The Agenda speaks of the concept of the national system of education. As you all know, the idea of the national system was born in Bengal in the first decade of the century and the programme of freedom struggle conceived by the nationalists had

placed the creation of national system of education as its integral component. The National Council of Education was set up; the first national college was established, and Sri Aurobindo was its first Principal. Sri Aurobindo also wrote a series of articles on the national system of education. And yet, even when the freedom was attained, the concept of the national system of education did not come to be concretised, and the question of implementing such a system did not even arise. This shows how much work needs to be done by us today and tomorrow. Our present system of education is not even a system of education, if we are to define education properly; to transform what is called education into a national system is a gigantic task. There are bound to be wide ranging views on this subject, which we should welcome and try to integrate. The national system will also need to be integrated with what can be called international education, which has developed a great deal during the last several decades, particularly with the growth of internationalism, mingling of cultures and needs of globalisation. The great studies which had gone into the making of reports like those of "Learning to Be" and others have also to be assimilated. We need to impart to coming generations a new spirit, vision and capacity which will enable them to be at once patriotic and universal — something that was visualized by Gurudev Rabindranath Tagore for the aims of Vishwabharati. Men and women of the future have to be universal, and our national system of education must nurture such new types of human beings. This is the task, which is both immediate and distant.

As we all know, the present curricula of studies have a very narrow base, and they have been centred on a few subjects, mainly geared to the production of clerks, lawyers, doctors, engineers, teachers, and so-called educated people. These curricula were again framed on a linear basis, largely unmindful of the development of talents and skills, character and personality, psychological interests and rhythms of development. Practically, no attention has been paid to the deeper rhythms of cyclical processes of learning and processes of expansion, reinforcement and maturation which are needed for real mastery. Again, our programmes of

studies do not take into account the varied requirements of different backgrounds of students, their environment, their aspirations, and their natural and cultivated capacities.

A review of the present curricula in a holistic perspective is a necessity both for immediate purposes and for long-term purposes. Even if the task itself may take a long time, beginning has to be made now, and the beginning itself must be conceived on a secure and well-founded basis.

Closely connected with the review of curriculum is the task of preparing appropriate learning materials. This, again, is a gigantic task, and it cannot be left merely to piece-meal programmes. All concerned in the country need to come under a national umbrella and provide guidelines as to how new learning materials should be prepared and how different media such as TV could be utilized for the transmission of these materials. At present, we have no machinery by which the best leaders of education can be involved or can have interaction with the actual processes of the preparation of the learning materials. We remember with pride how the great Vidyasagar wrote for children and how Gurudev Rabindranath Tagore wrote on astronomy for students. This happened before India became free, and we can legitimately ask why such a thing should not happen at a national level in free India today.

Methods of education and contents of education have organic relationships with each other; both affect and determine each other; and when we are thinking of development of a new system of education, we need to take into account what revolutionary changes have to occur in the present methods of classroom teaching and learning. Methodologies of exploration, of discovery and invention, methodology of dialogue and active participation; and methodologies of learning by doing and learning by practising have also to be kept in view.

Evidently, major changes in contents and methods of education will imply major changes in programmes of teachers' training. To expect fulfilment of great goals of education without preparing great teachers is a vain chimera. To expect teachers to do great things without giving them a great status in the society is also a vain chimera. Therefore, our country needs to launch a pro-

gramme which will ensure higher welfare of teachers and also higher levels of training for them. Even the curricula and the methodologies appropriate to teachers' training programmes will also need to be reformulated, updated, and even revolutionized.

These are some of the implications of the Agenda that is now before us. It is easy to dismiss the ideas of revolutionary changes as utopian, unrealistic and impracticable. But the distance between the practicable and impracticable can be bridged by perceptions of what is necessary and by determined will. We need to have courage to discard that which is dysfunctional and construct the roads and bridges that can transform great dreams into actualities. In any case, all of us are required to awake and consider seriously how best we can serve our children and youths.

The greatest challenge is to conceive and implement education for character development. For it is increasingly recognised that the present crisis is a crisis of character and that this crisis cannot effectively be met except through right processes of education that would enable younger generations to imbibe voluntary orientation towards values. Unfortunately, it is precisely this value-orientation that has been prevented from coming into the forefront as an overarching principle of all education. Arguments are being advanced which create confusion, doubts, and sense of impracticability, — although these arguments are not without force. But even admitting the force of these arguments, the truths of value-oriented education need to be emphasised, clarified and implemented. The argument that values cannot be taught has a force; but it needs to be clarified that values can still be taught or value-orientation can certainly be implemented if we do not confuse education for character development with education for certain do's and don'ts, and instead, we propose the methods of exploration, free discussion, undogmatic search for three greatest values of truth, beauty and goodness, leaving everyone to define these three words in accordance with the conclusions that one may arrive at after exploratory search in regard to them. What is important is to present the dimension of values; we are not called upon to prescribe certain specific values or certain prescribed acts. Just as it can be said that swimming cannot be taught by lec-

tures and yet swimming can be taught by certain specific methods which are appropriate to the art of swimming, even so there is meaning in saying that values cannot be taught, and yet we may design the required atmosphere, attitudes and spirit of inquiry as also opportunities of personal experimentation and practice so that values can really come to be practised. Value-oriented education gets often clouded by controversy over religious education, because we have not taken the trouble to distinguish between moral and spiritual values on the one hand and religious sectarianism on the other. Again, value-education is attempted to be confined only to moral values, which are declared to be relative, without considering that relativism permits pluralism but not vacuum, and that values are not exclusively related to the field of morality, but they extend also to the fields of physical education, vital education, aesthetic education, intellectual education and even to higher realms of human personality.

In fact, value-oriented education, when rightly understood, opens up a wide scope so as to become co-terminus with integral education. Development of integral personality has come today to be recognised as an indispensable aim of education, and it needs to be realised that integral development of personality implies harmony, and that this harmony can be achieved only on the basis of harmony of values of physical well-being, of vital force and heroism, of intellectual clarity and universality as also those of creativity, beauty and inalienable oneness. This is a vast subject, but because it has not been discussed sufficiently, the subject has remained impracticable and even neglected. The Agenda for Education has, therefore, declared that education for character development has to be placed at the centre of our educational endeavour, and we should be ready, as a consequence, for a radical change in the objectives, contents and methods of education.

Closely connected with the issues of education for character development, we have in India a pressing problem arising from a powerful battery of foreign influences which are radiating in our country, and if they are not rightly dealt with, they can injure our cultural identity and make us incapable of accepting and assimila-

lating those foreign ideas and motives which can help us in recovering ourselves as also in enlarging ourselves. The National Agenda makes a distinction between helpful messages from the West and those foreign trends which can injure us if we do not recognise them. It points out that the messages from the West of liberty, equality and fraternity, if rightly received and assimilated, have the power to rejuvenate our individual and collective life; it also welcomes the Western messages of original, critical and scientific thought; it also stresses the Western insistence on creativity, prosperity and unity. On the other hand, it warns against the Western ideas of economic barbarism, vulgar sensuality, and lifestyles which have already begun to invade us from outside and to ruin our sense of sacredness of human relationships. The Agenda reminds us that throughout our history, our culture has honoured the spirit of sacrifice rather than that of consumption; it has asked us to choose the good rather than the pleasant, — shreyas rather than preyas, — and to strive for liberation from egoism rather than to worship selfish self-centredness and narrow competitiveness in self-assertion. The Agenda has, therefore, made special appeal to the youths and teachers to become vigilant so that we are not swept off our feet even while we grow from within and assimilate all that is helpful whether that comes from within or without. It counsels the youth to accept the austerity of vigilance, to study Indian culture properly and while retaining our true Indianness, we should be able to receive the new light that is bursting forth all over the world.

Finally, we must take into account very seriously the question of finances for education. This is an extremely difficult task and a number of considerations have to be taken into account before spelling out the needed requirements and how they can be met. The Agenda and the Resolution indeed lay down one most obvious thing, and that is that highest priority must be accorded to education and the immediate goal for the government should be to allocate at least six per cent of the G.D.P. to education. But this is not enough. Finances are and will always remain scarce and we have to be very careful in making exaggerated demands. At the same time, if education has to be the fundamental agent of

change and change for the better and the higher and the nobler, — the country cannot afford to deal with budget for education in a piece-meal or ad-hoc manner. One of the most important items on the Agenda has to be that of a massive programme of teachers' training and revolutionary change in the curricula meant for teachers' education. Massive investments and expenditure have to be envisaged for generating the national spirit of discipline. Those aspects of education which have remained neglected so far, as a result of which our nation has become lopsided and even weak, cannot any further be postponed to a future date. These relate to infrastructural facilities and to art education, physical education and information technology.

Unfortunately, our country has a very poor planning as far as education is concerned. Our country does not know how many new universities, colleges and schools will require to be developed by the turn of the century; we feel merely satisfied by declaring that we should not expand, even though we know that population is expanding, peoples' aspirations are rising and demands for education will remain irresistible, considering both our real needs as also those which are encouraged by the kind of polity and politics that we see developing in our country. We must have a realistic look at our needs and demands.

We also need to turn to private sources for financing education. But while doing so, we have to be extremely vigilant that while those belonging to stronger sections of society are required to pay, others belonging to weaker sections are so subsidized that no meritorious student is deprived of educational opportunities for want of financial back-up. The Agenda and the Resolution have pointed out that in regard to professional courses of education, rich sections of society should be required to create a special fund through appropriate taxation policy, so that adequate subsidy can be provided from that fund to meritorious students belonging to socially and economically weaker sections of the society. At the same time, it has been made clear that the government should not be allowed to shirk its responsibility in regard to education; it should uphold the cause of social justice as the guiding principle in matters of financing education.

We should also, — and this is the last point that I should like to make, — take care that education is not divided into compartments, and in the rush for fulfilling the most imperative need to provide primary and elementary education, we should not forget that higher education has its own decisive place. The Agenda rightly points out that without higher education and that too of a very high quality, we shall suffer from unemployable graduates, incompetent teachers and second rate or third-rate professionals. All aspects of education and all levels of education have to be given their due place, and all of them must receive adequate financing. There is no escape from a very hard work for all of us when we consider the financial aspect of education. In fact, many programmes suggested in the National Agenda are gigantic, and they all require gigantic efforts, — particularly from all of us who are educationists, teachers, responsible parents and public workers.

3.

Objectives of Education and Promotion of Excellence

I

Pursuit of excellence depends on three factors. First of all, it depends upon the cultivation of will among all to work on their own limitations and to surpass them; secondly, it depends upon progressive understanding of the principles underlying the process of self-exceeding; and thirdly, it depends upon clearer perception and commitment to the higher goals of individual and collective welfare. And, if we look at the educational history of thought and practice, we shall find that glorious periods of education have been marked by the participation of people in combining these three factors. In our own time, after a long period of slumber of indifference, people are awakening, and educationists are being invited to provide the needed inputs of thought and guidelines in order to bring about major changes in the educational situation and in the educational system so that children of today receive the best possible help to shape themselves and equip themselves with qualities, talents and capacities that are required to meet the difficult transition towards the ideals that humanity must pursue both for its survival and for its fulfilment.

At the international level, UNESCO has given to the world two extremely important reports, which have provided powerful stimulus to the determination of goals of education and strategies that should be adopted to usher in at the threshold of the next millennium a new design of education that would foster learning society, life-long education and mobilisation of resources at the service of primacy of education. "Learning to Be", — under the chairmanship of Edgar Faure, — the first report brought out by UNESCO in 1972, stands out as an excellent formulation of a

call to humanity to the truth that entire life should be looked upon as a process of learning and that the fulfilment that humanity is seeking can flower only if human beings strive to develop complete personality, the core of which lies in the light that can enable them to grow in their true being. The twenty-one elements of strategies of innovations and search for alternatives articulated by this Report underline not only the practicability of the new model of education, but also stimulate courage and heroism among all partners of education. We have now in 1996, the second Report under the chairmanship of Jacques Delors to UNESCO for the XXIst century; it is another milestone that invites us to a journey into the depths of learning, the inspiration for which surges out from the treasure that lies concealed within ourselves. "Learning: The Treasure Within" gives us, in effect, a refined analysis of learning to be. Jacques Delors' Report does not overpass Edgar Faure's Report, but it provides enrichment and emphasises the theme of new tasks for UNESCO, and in consequence, for Member States. These are also the new tasks that we, the people of the world, need to undertake to ensure that the young people whose future is entrusted to us as parents and teachers, grow up in knowledge, in courage, in caring for each other and in the abilities to work hard and to work meaningfully in the service of genuine culture of human unity and universal peace.

A striking contribution of the Report of Jacques Delors is its statement of the four pillars of education, namely, learning to know, learning to do, learning to live together and learning to be. These four pillars of education have been expounded so as to elucidate a broad and encompassing view of learning that would go beyond an instrumental view of education and emphasise "the development of the complete person, in short, learning to be."

II

These four pillars of education, if understood properly and implemented boldly, can promote excellence at all levels of education. Analysis of these four pillars that has been presented is

understandably not exhaustive but only indicative. We are, therefore, free to analyse them in the light of our own needs and in the light of our own cultural heritage. We may even rearrange the position of these pillars in their interrelationships. We may even venture to suggest that learning to be is the roof rather than a pillar, and that this roof stands on pillars of learning to know, learning to do, learning to live together and, we may add, learning to venture.

Let us analyse these four pillars and that roof so that we may gain a fresh review of the process of learning and derive from that review the required lessons for excellence in education. There are, we might say, four elements in each of us, even though all of them are at different levels of development and different levels of interrelationship or integration. In terms of Indian psychology, we have the concept of fourfold personality, — personality of knowledge, personality of heroism, personality of harmonisation and personality devoted to works and service. It is when these four personalities reach the level of a progressive equilibrium, a progressive combination and progressive synthesis that we begin to experience what can be called self-possession and self-being. One-sided personality, even when developed greatly, leaves a chasm and, therefore, a potentiality of conflict, restlessness and sense of the lack of being. It is when knowledge rises to heights of wisdom and when wisdom inspires heroism and bursts into love that harmonises and produces tireless labour to work productively and artistically that our true being begins to bloom in fullness and we become free from egoistic limitations and become a harmonious wave of a universal ocean that is our true being. To be is to be integrally and to be at the top of our abilities. In other words, to be is to be excellently and perfectly.

It has been rightly pointed out by Jacques Delors' Report that learning to learn is a preface or an antechamber of four pillars of education. And it is rightly pointed out that science of learning to learn is the science that teaches how to concentrate. We are reminded of Swami Vivekananda's remark that once the secrets of concentration are learnt, we have the key to the entire field of knowledge and the entire field of self-possession and self-realisa-

tion. In the Indian heritage, the power of concentration was discovered long ago, and the process of meditation is to be found even in the earliest hymns of the Veda. It would, therefore, be salutary to welcome the modern emphasis on learning to learn and to encourage amongst students and teachers the powers of concentration. Unfortunately, in our system of education where great loads of books are imposed upon students, every educational activity tends to be conducted under stress of hurry and anxiety, — which are the enemies of right process of concentration. The right process of concentration avoids two extreme vices, — the vice of slow and lethargic *tamas* or inertia and the vice of feverish and anxious haste, — the characteristic of what we call *rajas*. It is by the development of the state of *sattwa*, equilibrium and harmony and of light, that we can create in the child's psychology the right condition of concentration. Cheerful calm, joyous and patient work and the urge to do every task as perfectly as possible, — these require to be fostered in the atmosphere of our schools and among our teachers and students.

Learning to learn also implies what may be called learning by practising. In fact, concentration and conduct of practising go very well together. We believe quite wrongly that the end of learning is to arrive at mere thinking and theorising. As a matter of fact, the real utility of thinking is not to achieve the power of abstraction, which is inevitable in the process of thought, but in arriving at the power of observation, detachment, impartiality and self-consciousness which can stand above the processes of thought and realise the being as the source and master of becoming. Process of thought, should, therefore, be encouraged and capacities to reflect and to ratiocinate through words, symbols and abstraction but we should also encourage self-awareness. This is best promoted when the learning process joins abstraction with concreteness and joins theory with practice. In our inadequate system of education, very little scope is allowed to practise what is learnt, and to internalise articles of knowledge that are presented as objects external to our being.

In other words, education must start with concreteness and even though the flight may lead us to abstraction, it must end in

concreteness of experience and enrichment in internalisation. This is a truth that is especially relevant to what we call value-oriented education. It is easy to talk of virtues but the real virtues are those which go deep behind the outer surface and become embedded in the very heart and spirit, in the internal being. And this is impossible without the art of learning by practising.

III

Let us now come to the four pillars of education.

As far as learning to know is concerned, the first question is to get a more precise idea of what we mean by knowledge. It is widely acknowledged that there is distinction between information and knowledge. For information consists of any article that is presented to our awareness and which is grasped as such, while knowledge implies awareness of facts in their interrelationship, their context, their significance and their meaning as also intellectual and critical reflections thereon. In our Indian tradition, the word knowledge is applied to a state that lies beyond the intellectual activity of the mind; knowledge then means a luminous growth into the higher state of being by the outshining of the light of the integral Reality. Knowledge is the light by which we grow into our true being, — not the knowledge by which we increase our information and our intellectual riches. The Indian tradition admits that there are different kinds of knowledge — scientific, psychological, philosophical, ethical, aesthetic, worldly and practical. It is emphasised that these forms of knowledge also help us to grow, but only in the becoming, not in the being. It is further underlined that these forms of knowledge, too, can be used as aids to real knowledge but the real knowledge is that which is a secret to the mind, of which mind only gets reflections but which lives in the Spirit. This real knowledge is also what is called wisdom, although the connotation of wisdom includes the higher fruits not only of learning to know but also learning to venture, learning to harmonise and learning to do.

Again, in India, we have pedagogy by means of which learning to know can gradually be transformed into learning to develop

intellectual knowledge so as to mature into wisdom. This pedagogy needs to be brought into the forefront and applied in our dealings with students, with subjects of studies and with the methods of teaching and learning. It is only when this task is undertaken that we shall be entitled to claim that we have begun to impart to our system of education what can be called its true national character.

Logically, learning to know is immediately connected with learning to venture, which I should like to distinguish explicitly as the second pillar of education. In the Delors' Report, this pillar is implicitly admitted, but it has not been brought out with a special and distinct emphasis, which it deserves. For, basically, all education is an adventure. This is seen very clearly in children's activities of learning. Even to be able to stand up firmly implies an adventure on the part of the child; for there is an exposure to hazard and risk. In fact, all education is a plunge into the unknown; all education implies the development of the power to stand up and to face difficulties and obstacles. Education is incomplete if it does not provide to the learner the capacity to battle with difficulties in order to overcome them, the courage to protect the right and eliminate injustice and causes of conflict. Learning to venture aims at heroism that is prepared to endure with equal fortitude honour and dishonour, success and failure, happiness and suffering.

We speak today of management studies, but the real art of management stems from learning to venture, since it is due to that process of learning that one becomes capable of enterprise, of the art of organization, of building systems of control and governance. We speak of the need to build the defences of peace in the hearts and minds of men and women. But the building of peace defences will depend upon the spirit of courage and heroism.

Logically, again, learning to live together and learning to live with others should be reckoned as the third pillar of education. As the Delors' Report points out, this type of learning is one of the major issues in education today, and this implies, at one level, gradual discovery of others, and, on another level of experience,

of shared purposes. This type of learning enables one to discover the spirit of mutuality and solidarity. In the Indian heritage, it is recognised that the real road to progress lies through sacrifice and that sacrifice involves a continuous chain of mutuality. Everything depends upon the other and, as we understand in the context of psychological balance, nothing in economy of Nature of which human being too, is a product, is without use or meaning. It is by mutuality that the whole world lives and survives, and it is only by learning to live together that we can contribute rightly to the living and survival of ourselves and others. The ideal of *shreyas*, which is so greatly emphasised in Indian culture, is rooted in the principle of togetherness, which can be sustained only when we learn the art of exchange, the art of harmonisation and the art of mutual interdependence.

In this context, it may be useful to know that there is one domain of education, which is largely neglected in India, in particular, which can be a great help in building and sustaining this important pillar. This is the domain of physical education, where even the most elementary exercise like drill demonstrates the necessity of co-ordinated and mutual action of all the participants. Sports encourage greatly what we call team spirit and a number of sports can never be won without disciplined manifestation of the dependence of each player upon the other. If, for nothing else, physical education should be encouraged and developed for fostering learning to live together.

The fourth pillar of education is, of course, learning to do. This is the fourth and the last pillar but, therefore, not least important. In the ultimate analysis, world is nothing but the world of work and, however much one may have wisdom or courage or mutuality, all this will have no meaning if it is not translated into productivity and creativity. To learn to produce and to create — and thereby to sustain the rhythms of world-activity should be perceived as an indispensable element of the learning process. No one can really be productive and creative if one does not learn and master what can be called the technology of work, and every technology of work implies refinement of skill and application of skill not only with care but with detailed care.

There are personalities that tend to neglect details and they feel superior that they care only for generalities and leave details to others to work out. In terms of personality, this should be regarded as a serious lacuna. Learning to do implies learning to do thoroughly and to work out the given work in all its details. Learning to do teaches us discipline, punctuality, co-ordination of every element with the other and a living sense that no detail is forgotten or omitted before presentation of the assigned work.

Learning to do also implies an enlightened sense of service. We are here in the world not only to contemplate and become heroic and help each other but, fundamentally and essentially to serve each other. In India, we have the concept of *dasanudasa*, servant of servants. Learning to do really implies: learning to become an obedient instrument through which the higher goals prescribed by wisdom can be actualised. And in our pedagogy, we must underline the need to develop in the totality of personality the true modesty and humility so that the coming generations are imbued with the sense of service and the sense that we are all part of an army of labourers working out together some great design that the higher knowledge and wisdom perceives and proposes.

IV

We may now come to what I have called the roof of education. Learning to be is a process of learning that permeates every other process of learning and overarches them in a pervasive and climactic manner. For to be is to be integrally; it is the goal and fulfilment of every other process of learning. Learning to concentrate and learning by practising find their ultimate *raison d'être* in learning to be. The process of knowledge should lead to self-discovery, self-possession and the fullness of experience of being that is free from narrow limitations of egoism and from barriers to ever-expanding progression. Learning to venture brings out the capacities of our inmost self to work on the limits to transcend them in higher and higher realms of excellence; and it is in the heights of excellence that our being is experienced in its true fulfilling glory. Learning to live together results in the discovery

of the self and its true equations with others until we arrive at an experience where, in the words of Ishopanishad, the Self is found in others and others in the Self and all as an expression of the Self. This again is the top experience that we arrive at when our being is integral and where the barriers between oneself and the others are broken down in ever-increasing mutuality, interdependence and underlying oneness. Learning to do brings out from our being its productive and creative energies and we discover ourselves in a state of a servant that obeys the master-motive of universal welfare. This also brings out a fulfilling revelation of our true being.

In the process of learning to be, we are constantly required to integrate harmoniously the demands of knowledge, of heroism, of mutuality and of works of service. And this harmonisation is no mechanical process but an organic process that respects each individual's rhythms of development which, in Indian psychology, are called rhythms of *swabhava* and *swadharma*. In this process, individualised learning and variations arising from each one's special needs of growth and of the integration of the different aspects of personality are indispensable. Integral being is being of unity and this unity can be arrived at only if individual rhythms of growth are respected and if different parts of the being are gradually woven together under the stress of the needs of each aspect of the being expressing themselves spontaneously.

Learning to be is learning to be wise. Wisdom is the fruit of maturity and maturity can be measured in terms of accurate discrimination between the apparent and the real. To be wise is to dwell in Reality, to be wise is to remain ever-young with courage and heroism with ever-developing adventure of the conquest of the right and justice; to be wise is to be an ever-helpful friend whose hands of co-operation are always extended in harmony and self-giving compassion; to be wise is to be indispensable instruments whose labour and creativity flow tirelessly in effortless obedience to the cause of the good of all and of the richness of existence.

Learning to be is fulfilled when it can generate in the world personalities that are integral and wise.

V

The above analysis brings out in specific terms various qualities that need to be developed through the educational process, and it is the enrichment of these qualities that can impart excellence in education. It is obvious that our present system of education is too rigid and too narrow to allow teachers and students to build the real home of education consisting of the four pillars and the roof of which we have spoken here. Nonetheless, much of what may seem to be utopian here can still be accomplished if teachers can be filled with a new inspiration and if they do not allow rigidities of the present system to come between them and their students. For, in the ultimate analysis, what can overcome obstacles in the path of progress is the living relationship between the good teacher and the good pupil.

4.

Primary Education: Vision, Objectives, Problems and Recommendations

I

In India, we have been striving to increase allocations to primary education, and we notice that sixty-five per cent of the plan allocation for the year 1999-2000 has been earmarked for elementary education. A new initiative has been envisaged for participation of the girl child. Allocation to operation black board has been enhanced from Rs. 304 crores to Rs. 400 crores and allocation to DPEP has been increased from Rs. 727 crores to Rs. 754 crores. A sum of Rs. 160 crores has been assigned to the national strategy for participation of girls and there has been an upward revision of the existing schemes and also for upgrading infrastructural facilities. Out of the plan allocation for education for the ninth five-year plan, which amounts to Rs. 20381 crores, Rs. 7937 crores is allotted to primary education alone, and the programme for universalisation of elementary education has received the allocation of Rs. 3035 crores. These are significant figures, and it is also significant that to non-formal education, which is indispensable for effective primary education in our country, Rs. 350 crores have been allocated.

But we all know that mere financial allocations cannot deliver the goods. Central factors that determine the success of educational programmes are related to the quality of teachers, the quality of teaching-learning materials, and the quality of the strategies of addressing varieties of target groups which present specific needs and require specific solutions.

In India, like many other developing countries, we find that a large number of children are first-generation learners and the usual teaching-learning materials, which have been standardized

for urban children or for third or fourth generation learners, are simply irrelevant. Again, we have problem of retaining children in the school system, and we have as yet no ready solution for this and allied problems. It is the painful fact that out of about twenty-one crore children in India, only five or six crores complete elementary education, and a very large number of others drop out at earlier stages of primary education. In many countries of the world, this kind of problem does not exist, but still wherever it exists, it is imperative that effective solutions are suggested and effective strategies are evolved and implemented. This is where researches in school effectiveness at primary stage occupy central significance.

II

It is often argued that our immediate problems are so pressing that we need to take urgent steps to meet them and that in the context of this urgent need we should follow the established and orthodox means and methods of education. In other words, it is implied that radical researches, discoveries and inventions should not be allowed to distract us from following the beaten path. We are, therefore, counselled that what we need to do is to multiply the usual classroom teaching, and that if research is to be conducted, we should limit our research programmes only to augment effectiveness of the usual classroom teaching.

Fortunately, this view is no more shared by those who are engaged in research at the frontline of education. As a result, it is possible for us to feel free to be liberated from the beaten tracks of education, and many researches in the new path may enable us to design new strategies that will ultimately be found to be more practicable and more favourable to the fulfilment of the goals that we have in view, including those of universalisation of primary and elementary education.

In India, we have been thinking of non-formal education at the primary level, and although we do not have as yet a nationwide and extensive major programme of non-formal education, we have developed a programme during the last few decades on the basis of which a new strategy can be evolved and proposed so

as to meet the needs of primary education of large masses of children who live in remote villages, hamlets and even in towns where access to formal education is not easy or adequate. In fact, it appears that non-formal education could ultimately prove to be the real effective answer, and it is also to be seen that it is through non-formal education that we can introduce more dynamic methods of education. And this opens up a vast area of research.

In the ultimate analysis, it seems that we shall have to create a large scheme of non-formal education in the country so that we can meet at least four or five requirements that are central to effectiveness of primary education. One of these requirements is related to wide variations among target-groups, which cannot all be given uniform pattern of curriculum, teaching-learning materials and orthodox timings of attendance and mechanical methods of teaching and learning. The second requirement arises from those teachers who are directly suitable to the conditions and environments in which they have to teach. Stereotype training of teachers here would be irrelevant, and special courses of training have to be designed, which could be useful to the programmes of non-formal education. The third requirement arises from the fact that children at the primary level get interested in education by means of pressures of environmental influences, and it is noticed that urban influences, which strengthen motivation for primary education are not available in rural and remote areas. The fourth requirement is related to the formal system of education, since even where it is widespread, it has not prevented large dropout rates. This means that the formal system of education needs to undergo a great change so as to make it more non-formal and even informal. Promotion of interest in studies is the heart of effectiveness of primary education, and it cannot be said that this interest is created or sustained through the orthodox and conservative system of education. Finally, it may be argued that not only at the higher levels of education, but even at the lower levels of education, the open system of education will be found to be more and more effective. Futurists can see quite clearly that a huge revolution is waiting to break out in the field of education all over the world, and in the tide of that revolution, we shall all be

required to shift away from conservatism to progress, from the old and the obsolete to the new, from mechanical handling of children to organic and dynamic living methods of education.

III

This means that our researches need to have a threefold focus: 1) promotion of non-formal education at the primary levels, — even at the kindergarten level, which is greatly neglected; 2) teaching and learning in the non-formal setting so as to determine and provide conditions and capabilities that would enhance the effectiveness of non-formal system of primary and kindergarten education; 3) production of teaching and learning materials that can be effectively used in the non-formal setting and which can eventually be used also in the formal setting. It may also be added that efforts need to be promoted all over the country whereby informal education is also encouraged and brought to higher levels of effectivity.

IV

Let us reflect on the goals of primary education and their impact on problems relating to effectiveness of primary education.

The goals of primary education are closely related to the goals of elementary education. Since elementary education is the first terminal point of the educational ladder, it may be observed that it is natural that a large number of students will leave the cadre of education at that very terminal point. This means that elementary education ought to provide to each student three important abilities arising from : a) adequate training of the heart, head and hand that would aid in the flowering of intelligence, power of imagination, and skills to utilize elementary tools that are used for productive and creative work; b) adequate understanding of the environment, knowledge of the preservation of health, and development of the habits that would keep the body strong and fit, and responsible understanding of basic duties; and c) adequate capaci-

ty to practise virtues coupled with elementary science and art of learning to learn so that continuing education could be possible and practised.

What is suggested above is quite remote from what is being proposed in our scheme of education in India. Our curriculum envisages class X as a first terminal point, and the entire curriculum is geared to securing the requirements of class X. Options are given after Class X, and vocationalisation is also provided for in Classes XI to XII. Experience has shown that this scheme has not worked well; there is a large-scale dropout at class VIII, and vocational education has hardly flourished.

There is also an important point to be taken into account in determining what should be the first terminal point in our educational scheme. As we all know, our Constitution has laid down that the State shall provide free and compulsory education up to the age of fourteen years, and it may be suggested that the age fourteen corresponds to class VIII. The implications of this Constitutional provision is that we should so conceive our educational scheme that, by the age of fourteen, every child should receive such adequate training that would make him or her employable, in addition to possessing basic development of character and such skills that enable him or her to learn farther by the virtue of skills of self-learning. If such ought to be the goals of the courses of elementary education, curriculum for primary education should be so designed that by the end of class four or five, children are sufficiently enthused to continue to study farther at least up to the end of class VIII.

From this point of view, it may be suggested that primary education should achieve three minimum goals: a) adequate ability to read and write and sufficient capacity to do mental calculations in regard to arithmetical operations; b) development of various other faculties, — capacities of comprehension, abilities of creative work and skills of productive work; and in respect of components of these capacities there should be no compulsion but a good deal of freedom and, therefore, correspondingly availability in the schools facilities and opportunities to exercise this freedom under the guidance of the teacher; and c) development of sense of

wonder and curiosity and enthusiasm to learn more and more and to develop some mastery in respect of a few items of creative and productive work.

It may also be mentioned that the foundations of value-education are best laid in childhood and, therefore, primary education should have a component of value-oriented education.

There is another important problem, which is rather special in the context of continuity of Indian history of the last five thousand years. No student in any other part of the world is required to absorb the lessons of such a long and continuous story of multisided development. Our researchers have not sufficiently looked into this problem, and we have no case studies to suggest any experiments conducted so far as to how interesting parts of our long history can be effectively imparted to the children at primary level. Indian history is closely connected with Indian geography, and this aspect also needs to be inquired into in the context of the pedagogy of teaching history and geography. At the lower levels of education, it is often suggested, and quite rightly, that history and geography can be best taught through stories; but we do not have any evidence of sufficient mass of research work done in this respect. We should have at least a hundred good stories specially addressed to the target groups of primary education which can hold the attention of the children and which can induce in them love and admiration for the great builders of the Indian cultural edifice.

One of the reasons why primary education suffers in terms of ineffectiveness is the inadequacy of our reading material, not only in respect of historical stories but even in respect of stories which can be considered to be of great importance in terms of lessons of life, which have great bearing on the formation of character and personality. In fact, we need to create a new curricular framework, which would clarify the areas in respect of which suitable stories can be collected and in regard to which pictorial books could be brought out in a very large number so that they can easily be made available to children, their parents and their teachers.

We have, for instance, *satyam eva jayate*, as the basic motto of the Indian Republic. But do we have a collection of stories where

ideal of truth is illustrated? Have we collected stories of the great men and women who have sacrificed everything for the sake of the truth? We speak of perfection as one of the ideals of life; hence, we need to collect stories to illustrate, at the minimum, the proposition that whatever one wants to do, one should do it as perfectly as possible. Similarly, we should have a collection of stories illustrating the qualities of courage, heroism, harmony and illumination, nobility, equanimity, self-control, endurance, perseverance, obedience, humility, tolerance, straightforwardness, honesty, disinterestedness, generosity, self-giving, faithfulness, devotion, sincerity and gratitude.

We also need to propose a special research programme, the aim of which should be to produce such materials that could be exhibited easily by teachers in their classrooms, so as to highlight noble aspirations and thoughts and number of inspiring stories. These exhibition materials could also centre on such topics that would stimulate exercises in observation and accurate descriptions of such things as leaves, plants, flowers, minerals, birds, animals, figures, scenes, buildings, objects, events, etc. There could also be exhibition materials relating to simple activities like art of bathing, art of cleaning teeth, art of dressing, art of sitting and standing with right postures, etc.

Similar materials might also be collected and presented to the students that could develop the sense of wonder; examples could be taken from astronomy, from physics, from chemistry and from other sciences. Mere presentation of the idea of galaxies and expanding universe could fill the minds of the students with great amazement; presentation of the working of the human body could incite in the children's minds great curiosity to understand its excellence and its mystery. Question as to what is matter behind what we see and what we touch could also be subject that would produce a great sense of wonder. The examples such as those of caterpillar becoming a butterfly and other examples of mutations could create in the minds of children great interest in biology and in the theory of evolution. We could also create exhibition materials in respect of senses of knowledge and senses of action and we could even introduce subjects like inner senses and

capacities to see the invisible and to hear the inaudible. We should also collect beautiful artistic photographs and paintings and distribute them all over the country under a massive programme of encouraging and developing aesthetic sense. Albums of music can also be prepared so as to enable teachers to use them as means of encouraging interests in music and in learning music.

May I suggest that all these and similar ideas need to be taken into account while determining areas of research relating to school effectiveness at primary stage.

V

We may now come to those areas of research which require profounder expertise.

Discovery of the child, which began in modern times with Rousseau, Montessori, and Pestalozzi can be looked upon as a momentous step in the development of what can be called new education, and which has been spreading, in spite of heavy resistance from conservatism, so that the society may sooner than later acknowledge the sovereignty of the child. In ancient India, the sovereignty of the child can easily be detected from the fact that the entire social system was so designed that it aimed at enjoining upon the ripest and wisest Rishis to establish their ashrams, where children can be educated and cultivated under their exclusive and direct supervision and guidance until they attained the youthful age when responsibilities of adult life could be undertaken. Although the system developed from those early stages was sustained for a very long period with various kinds of modifications over several millennia, it came to be broken down during the last one thousand years and almost disappeared during the British rule. But the pedagogy that was developed in early times in India to serve the theme of the sovereignty of the child, can be seen to be returning upon the entire humanity as a result of the impact of the modern and Western discovery of the child.

This discovery has led to the formation of a new aim of education that insists on bringing out the child's own intellectual and moral capacities to their highest possible value and of requiring

education to be based on the psychology of the child. In a still progressive trend of thought, it is now realised that each child is a self-developing soul and that the business of both parents and teachers is to enable the child to educate himself, to develop his own intellectual, moral, aesthetic and practical capacities and to grow freely as an organic being, not to be kneaded and pressurised into forms like an inert plastic material. A farther step is to realise that this soul has profundity and that our task is to help the child to find its deeper self, the real psychic entity within, of which we hear so much in the ancient Upanishads. We shall then find that if we ever give it a chance to come forward, and still more if we call it into the foreground as the leader of the march set in our front, it will itself take most of the business of education out of our hands and develop the inherent capacity of the psychological being towards self-education and self-realisation of its potentialities. But already, the new educational methods which are being developed are on the straight way to the truer dealing.

When we speak today of child-centred education, we have to realise that our attention has to be focussed not merely on the outer surfaces of the growing child, but on the inner soul, which is struggling to master the subjective and the objective circumstances. And once we focus upon this central truth of the child, a new pedagogy will have to emerge which will be or can be made so universal that the usual controversies arising from rigid curricula and mechanical methods of education will no more remain central, and we shall be engaged in developing new concerns and new methods that will address not only to the body, life and mind of the child, but also to the soul as the leader of the instruments and capacities of body, life and mind. It is against this background that we shall realise the true significance of the message of UNESCO, when it speaks of "Learning to Be" and of "Learning: the Treasure Within".

The first issue here for research is connected with the need to make a continuous discovery of the child.

We have to realise that this continuous discovery of the child should ultimately bring about the building up of bridges of trust between the teacher and the child as also between parents and the

child. Healthy development of the child depends upon the degree with which the child looks upon the teacher and the parents with trust and confidence. Fortunately, children have a natural trust in their teachers and parents; but we have to learn that this natural trust is very delicate and has to be nurtured with great care and patience. A child may have inclination for art, music and dance, but if this inclination is not understood and nurtured or appreciated in the right way, the bond of trust can easily snap, and this may adversely affect the entire fabric of motivation towards learning. Children may come to be scolded by teachers and parents in regard to those very faults, which they themselves commit, and this again has a very adverse effect on the tender minds of the children. Children are often excessive in their enthusiasm and their depressions; — parents and teachers who do not understand this simple fact may so react as to dampen their enthusiasm or lead them to a permanent sense of inferiority. How to encourage a child to develop hope and aspiration when inflicted by depression and how to channelise excessive enthusiasm into balanced modes of motivation and behaviour is one of the difficult elements of the art that the teachers and parents have to learn. How to be gentle and yet firm, how to allow freedom and yet instil self-discipline, how to readjust our own interests in response to needs of the growth of children placed under our trust, — this is another article of art of life that teachers and parents have to learn.

All these and allied matters need to be made subjects of research, since they have direct bearing on effectiveness of schooling, — whether formal, non-formal or informal.

There are children who are reasonable, there are children who are rebellious, and there are children who are passive and even inactive or inert. There are many further variations and combinations, and teachers and parents have to understand more and more precisely the strengths and weaknesses of their children. Reasonable children can be placed on the right road more easily when they are given opportunities to expound their ideas or arguments and when they are exposed to better ideas and arguments; rebellious children have often excessive energy and they can often

be corrected by showing to them how the truth behind their rebellion is understood and implemented by us; very often they have a very high sense of personal dignity, and they can be turned to channelise their energy in the right direction, if we can make the right appeal to their sense of dignity. Again, children who are passive or inert should not be scolded or goaded into activities by exhortation or by punishment; very often they have natural physical deficiency in respect of stamina and vitality; even the real sloth of the children can be overcome if we can provide to them activities in which their interest can be invoked; in any case, none of the difficulties of growth can last, if teachers and parents can give to their children an assurance that they are not neglected or ignored, that in their journey of growth, teachers and parents are their companions.

Many children are naturally inclined to pursue the path of heroism and courage; they are natural lovers of adventure, and they want to break the limitations, which are inherent in their infancy or which are results of their upbringing. On the other hand, many teachers and parents are timid and they are afraid of the risks of adventure. Here, conflicts can be quite serious, but these conflicts can be overcome if teachers and parents can shake off their timidity and decide to move forward hand in hand with their children in activities of adventure. Personal participation in adventure will give them also the opportunity to prevent their children from becoming foolhardy and to exercise prudence and to follow rules of safety where they are indispensable.

There are a number of children who are by nature contemplative, who often seem to be on the surface to be inert or idle; they are often misunderstood by teachers and parents who can only appreciate those children who are smart, clever or even cunning. The resultant conflicts can again be very serious, and they can be overcome only if teachers and parents understand that contemplation is a very high philosophic, scientific and spiritual quality, and that this quality, if possessed by their children, needs to be rated very high and nurtured with great care and appreciation.

Truth, beauty and goodness, — these three great qualities which go a long way to build up the character and personality of

the child, — are more commonly present in the natural composition of the children than what is normally suspected or expected. The more we ourselves tune to these qualities, the more we shall be able to detect them in our children; and this will give us great opportunity to create circumstances, — formal, non-formal and informal, — through which these qualities can be strengthened and developed towards their higher and higher peaks of excellence.

These and similar insights into the psychology of child development are indispensable, if we want to make a process of children's development effective.

There should be massive movement in the country and in the world, which should declare three important messages: 1) Please understand your children; 2) Do not scold children for the faults which you yourself commit; 3) Establish in your life and in the life of the society the sovereignty of the child to such an extent that nothing is done by adults at home or in society, which will injure child's trust, child's enthusiasm and child's appreciation of Truth, Beauty and Goodness.

But all this needs to be supported by research and experimentation.

VI

It can also be suggested that we need to institute fresh research relating to pre-service and in-service programmes of teachers' training. And the very first idea that presents itself is that if the development of integral personality is the basic aim of all education, it should be the first requisite of the system that all teachers themselves have some essential orientation in respect of integral development personality. If this idea is inquired into by competent researchers, we shall be able to come up with valuable suggestions that would revolutionise our teachers' training programmes.

We shall, of course, be confronted with a number of resistances, but considering that a well-trained army of teachers is indispensable, we shall be able to overcome these resistances. Every teacher, for instance, will need to have sound physical fit-

ness and adequate stamina to take part in various activities of physical education. If example is the most effective means of education, there is no better way to inspire children to undertake physical education seriously than to have teachers who are themselves strong and healthy in their bodies and who have interest and capacity to play games with their children.

Similarly, teachers' training programmes should also have provision for adequate training in value-oriented education. This is a very vast subject, but when one studies it, one feels convinced that this aspect of education cannot be developed meaningfully unless we develop important projects of research. Moreover, this programme of research should be conducted with the help of the best teachers of the country. Unfortunately, it is not sufficiently realised that child education is the most difficult area of education, and that the development of this area will require inputs from the best and the wisest teachers and leaders of the society.

Again, teachers' training should have an important component of mental development. What has happened in the past is that we have encouraged research into how to teach various subjects of studies, but we have not paid adequate attention to research in how mental faculties develop, particularly during the childhood. We speak of Piaget with great admiration, but we have not taken enough lead from his work. In our teachers' training programmes, we should bring to the teachers' attention both Indian and Western studies in respect of the development of faculties of observation, logical and methodical thinking, imagination, inspiration, perception, discrimination, normative thought and action, and creative appreciation and enjoyment. We should collect dialogues of eminent educationists of these studies, and they could constitute a very interesting programme of training of teachers.

The art of telling stories is also a very important subject of research, and considering that stories play a dominant role in primary education, we should provide adequate training to teachers in the art of telling stories, which could include various aspects of accent, pronunciation, various modes of intonation, recitation, play of words, play of ideas, and various gestures for delineating characters.

The teacher at the primary level is not a specialist, but he needs to have such all-round training that he or she can deal with various aspects of education competently. Our attention should be focussed upon those elements of education which have so far remained neglected but which are of central significance. It is in this context that we need to underline themes of research relating to integral development of personality, value-orientation and artistic abilities, physical fitness, and skills to organise exhibitions, presentation of pictorial books and recitation and art of telling stories, etc.

5.

School Education:

Vision, Objectives, Critique, of New Curriculum Proposed by NCERT, Recommendations

NCERT has rendered a valuable service to the country by bringing out a discussion document on National Curriculum Framework for School Education. The last document on the curriculum was developed in 1988. It should have been reviewed much earlier, since it is best to renew the curriculum at reasonable intervals. But the effort that has been deployed in producing this new document appears to be very laborious and bears the imprint of the latest developments of educational thought and of the lessons that can be derived from the experiences not only of the last twelve years but right from the time when NCERT entered into the field of educational research. Moreover, the present document has produced a curriculum framework for all the stages of school education — from elementary to the senior secondary. All those who have participated in conceiving, writing and bringing out this document deserve our congratulations.

I

It is not necessary here to dwell on the merits of the document, since they are quite obvious. First of all, it is a frank document, and it confesses the failures that our educational experiments and practice have registered, and the questions which it has framed for eliciting the opinions of the readers bring out the earnestness of NCERT to find remedies so that in the future we can minimise the incidence of failures. Secondly, it expresses the aspirations to develop in the country a truly national system of education. In doing so, the document underlines the concern for

a cohesive society, education of the girl child, and providing special measures for children with special needs and for children from disadvantaged groups. The document has also done well to emphasise the need to strengthen the national identity and to highlight our cultural heritage and India's contribution to mankind. Thirdly, the document is fully aware of the need to respond to the impact of globalisation and the need to convert the information-society into a knowledge-society by utilising the revolution in new technologies. Fourthly, the document rightly focuses on the education for value development and for imparting to the students the message of fundamental duties of citizens, — a subject on which the Verma Committee has made valuable recommendations in two volumes which have been presented to the Government in October 1999. Finally, the document has also underlined the need to make our education child-centred in the context of the ideal of unending education with due emphasis on non-formal processes of teaching and learning and on some innovative ideas connected with work education, aesthetic education, physical education, and a new system of evaluation.

II

(A) Permit me, however, to make a few critical remarks.

It has been suggested that curriculum development is essentially a process of qualitative improvement. This is, of course, true; but what the country needs most urgently today is to liberate the educational system from the Macaulayan mould in which it has been so rigidly fixed that we need to propose to the country some radical strategies which would show how a new mould can be created, which would reflect the results of experiments which are going on since the last hundred years in certain progressive corners of India and the world. Indeed, it may be argued that this task could legitimately fall outside the purview of the exercises involved in the development of a national curriculum framework. But this argument is indefensible, since it is necessary to point out how the present mould of education prevents the implementation of some of the innovative ideas which have

already been pronounced in the past, and which have been repeated also in the present document.

(B) The second critical remark is regarding the teaching of languages.

The discussion document frankly admits that the three-language formula exists "only in our curriculum documents and other policy statements." (p. 39) The document points out that some States follow only a two-language formula, and that where even three-language formula is followed, there is no unanimity as to what should be the third language. But having studied all the relevant facts, and even when pertinent questions have been raised, the document does not come forth adequately in respect of an important and urgent issue. This issue relates to the study of Sanskrit.

Indeed, the document advocates the cause of cultural heritage, not only because it is a part of fundamental duties but also because every educational system must necessarily be the carrier of the cultural heritage, for building the bridges between past, present and future. But how can, it may be asked, this aim be realised without Sanskrit? For in any impartial view of our culture, Sanskrit stands out prominently as a language that has in India a history of more than five thousand years and has even a distinction of being even today a pan-Indian language and also a living language, since it even now continues to grow and develop, absorb modern idioms and is vibrant in the air and atmosphere of Indian cultural life which is shared by the largest masses of common people. One does not know how the aim of the duty that has been cast by the Constitution to preserve and nourish the cultural heritage can be fulfilled if we are to neglect the study of Sanskrit. In addition to the constitutional duty, Sanskrit needs also to be taught on the ground that greatest stores of knowledge concerning self-culture and self-perfection are to be found in Sanskrit, and the new scenario of knowledge that we want to build up demands the recovery of that knowledge so as to synthesise it with and even illuminate the modern trends of knowledge. Moreover, several disciplines of knowledge which were developed in India in the past, such as astronomy, mathematics, natural sci-

ences and medicine need to be brought to the attention of the scholars of modern knowledge with living sharpness. One is, therefore, compelled to conclude that Sanskrit needs to be taught not only at an elementary level but even at higher levels of competence.

To the argument that the three-language formula does not permit any direct entry to Sanskrit in our educational system, one sharp answer could be that if a language formula does not serve the real purpose of education that is being conceived and advocated, then it is high time to review that language formula. The discussion document could have at least brought out forcefully the need for such a review. At the same time, the following three constructive suggestions can be put forth, even in the context of our present disabling condition:

- a) Sanskrit could be made a part of the curriculum of the study of the cultural heritage of India.
- b) Sanskrit could officially be encouraged as an optional extracurricular language throughout the entire system of school education; and
- c) the country should establish institutions or schools exclusively devoted to the teaching of those languages which foster the preservation and transmission of our cultural heritage. (We may note that such schools have been developed by the British Council and Alliance Française, which are open both for students and members of the public). Proficiency acquired in these schools could also be given recognition by boards of examinations, colleges and universities.

In addition to Sanskrit, I should also like to add another important concern. This is regarding the study of an additional international language, apart from English which is being studied everywhere in the country. The world is becoming one global world, and the discussion document itself has spoken of the impact on our educational system on account of growing globalisation. One of the important consequences of this impact will be

a new awareness of the need to learn additional international languages. We shall need to select at least one such additional international language apart from English for special concentration. At present, United Nations has recognised six international languages, namely Arabic, Chinese, English, French, Russian and Spanish. From among these languages the one language that will be easiest for us to learn will be French, since French is not very distant from English and a large number of words in both the languages are common. Indeed, this has to be presented as an optional language, and it can also be developed as an extracurricular language.

(C) My third remark relates to a very important area, namely, the area of value-education. My feeling is that this entire area has been dealt with in the document in a piecemeal manner. In the first place, the idea that value-education should be dovetailed into curricula of different subjects needs to be reviewed. There is no doubt that value-education can be integrated into the study of various subjects, provided that this is properly balanced by developing a special curriculum for value-education as a full-fledged discipline. This would mean that there should be an integrated curriculum from class I to class XII which would have three interconnected components parts:

i) Topics such as virtues, exemplars of virtues, stories of deep human interest, history of morality, religion and spirituality with a special emphasis of these elements in Indian history, questions about the inner spirit of man, and higher concerns of synthesis of truth, beauty and goodness, and knowledge of universality, diversity and oneness.

ii) The second component should consist of graded exercises that would aim at the development of faculties of sensations, perceptions, sensitivity, imagination, aspirations, thought-power, will-power and power of concentration.

iii) The third component would consist of that which would encourage sense of wonder and mystery, attainment of excellence in the fields of natural sciences, social sciences, poetry, art, music, history, law, health, medicine, environment, etc.

There is, I think, an important segment in the curriculum pre-

sented in the document which can easily be integrated and expanded into the proposed special interdisciplinary subject. This refers to work-education, art education, health and physical education. The new proposed subject could very well be termed: value-oriented education, and under this subject all that is being proposed for education pertaining to fundamental duties can also be integrated. Great care should, however, be taken to ensure that value-education does not become education for do's and don'ts but rather a veritable process of value-oriented education, methods of which should be exploratory rather than prescriptive.

(D) My fourth remark is related to the area of examination or evaluation. Some of the suggestions which have been made in regard to this area are truly refreshing such as those connected with grading and marking system, maintenance of reports and reporting, and education testing service. It may, however, be remarked that the idea of continuous evaluation has a danger of encouraging a development of a system in which students are constantly harassed by the bugbear of examinations. We should ensure that the testing system does not compress the student's horizons within the boundaries of prescribed curriculum but, on the contrary, stimulates students to widen their interests, their scope of inquiry and development of skills and abilities relating to a number of areas which are not covered by the curriculum.

We also need to spell out in greater detail the idea of educational testing service. It is appropriate here to mention that the evils of examination system are not necessarily tied up with tests as such but with the nature of testing, frequency of testing, purpose of testing and relationship of testing with the overarching concern for permitting the growth of students' abilities, skills, value-orientation, aesthetic tastes as also the integral development of personality.

When the idea of National Testing Service was suggested in 1986 it was to be a measure to secure the following three aims:

- 1) A national testing should be available to students at various terminal points, particularly at the terminal point of the school education and the first degree education;

- 2) The National Testing Service should provide not only a

standard for entrance to higher education in colleges, universities and specialised institutions of engineering, medicine, law, etc., but also a comprehensive testimony for anyone who wants it for purposes of getting support for excellence, not only in respect of academic subjects but also in respect of practical abilities, aesthetic tastes and accomplishment, value-orientation, physical education, and of all-round development of personality; and

3) To conceive of a framework which would be open to any student who wishes to have a new system of testing, free from the fetters of the present system of examination, so that one can take the national test without having possessed any prior qualification, certificate or diploma or degree. This test would also be so organised that the student can take any test in regard to any subject or any aspect of personality development at any time of the year according to one's readiness for the test. To facilitate this flexibility, it was suggested that appropriate use could be made of the computer technology.

It was also emphasised that the National Testing Service should maintain very high standards of testing, and therefore, the tests should be so designed that they really test the level of excellence and that nobody can pass these tests if one has merely learnt anything mechanically, without adequate comprehension.

It should be obvious that if such a national testing service is developed, students who succeed through this test, will naturally gain higher credibility and will also gain higher preference in regard to employment opportunity. As a result, the national testing service can be a remedy to numerous evils which are at present to be found in the current system of examinations. A time can come when the entire system of education gets liberated from the present system of testing and its numerous hardships and defects.

I feel that the present moment is propitious to work out in detail the idea of national testing service, so that it can be implemented in the near future.

(E) There are many other remarks which one can make, but for want of time I shall restrict myself to only one more additional remark. This relates to the first terminal point in our educa-

tional system. There is, one feels, a kind of ambiguity which affects adversely the clarity in regard to the curricular framework in respect of the aims of class VIII and class X.

In order to clarify the situation, it seems that the end of elementary education, that is, end of class eight, should be regarded as the first terminal point, so that the curriculum of first eight years of schooling should be so self-contained that one can join, if so required or desired, after class VIII the world of work. This is also logical from the point of view of the fact that our Constitution has laid down that education should be compulsory and free up to the age of fourteen. It will be seen that age of fourteen corresponds roughly to class VIII. This means also that the Constitution considers that children should be so educated in the first eight years that if they want to join the world of work at that stage they can do so with necessary equipment to find employment or self-employment at some minimum level. In consideration of this, the aims of elementary education should be to equip the student with the knowledge of at least one language at a considerable level of proficiency to speak, read, and write, as also the competence to calculate in terms of addition, subtraction, multiplication and division, competence to learn further by self-help, and adequate grounding in the science and art of life, coupled with general or special knowledge or ability in regard to several or specialised subjects of personal interest.

It would be seen that if this aim is adopted, what is generally suggested for work education will need to be modified. The level of work education at the terminal of elementary education should be such that one can perform competently duties or responsibilities in respect of various kinds of work which are available to individuals of the age of fourteen.

Again, if elementary education is conceived as a first terminal point, value-education should have been so provided within the eight years of schooling that one can perform intelligently the duties that have been laid down in the Constitution and also show minimum maturity to pursue the ideals of multisided personality.

III

The discussion document contains a number of suggestions concerning the need for innovations. The underlying premise for these innovations is the aim which has been laid down for education, namely "enabling the learners to acquire knowledge, develop understanding and inculcate skills, attitudes, values and habits conducive for the all round development of that personality." (p. 29) Twenty-three clusters of qualities, abilities, skills, attitudes and states of consciousness have been listed, that need to be generated and promoted among the learners. It has also underlined the need to provide remedial teaching as well as counselling services for carrying out the diagnosis of learning problems and providing support to the needy learner groups. It has also pointed out that instead of using one uniform, mechanistic way of learning, cultural practices such as story-telling, dramatics, puppetry, folk-play, community living, etc., should become a strong basis of pedagogy.

The document has also recommended the need to shift from traditional-oriented cognitive approach of education to a more holistic education which places learning within the context of learners' total experiences. In this connection, it has suggested that aesthetic approach to education strives to restore appropriate balance to the learning process by giving equal status to experience, imagination, creativity and intuition, as it does to knowing, thinking, remembering and reasoning.

It also recognises the need to incorporate sound components of work education in the entire process of education interspersed throughout the ten years of schooling.

In the context of the need to convert the information-society into knowledge-society, the document advocates a shift from traditional learning atmosphere to a climate of values that encourages exploration, problem-solving and decision-making; a shift from didactic classroom teaching to participation, decentralised, interactive group learning; from traditional instructional methodology to strategies that unify knowledge; a shift from mastery of fixed body of knowledge to understanding of a web of relations

between parts of a whole; and a shift from linear sequential reasoning to search for patterns and connections and a shift from collection of information to processing of information.

While emphasising the new roles of the teachers, the document suggests that the teacher will have to play a catalytic role, entirely different from what he or she is used to at the moment. It further points out that it is the acquisition of learning skills, ability to explore, observe and discover the unknown and facility in analysis, synthesis, critical thinking and decision-making that need to be the watchwords of curriculum transaction under the supervision of the teacher who should essentially be a facilitator of learning.

These and other similar suggestions and recommendations are highly commendable, and they all need to be implemented. Unfortunately, the document does not suggest any strategy as to how the salutary changes which are entailed can be effected.

It must be admitted that the task is not easy and probably NCERT has to constitute a special committee at the earliest which would examine in detail all the proposed innovations and recommend to the country some practicable strategies to make our entire education programme innovative.

My own feeling is that innovations cannot succeed if they are sought to be enforced from above without creating a favourable climate in which teachers feel greatly inspired to implement innovations and to devote enough time to develop and accomplish the new tasks which are implied in innovative processes of teaching and learning. It would, therefore, be desirable to institute a scheme of innovative schools in the country under which the schools where the teaching staff is enthused by the proposed innovations could be selected for special help, both academic and financial. This scheme should be monitored by a group of distinguished academics, who could also provide leadership and guidance. These schools could also provide materials and ideas that could enhance the value of the national testing service as an alternative to the present system of examination, the deficiencies of which have been brought out quite clearly from time to time by teachers, students, educationists and various committees and commissions.

6.

Contents of Education for Character Development

Methods and contents of education are interrelated; this is particularly true in respect of education for character development, where methods themselves are in significant measure contents. This is the reason why the treatment of these two subjects tends to have some kind of overlapping. In a sense, the teacher in respect of education for character development has no method and yet every method. Similarly, he has no specific content and yet every content. A simple statement like the one that was given to Shvetaketu by his father, "Thou art that", can become sufficient for the entirety of the contents, and mere meditation would suffice as entirety of method. But this would not suffice in each and every case or when we have to deal with a large number of students, where each individual will need to have a special programme appropriate to his or her needs of growth and his or her special approach and method of growth. It is for this reason that we need to formulate methods and contents in a somewhat general way which can guide the teachers in dealing with such a difficult and subtle subject as education for character development.

It must have been observed that while expounding the methods, we have restrained ourselves to generalities, since what the teacher has to do in specific situations or in specific stages of each of his students has to be determined by him, and no specific prescriptions can be made in advance. In the same way, if we are to present a programme or a curriculum in regard to the contents, it can only be in the form of a very general guideline, and it has to be implemented by the teacher not as a fixed framework of a rigid syllabus, but as a flexible and experimental set of ideas and suggestions. The teacher has to feel free to modify, enrich or alter it in an experimental manner while dealing with his students in spe-

cific situations or in specific stages of development.

An exploratory draft programme which is being presented here should be looked upon in this light.

When we study the concept of character development in all its aspects, one central thing that emerges is that the entire process of character development is ultimately reduced to the process of self-knowledge and the process of self-control. In our undeveloped condition, we are a complex of impulses and passions, of rudimentary faculties and capacities and of inarticulate ideas and aspirations. All these need to be developed by three basic processes: introspective observation, careful processes of control, and growing awareness of oneself and of the world and their interrelationship by means of refinement of faculties and capacities. The more we observe ourselves and the more we control our impulses and passions in the right manner, the more we discover what we are truly in our deepest depths and highest heights and how we can deal with the world in a manner by which we can act rightly and contribute to the increasing progress and unification of the society and the world. This entire process can be covered under the general theme of character development, and this theme can best be described under the general title: "To know oneself and to control oneself".

There are three important elements which have magnetic power to lift students from lower to higher levels of character. These are: illumination, love and heroism. Illumination is basically the experience of clarity in respect of understanding of inner states of consciousness, of widening horizons of environment, and of value of relationships and internal complexities of psychological and physical life. At a lower level, this clarity is conceptual, but as we ascend higher and higher, it assumes the nature of intuitive and inspirational enlightenment. Love is that indefinable but powerful force of delight that ultimately brings about harmony in all relations. As Shelley pointed out, "this is the bond and the sanction which connects not only men with men but everything which exists." Transcending selfishness and self-centredness, love opens its portals to the inner cave of our hearts and makes us surrender to the supreme glory that is universal and

divine. Heroism is spontaneous galloping of power that rides on crest of self-giving which cares only for establishment of justice and upholding of all that is noble and true. These three, in their combination, provide irresistible leverage for rising into a transforming process. They render the task of self-control into the tasks of transmutation. Not suppression but rejection, purification and sublimation of the lower impulses and drives is the real secret of self-control.

One of the important instruments by which these three elements can be made operative in the educational process is that of good stories. A programme of character development must provide for a large number of stories that illustrate the themes of illumination, love and heroism. But care should be taken to ensure that these stories should have been written in a language that is chaste and beautiful. They can be selected from the world literature but made available to the children in the language which they all understand and appreciate. They should be full of human interest, and they should be able to create an atmosphere that is clean and uplifting.

Along with stories, selections from poems and plays should also be a part of the programme. Inspiring passages and interesting essays also should be utilised.

Exhibitions play a great role in creating collective atmosphere and also in opening vaster vistas before the children's vision and imagination.

The programmes should also include exercises of contemplation, purification and of aesthetic experience.

Nobility of character is greatly sustained by the mind which is both wide and profound and which aspires to reach higher levels of knowledge. A great effort needs to be made, therefore, to ensure that learning material should have a vast canvas where the East and the West can meet and where subtlety and complexity of life are portrayed in a stimulating manner. Subjects and topics must be presented which develop sense of wonder.

There are a number of topics which are directly related to self-knowledge; there are others which aim at giving a synoptic view of the world; there are topics which are concerned with themes of

mutuality, harmony and true brotherhood. All these topics should suitably be presented in well-graded manner.

Linguistic capacities are a great aid to the development of character. The greater the mastery over the language, the greater is the mastery over thought; and the greater the mastery over thought, the greater is the power of controlling the lower by the higher. The programme should, therefore, provide exercises that aim at chiselling the capacities of linguistic expression, both oral and written. The exercises in this connection should also include those of recitation, singing, and dramatics.

Works of labour and community service with an inner sense of dedication should be underlined. The right attitude towards work should also be cultivated; it must be remembered that one must work, not to come first but to do one's very best, that one must work to achieve perfection and one must be neither in a great hurry nor lazy and sluggish.

One of the important aspects of the programme should be related to bridging the gap between the realms of science and the realm of values. The perception of the unity of the world is a necessary basis for durable striving for harmony and brotherhood. There are a number of topics that could be suggested which would show the unity of Matter, Life, and Mind; and there are various other topics which could show the possibilities of developing mind to manifest higher powers that would, in due course, promote higher levels of harmony. These topics should be presented in a graded manner so that one begins to perceive how the entire world-process is one and how a true harmony between oneself and humanity can be established.

At higher levels in secondary or higher secondary courses, introductory topics which would provide reflections on religions, science, philosophy and Yoga should form an important part of studies. As these subjects are full of complexities and controversies, great care should be taken to prepare learning materials that would encourage impartiality and comparative studies. Instead of providing dogmatic answers, we need to develop the sense of exploration in the growing minds of students.

In the end, it may be emphasised that since character develop-

ment is related predominantly to will, and since will is well developed when we provide freedom of choice, special emphasis should be laid on creating environment where students can enjoy freedom. Freedom necessarily raises questions regarding discipline. Ideally, discipline should be a resultant of freedom, and all discipline should be self-discipline. One of the most difficult problems in character development is as to how to inspire students to impose on themselves a programme of self-discipline. The success of the programme of education for character development will depend upon how far the contents and methods of education can harmonise the demands of freedom and discipline. It is worth remembering the famous view of Socrates that it is only when we are utterly free that we cannot but choose the good and the right.

The programme that is presented here aims at providing a flexible framework of the study and practice of those elements which would directly or indirectly promote the basic elements of character development. It is an attempt to correlate the main aspects of what Swami Vivekananda spoke in regard to man-making education with the varieties of subjects that are normally pursued in the primary, secondary and higher secondary courses in Indian schools.

This programme underlines those elements of education which seem to be indispensable for every one to grow up as a well-developed human being, irrespective of what specialities are chosen for specialisation. Everyone needs to know the mystery and excellence of the human body, since the body is the material base of the pursuit of whatever ideals one chooses to embody in one's individual and social life. Everyone needs to understand one's own impulses, desires, emotions and will-power in order to determine how to control and master them and even transform them so that one grows into a personality guided by wisdom and inspired by the sense of harmony and heroic courage. Everyone needs to know how mind functions and how rationality, morality, and aesthetic refinement grow into higher and deeper reaches of psychic and spiritual being. Everyone needs to practise attitudes and powers of concentration and harmonisation of inner and outer life.

Everyone needs to learn how to learn and how to continue to learn throughout life. Everyone needs to be a good pupil and a good teacher and everyone needs to develop the capacity to choose the right aim of life and to pursue that aim with determination and perseverance. Finally, everyone needs to have basic grounding to be able to ask: What is the mystery of this world and one's own place in it so as to be able to play one's role effectively?

These and allied subjects need to be woven together in a graded manner so that the teacher can aid the student in a very flexible manner in the process of growth of character. As stated above, the key-words of the growth are "to know oneself" and "to control oneself". It is to be underlined that both these are difficult, but to render them into processes of supreme interest and unfailing enthusiasm is a task that can be fulfilled only if we chalk out a programme that is psychologically sound and practically workable. Much will depend upon the teacher's skills and powers of inspiration and guidance. And much will also depend upon the quality of the teaching-learning material that will be provided by the educators.

With these introductory remarks, a draft programme is presented. This programme is tentative, and this presentation is really in the form of invitation to the participants to study it and to suggest ways and means by which it can be improved and implemented. It will be seen that this programme will require the production of relevant teaching-learning material. It will also demand from teachers new attitudes and new initiatives and dedication. This may also imply a new programme of training of teachers. A good deal of cooperation has to be sought from parents and all those who are connected with the development of children. It may also be necessary to initiate courses of training of parents and others. This will, again, demand the task of preparing the relevant teaching-learning material.

One of the purposes of this presentation is to involve the participants in a long-term exercise through which the required teaching-learning material can be produced, experimented upon and brought to some kind of perfection.

Let us then study the proposed draft programme, given in the Annexure.

To Know Oneself and to Control Oneself

(An Exploratory Draft Programme)

Classes I and II

I. Stories and plays to illustrate the following themes:

1. The ideal of truth:
To speak the truth, whatever the consequences.
2. Aspiration for perfection:
Whatever you do, do it as perfectly as you can.
3. Dreams of the new world:
Where truth alone prevails, where beauty and goodness pervade.

II. Special exhibitions on the above themes.

III. Teachers may recommend the following exercises and help each child to practise them:

1. Exercises in remembering and repeating noble aspirations and thoughts.
2. Exercises in observation and accurate description (leaves, plants, flowers, minerals, scenes, animals, figures, human body, artistic pictures, musical pieces, buildings, objects, events).
3. Art of bathing, art of cleaning the teeth, art of dressing, art of sitting and standing in right postures.
4. Exercises in control of the senses:
 - Control in regulating calls of nature, thirst and appetite;
 - Control in speech;
 - Control in behaviour;
 - Control in movement and action.

Classes III and IV

I. Development of the sense of wonder:

1. Examples from astronomy: distance, vastness, galaxies, expanding universe.
2. Examples from physics: what is matter behind what we see and touch?
3. Examples from chemistry: what is water? Is it mere oxygen and hydrogen or something more?
4. Examples from other sciences: caterpillar and butterfly, language and understanding, outer man and inner man.

II. Training of the senses and their powers:

1. Knowledge of the senses: five senses of knowledge, five senses of action.
2. Exercises of vision and hearing: art and music as instruments.
3. Exercises of concentration in sense activities.
4. Inner senses: capacities to see the invisible and to hear the inaudible.

III. Awareness of the body:

1. Elementary knowledge relating to health, strength and beauty of the body.
2. Art of relaxation and art of sleeping.
3. The body as the temple of the spirit.

IV. Teachers may recommend, according to circumstances, the following attitudes and exercises:

1. One should study, not to pass examinations, but to discover the secrets of the world.
2. Work with the body is indispensable for true knowledge and experiences.

3. Practice of concentration in every activity: concentration is the key to all progress.
4. Practice of quietude and silence in "Rooms of Silence".
5. *Impromptu* periods or moments when children are asked to be as quiet as possible.

Directions to Teachers (Classes I-IV)

Some practical hints that result from the application of methods of psychological and value-oriented development are suggested here:

(a) It may first be noted that a good many children are under the influence of the inner psychic presence which shows itself very distinctly at times in their spontaneous reactions and even in their words. All spontaneous turning to love, truth, beauty, knowledge, nobility, heroism is a sure sign of the psychic influence.

(b) To recognize these reactions and to encourage them wisely and with a psychic feeling would be the first indispensable step.

(c) The best qualities to develop in children are:

sincerity	perseverance
honesty	peace
straightforwardness	calm
cheerfulness	self-control
courage	self-mastery
disinterestedness	truth
patience	harmony
endurance	liberty

(d) These qualities are taught infinitely better by examples than by beautiful speeches.

(e) The undesirable impulses and habits should not be treated harshly. The child should not be scolded. Particularly, care should be taken not to rebuke a child for a fault which one commits oneself. Children are very keen and clear-sighted

observers; they soon find out the educator's weaknesses and note them without pity.

(f) When a child makes a mistake, one must see that he confesses it to the teacher or the guardian spontaneously and frankly; and when he has confessed it he should be made to understand with kindness and affection what was wrong in the movement and that he should not repeat it. A fault confessed must be forgiven.

(g) The child should be encouraged to think of wrong impulses not as sins or offences but as symptoms of a curable disease alterable by a steady and a sustained effort of the will — falsehood being rejected and replaced by truth, fear by courage, selfishness by sacrifice, malice by love.

(h) Great care should be taken to see that unformed virtues are not rejected as faults. The wildness and recklessness of many young natures are only the overflowing of an excessive strength, greatness and nobility.

(i) An affection that is firm yet gentle, sees clearly, and a sufficiently practical knowledge will create bonds of trust that are indispensable for the educator to make the education of a child effective.

(j) When a child asks a question, he should not be answered by saying that it is stupid or foolish, or that the answer will not be understood by him. Curiosity cannot be postponed, and an effort must be made to answer questions truthfully and in such a way as to make the answer comprehensible to his mental capacity.

(k) The teacher should ensure that the child gradually begins to be aware of the psychological centre of his being, the psychic being, the inner seat of the highest truth of our existence.

(l) With that growing awareness, the child should be taught to concentrate on his presence and make it more and more a living fact.

(m) The child should be taught that whenever there is an inner uneasiness, he should not pass it off and try to forget it, but should attend to it, and try to find out by an inner observation the cause of the uneasiness, so that it can be removed by inner

or other methods.

(n) It should be emphasized that if one has a sincere and steady aspiration, a persistent and dynamic will, one is sure to meet in one way or another, externally by study and instruction, internally by concentration, revelation or experience, the help one needs to reach the goal. Only one thing is absolutely indispensable, the will to discover and realize. This discovery and this realization should be the primary occupation of the being, the pearl of great price which one should acquire at any cost. Whatever one does, whatever one's occupation and activity, the will to find the truth of one's being and to unite with it must always be living, always present behind all one does, all that one thinks, all that one experiences.

All the above suggestions are to be implemented from day to day under various circumstances and in the context of living problems of the growth of children.

The role of the teacher is to put the child upon the right road to its own perfection and encourage it to follow it, watching, suggesting, helping, but not imposing or interfering. The best method of suggestion is by personal example, daily conversation and books read from day to day.

Class V

I. Science and Values

A simple statement of the major facts of evolution:

1. Emergence of matter.
2. Emergence of life in matter.
3. Emergence of mind in life.
4. Man is evolving.
5. Striking phenomenon of the mutation of a caterpillar into a butterfly.
6. Future possibilities of the evolution of man. Yoga is a scientific and methodised effort of the evolution of man.

II. Aids for the Development of Value-Consciousness and Experience

1. To ask oneself: what am I?
2. Story of the search of Svetaketu and Nachiketas.
3. Listening to music: selected ragas (Indian) and harmonies (Western).
4. Pictures of the beauty of nature.
5. Study of great personalities: the Buddha (a detailed study).
6. Need for physical fitness: what it means (topic for study and reflection).

III. Teachers may recommend the following exercises according to circumstances and in response to the individual needs of each student:

1. Resolve daily to be truthful, to be free from fear and to have goodwill for everyone.
2. Works of labour and community service with an inner motive of *dedication*.
3. Clarity of thought: there is a distinction between *appearance* and *reality* (Examples from science, history, literature and philosophy).
4. Cleanliness and purity of the body, exercises for the body.

Class VI

I. Science and Values

Striking facts revealed by science:

1. Extraordinary phenomenon of intelligence in animals and birds.
2. Possibility of intelligence even in matter or material objects.
3. Complex organisation of social life in certain species of insects, animals and birds.
4. Man's intelligence: is it superior to the intelligence of ani-

mals and birds in every respect?

5. Value-oriented methods of developing intelligence and knowledge:

- Concentration — Silencing of the mind
- Intense search for the truth
- Sincerity in thought, word and deed
- Deep humility

II. Aids for Development of Value-Consciousness and Experience

1. Introspection: distinction between thought, will, emotion, impulse, sensation, perception, and functions of the body.

2. Story of Arjuna at the beginning of the Mahabharata War to illustrate the above distinctions (other similar stories).

3. Determination of the aim of life:

- The meaning of an ideal
- Ideals of truth, beauty and goodness
- Ideal of perfection

4. Study of great personalities: Jesus-Christ (a detailed study).

5. Listening to music: selected ragas (Indian) and harmonies (Western).

6. Examples of poetic excellence: regional poetry, Sanskrit poetry, English poetry.

7. Need to control and master the lower nature (topic for study and reflection)

8. Diet and health.

III. Exercises to be recommended:

1. To make in daily life the choice for control and mastery, for regularity and punctuality; the choice for truth and perfection, for work and perseverance to the end of the work, for seriousness of purpose and inner joy and equality in all circumstances.

2. To remember the aim of life and to:

- (a) Review daily before retiring one's actions, thoughts,

feelings, in relation to the aim of life.

(b) Try to harmonize thoughts, words, feelings and deeds so as to progress more in this direction.

3. To observe in oneself and to practise through daily effort and exercise:

(a) Creative urge towards poetry, music, art, crafts, dance, drama, reading, writing.

(b) Capacities to feel wideness, intensity and height of consciousness and experience.

4. Works of labour and community service with an inner motive of *dedication* — learning the art of sweeping rooms, courtyards, washing of dishes and clothes, and elements of first aid.

5. Enlarge interests: there is no subject which is not interesting.

6. Will always for health, strength, agility, plasticity and beauty. Remember: it is *not* a virtue to fall ill. If ill:

(a) Examine diet

(b) Examine habits

(c) Examine feelings, thoughts and actions — correct them and recover health

7. Daily one hour of relaxation and games, etc.

Class VII

I. Science and Values

1. How are plants different from animals?

2. Do plants and trees have feelings?

3. Experiments of Jagdish Chandra Bose.

4. Experiments of effects of music on plants.

5. Study of flowers as symbols of psychological states and powers.

II. Aid for the Development of Value-Consciousness and Experience

1. Calm and intimate company of plants, trees and flowers.
2. A study of the :
 - (a) Stories of Bodhisattva from the *Jatakas*.
 - (b) Parables from the Bible.
 - (c) Questions put to Yudhishtira on the bank of the lake and his answers.
 - (d) Messages received by Prophet Muhammad from the Angel.
 - (e) Account of Rabindranath Tagore's experience of his opening to poetic inspiration.
 - (f) "Powers of the Mind" — from Swami Vivekananda.
3. Topic for deep study and reflection: how to progress continuously?
4. Study of great personalities: Prophet Muhammad (a detailed study).

III. Methods for the development of the following qualities and skills:

- Quietude
- Interest in languages
- Poetry and music
- Clarity of thinking
- Will-power

IV. Exercises to be recommended:

1. Develop awareness.
2. Go deep, very deep within in search of the soul. (Concentrate on the region of the "solar plexus" and collect all your consciousness, and go deeper and deeper in that region, with quietude, and practise this often).
3. Study repeatedly and practise the message given in:
 - (a) The description of the *Sthitaprajna* as given in the *Gita*
 - (b) "The Sermon of the Mount", from the New Testament.
 - (c) "If you hast the work, this is thy work", by Sri Aurobindo.
4. Works of labour and community service with an inner

motive of *dedication*.

5. Daily one hour of exercises, games, etc.

Class VIII

I. Science and Values

1. Surprising mysteries of the human body as revealed by science.
2. Value-oriented concept of the body:
 - (a) The body as the temple of the spirit.
 - (b) The subtle body and its functions.
 - (c) The concept of *chakras* (centres of vibrations) and their functions.
 - (d) the concept of *kundalini*: how it can be awakened in different ways.
3. Yogic concept of the perfection of the body by a total psychological transformation.

II. Aids for the Development of Value-Consciousness and Experience

1. The ideal and practice of *brahmacharya* (example of Dayananda Saraswati).
2. Study of passages from Plato, particularly from the *Apology* and *The Republic*.
3. Study of passages from the *Upanishads*, particularly *Isha Upanishad*.
4. Contemplation on the concept of "Universals".
5. Topic for deep study and reflection: "What is my role in the world?"
6. Reflection:
 - (a) What is the aim of learning languages? How to enrich knowledge of languages?
 - (b) What is the essence of mathematics?
 - (c) What is science?

- Is language a science?
- Is mathematics a science?
- Is history a science?
- Is geography a science?

(d) What is the difference between science and art?

7. A detailed study of the life and work of Tiruvalluvar.
8. Daily one hour of exercises and games, etc.

Class IX

I. Science and Values

1. The concept of matter in modern science and yoga.
2. The concept of life in modern science and in yoga.
3. Importance of the sun and its energy for the life on the earth.
4. The nature of the light of the sun (*Saura Agni*): how it is different from the light of ordinary fire (*Jada Agni*) and electricity (*Vidyut Agni*).
5. The concept of *Agni* in yoga.
6. Speed of light: its importance in science. Position of an object moving at the speed of light. The concept of the mobile-immobile. Compare this with: "It moves, It moves not" — the Upanishadic description of reality.
7. The concept of time in modern science.
8. Speed of consciousness exceeds that of light according to yogic knowledge.

II. Aids for the Development of Value-Consciousness and Experience

1. What is the process of thinking? How is thinking different in science from that in philosophy?
2. What is technology? How should technology be learnt?
3. What is the difference between art and technology?
4. Observation of the different levels of being in man: the dis-

inction between the physical man, the vital mañ, the mental man, the spiritual man and the integral man.

5. Topic for deep study and reflections: "Unity of knowledge" or "All knowledge, scientific, philosophic or yogic, tends ultimately to be identical".

III. Exercises to be recommended:

- Repeated study and contemplation of Chapter XI of the *Bhagavad Gita*
- Vow of the Buddha
- Selected Psalms
- Islamic prayers
- Selected portions from Tulsidas
- Songs of Mirabai, Surdas, Tukaram, Ramprasad, and other saints
- Prayer of Swami Vivekananda

Class X

I. Sciences and Values

1. Our knowledge regarding man:
 - (a) Man in evolution
 - (b) Has man made progress?
 - (c) Limitations of man
2. The phenomenon of death. What is death? (in the physical, psychological and yogic senses). Can death be conquered?
3. Dependence of bodily life on respiration, food, blood circulation and sleep. Is this dependence necessary or indispensable?
4. The yogic powers of mastery over food, sleep, respiration and blood circulation. Limitation of these powers; dangers of these powers; real perfection.
5. The right attitude towards food, sleep, respiration and other limitations of the body. Need for temperance: avoidance of

extremes. Need for change of consciousness. Mastery over bodily limitations possible only at the highest levels of yoga.

6. The concept of the divine body.

II. Aids for the Development of the Yogic Consciousness and Experience

1. Elementary powers of expression.

Necessity and methods of development of these powers, particularly in relation to:

(a) Faultless language expression.

(b) Faultless bodily expressions: recitation, singing, eurythmics and dramatics.

(c) Faultless deeper expressions: poetry, dance, art and craft.

2. Elementary powers of perception.

Necessity and methods of development of these powers, particularly in relation to:

(a) Refined vision and audition, appreciation of art and music.

(b) Inner yogic visions and voices.

(c) Sympathetic feeling and understanding, experience of cooperation, harmony, mutuality and oneness.

3. Elementary powers of action.

Necessity and methods of development of these powers, particularly in connection with:

(a) The relationship between knowledge and action.

(b) The relationship between ideal and practice.

(c) The relationship between dedication and heroism.

4. Works of labour and community service with an inner motive of *dedication*.

5. Study of great personalities (A detailed study of the life of Mahavira)

6. Why and how to study? (A topic for study and reflection).

III. Exercises to be recommended:

1. Remember and practise in daily life:

- (a) Work, not to come first, but to do *your very best*.
 - (b) You have no right to criticize anybody, unless you can do better than the one whom you want to criticize.
 - (c) Cultivate in yourself those qualities which you want others to cultivate.
 - (d) Select books, magazines, and films with utmost care, and under the guidance of some teachers whom you trust.
 - (e) Do not indulge; do not *kill* your emotions, but learn the difficult art of control, purification, mastery and transformation.
 - (f) You have within yourself an inner soul, full of purity, joy and love and light. You are to discover it and bring it forward in all your activities, thoughts and feelings.
2. Continue to enlarge interests.
 3. Continue to will for health, strength, agility, plasticity and beauty.
 4. Daily one hour of exercises and games, etc.

IV. Programmes of Self-Education

The following exercises may be recommended:

1. Observation and developments of the natural tendencies, preferences, inclinations and interests.
2. Where have I reached in my progress?
3. What are my defects?
4. How to face defects without depression?
5. What should I do to overcome my defects?
6. Preparation of a programme of self-discipline.
7. Am I talking too much? To learn to speak only what is necessary.
8. Am I lazy? To resolve to remove idleness.
9. How to organize my life and my activities?

V. Study of selections from Valmiki and Vyasa

VI. A detailed study of the life and work of Guru Nanak.

Class XI

I. Science and Values

1. The role of intuition in discoveries and inventions of science. Yoga as a conscious method of the development of intuition.
2. Ancient Indian sciences and yoga.
3. Ancient Indian knowledge and modern scientific knowledge: some striking examples.
4. Systems of yoga: Hatha Yoga, Raja Yoga, Karma Yoga, Jnana Yoga, Bhakti Yoga, Tantra, Integral Yoga.

II. Aids for the Development of the Yogic Consciousness and Experience

1. Need for the systematic knowledge of the principles and methods of yoga.
2. Need for the Teacher: the real inner Teacher.
3. Need for inner aspiration in the student.
4. The right attitude towards time: to do everything as quickly and perfectly as possible.
5. Study of great personalities: Sri Ramakrishna and Swami Vivekananda (a detailed study).

III. Exercises to be recommended:

Reflections on:

1. Scientific and philosophical methods of knowledge.
2. Can science and philosophy explain the ultimate reason of events and processes of the world?
3. Value and limitations of the philosophical concepts of:
 - Deism
 - Pantheism
 - Theism
 - Monism
 - Omnipresence, omniscience and omnipotence of God.

4. Value and limitations of the philosophical proofs of the existence of God.
5. Can God be experienced? Affirmation of spiritual experiences. Varieties of spiritual experience. Yoga as a systematic knowledge of spiritual experience.

Class XII

I. Science and Values

1. Yoga as an exploration of existence by an enlargement of consciousness.
2. Yoga, like science, is a systematic body of knowledge.
 - Yoga, like science, is non-dogmatic.
 - Yoga, like science, accepts the criterion of verification by experience.
 - Yoga is science, *par excellence* (statements from Swami Vivekananda on this subject).
3. Materialism, science and yoga.
4. Need for the synthesis of science and spirituality.
5. Science and the discovery of the fourth dimension.
6. Discovery of the manifold dimensions of human personality.

II. Central Experiences of Inner Consciousness

1. Experience of true individuality:
 - (a) Experience of the Witness Self.
 - (b) Experience of the Psychic Being in formation.
 - (c) Experience of the discovery of the Psychic Being — experience of the second birth.
2. Experience of Silence or of *nirvana*.
3. Experience of the Cosmic Consciousness.
4. Integral experience of the simultaneous Silence and Dynamism.
5. Supramental time-vision.

6. Change and transformation of human nature.

III. Aids for the Development of the Yogic Consciousness and experience

A brief study of the following topics:

1. All life must be accepted, but all life must be transformed.
 - Works of knowledge
 - Works of love
 - Works of life-force

Problems in accepting and transforming these works.

2. Synthesis of the four main theories of the aim of life:
 - Supracosmic
 - Supraterrestrial
 - Cosmic-terrestrial
 - Integral

3. Development of a vision of ideal perfection, individual and collective.

4. Man's present condition and possibilities of his further evolution.

5. Psychological experiences of various parts and domains of being. Conflicts between the rational being, the aesthetic being and the ethical being. How to resolve these conflicts?

IV. Exercises to be recommended:

1. Sustained exercises of clear thought.
2. Intensive introspection.
3. Progressive harmonization of various parts of the being.
4. Creative work with sustained enthusiasm and the spirit of perfection in expression.
5. Programmes of dedicated community service.
6. Consistency in aspiration, effort and dedication.
7. Equality in success or in failure, while working constantly for the triumph of the Truth.
8. Development of the powers of philosophical reasoning, scientific observation and experimentation, artistic expression,

and technological skill. Harmonization of these powers by rigorous internal exercises of will.

V. Programme of Self-Education

To discover within oneself the secret guide and teacher and to take up the charge of educating oneself progressively and integrally.

7.

Higher Education: Vision, Objectives, Problems and Recommendations

I

There is no doubt that our entire orientation has to be focussed on the future. We should expect major developments in research, and while emphasis on physical sciences will continue, a pronounced emphasis will come to be laid on biological and psychological sciences. Critical knowledge will also receive unprecedented emphasis. Technologies will invent new techniques, new devices, new gadgets; information technology will not only accelerate the process of diffusion of knowledge but also aid in promoting discovery of new knowledge. Interdisciplinary studies will become more and more important, even though specialisation will not abate. This will imply development of a new kind of combination of specialisation and holistic vision.

The role of education as a liberating force will come to be emphasised as never before, and the meaning of liberation will come to include not only freedom from bondage, ignorance and backwardness but also freedom from gravitational pulls of the lower human nature. The role of education as an aid to the evolution of Nature, will also come to be acknowledged more and more widely. It will be realised that education should aim at evolving faculties and integrating them by the superior intellectual, ethical, aesthetic, and spiritual powers.

We speak today of the need to harmonise the individual, environment and cosmos. But as we proceed further, it is likely to be clear that this harmony cannot come about without inner purification and without developing inner space. We speak today of learning to be, learning to do, learning to become, and as we

progress further, it will become clearer that without the discovery of the essential being, which lies in the profound depths of our nature and personality, we cannot attain this ideal. We speak today of education as a dialogue between the past, present and the future; but this dialogue will begin to become upgraded into a recovery of the best of the heritage and transmission of it through a critical examination of the lessons of accumulated experiences of the past for further progress in the present and the future.

We are gripped today by an unprecedented crisis of values that obliges our society to transcend mere economic considerations and incorporate deeper dimensions of morality and spirituality. Value-oriented education is, therefore, an urgent task for all levels of education with an overarching necessity. There is today increasing hugeness of structures and organisations, which necessarily leads to centralisation, standardisation, mechanisation and even dehumanisation. It is no more possible to deal with the evil effects of these trends by the petty powers of egoistic consciousness that is necessarily dwarfed by immensity of the soulless Machine. What we need today and tomorrow is increasing number of individuals, who by voluntary sense of co-operation, mutuality and harmony can embrace humanity and world through universal love that is guided by wisdom. The great task in higher education is to nurture a new type of humanity and a new society of integrated personalities, imbued with knowledge, heroism, vastness and skills that are capable of meaningful creativity and productivity.

There is today a battle between the best possibilities for a new future and threat of the worst possibilities; this battle has reached a climactic point today. In fact, this battle at its deepest level signals an evolutionary crisis demanding from humanity a superhuman effort. And what can inspire that effort, if not the topmost leaders and teachers of higher and highest rungs of education?

All this implies radical changes in the objectives, contents and methods of higher education as also in the fields of research.

II

The objectives of Higher Education that we need to pursue should include the following:

- a. To provide the right kind of work ethos, professional expertise and leadership in all walks of life.
- b. To strive and promote increasing qualitative development and social justice.
- c. To foster among teachers and students and, through them in society generally, integral development of values inherent in physical, vital, rational, aesthetic, ethical and spiritual education.
- d. To promote synthesis of knowledge, with special emphasis on unity of scientific and spiritual pursuits that would revitalise our country's heritage and promote the ideal of the whole world as one united family.

Appropriate to these objectives, we need to develop appropriate contents. New courses have to be designed so as to achieve a proper blending of wide general knowledge and such specialisation, which would have in-built facilities to renew relevant knowledge and skills at increasingly shorter intervals and even on a continuous basis. Increasing freedom of choice in selecting subjects of studies has to be ensured, and interdisciplinary studies have to be so devised that they would foster understanding and appreciation of national history in the context of the goal of multicultural understanding that can contribute to the creating in the world of a harmonious united family of humanity.

Methods in Higher Education also have to be appropriate to the needs of life-long education. Student-centred education and employment of dynamic methods of education will require from teachers new attitudes and new skills. Methods of teaching through lectures will have to be subordinated to methods that would lay stress on self-study, personal consultation between teachers and pupils and dynamic sessions of seminars and workshops. Methods of distant education will have to be employed on a vast scale.

Special emphasis on value-oriented education will necessitate a new dimension to the role of the teacher. For value-oriented education cannot be imparted without teachers's own value-orientation. Again, the objective of integral development of personality cannot be fulfilled without teachers developing their own integral personality. For this reason, a new programme of teachers' training has to be envisaged, and this programme should not only cater to the continuous development of professional skills but also continuous development of teachers' ethical and spiritual abilities.

Appropriate to the new and difficult demands on teachers, we have to constantly raise the status of teachers in the country.

A major task ahead is to bring about radical changes in the system of examination. Our present system is so conceived and designed that it forces students to study with one principal aim, i.e., passing of examination and that, too, by developing the power of memory at the cost of all other powers of the head and the heart.

Our present system of examination combines perilously the requirements of personal and academic growth with those required for purposes of employment. Actually, the criteria for two purposes are quite different, and by combining them, we are serving neither of the two purposes. There is, therefore, a need to institute a national testing service by means of which these two purposes can be separated from each other. The national testing service should conduct tests, which are rigorous but so flexible as to be appropriate for de-linking degrees from jobs and which would at the same time promote physical fitness, skills for practical works, tests for creativity and value-orientation.

As noted above, the system of open universities needs to be strengthened and developed on a very vast scale so that access to higher education becomes broad-based and serves the purposes of social justice and equity. But the open university system should be so redesigned that it can foster amongst students constant motivation to learn and aspirations to develop not only academic abilities but also varieties of talents, which modern young people possess in an amazing degree, extent and potentiality.

III

An important reform that was introduced in our system of Higher Education, soon after the adoption of the National Education Policy of 1986, was that of autonomous colleges. Unfortunately, this reform has not received any appreciable response. There are understandable difficulties that various partners of Higher Education experience in giving the right response to this reform. However, a major difficulty has stemmed from the fact that we have not yet evolved alternative models of autonomous colleges. Ideally, an autonomous college should be able to provide student-centred education and the bedrock of that education is the facility of consulting every student in his or her process of growth in the direction that is self-determined but guided by wise counsel from teachers. Learning by snippets, which is the current mode, can be more easily replaced in an autonomous college by learning that is holistic and learning that aims at understanding, comprehension and grasp of meaning. Value-oriented education can also be practised through an ideal model where teachers and students can explore areas of studies relevant to values in a joint partnership. Short-term or long-term programmes of studies of practical work can be designed and modified in accordance with evolution of needs of students. The present mechanical system of attending lectures can be suitably altered where, not classrooms but libraries of books and audio-visual equipment become the arena of learning processes.

It is true that autonomous colleges require also a new model of governance, where freedom and accountability are not mechanically imposed but where they automatically obtain by virtue of new attitudes among principals, teachers and students, as also among the members of the managing boards. Often the problems arise because of stringent demands that come to be made for increasing financial inputs. But if these demands are modest and if the sense of utmost economy is exercised by all the concerned, then the difficulties can be minimised, particularly when the UGC is prepared to give special financial assistance for purposes of developing autonomous colleges.

The role of the principals of colleges has been of supreme importance. Numberless cases can be cited where a good principal has been able to alter the entire environment, work ethos, sense of discipline and attitudes among teachers and students by the sheer force of his or her personality, personal integrity and example of his or her character. It is for this reason that if the experiments of autonomous colleges are to succeed, that will depend upon the skills, expertise, and character of the principals. In a certain sense, it is true that just as geniuses are born and are not made, even so good principals are born and not made. Nonetheless, a widespread realisation of the great role that principals can play, a new atmosphere can be created that can nourish good principals, whose merits should also come to be recognised appropriately by the educational authorities and by the society.

There are, however, larger questions of curricular reforms where larger bodies like UGC and academic councils of universities have to play a leading role. Unfortunately, nothing has been as much neglected as the task of curriculum building. Academic councils in universities have usually unwieldy agendas, where questions of academic importance get the minimum time. Boards of studies do not meet as often as they should, and much of the work is done on ad-hoc basis. Even subject panels constituted by the UGC meet infrequently and very few of them have restructured curricula, and none of them has worked on any holistic proposal of a total restructuring of the curricular framework and curricular programmes. A major task for higher education is, therefore, related to a fresh look at the total situation where artificial barriers among faculties need to be broken. The situation is so ridiculous that a student of philosophy is not allowed to study mathematics and basic foundations of science, and languages like Sanskrit, Persian, Greek or Latin, even when such studies are directly relevant to the attainment of excellence in Philosophy. This is only one random example, but we all know the poverty of our curricular contents, their irrationality and their lack of inter-disciplinarity. It seems that time has come when a special commission is established just to inquire into this important aspect of higher education so that country-wide debates are initiated and

required earthquake is produced to shake the rigid and imprisoning foundations of our present courses of studies.

Closely connected with the need for curricular reforms is the need to revolutionarise our teaching-learning material. We have to ask the question whether the textbooks that are being prescribed are pedagogically valid, and whether they provide the needed stimulation and interest among students. Ideally, textbooks should serve as reference books, but from the pedagogical point of view, we need to create workbooks, worksheets and numerous kinds of materials containing biographies, stories, anecdotes, stimulating exercises, debates on important questions, audio-visual presentation, and similar other materials, which would make pursuit of learning an interesting adventure. Ideally, learning materials should inspire students to undertake studies on their own, supported by occasional help from teachers and counsellors. At a time when information technology is advancing faster than what we can imagine, it should not be difficult for the leaders of education to provide to the students multiple and alternative learning materials so that students are set to sail in their own boats of exploration of wonders and mysteries of the world and which can prepare them to face the challenges of the world adequately and competently.

New teaching-learning materials will determine and be determined by new methodologies of teaching. If audio-visual equipment is to be utilised on a large scale for transmission of knowledge, the learning material itself has to be formulated in such a way that it becomes suitable to the medium through which it has to be transmitted. As it is said, medium itself is the message, and this is, in a certain sense, true. This truth has to be applied while preparing teaching-learning materials.

IV

We may now come to the question of governance and management of Higher Education. Autonomy and accountability are the two watchwords of the recent trends in the theory and practice of organisation of systems and institutions. Indian system is, how-

ever, still feudal in many respects, and we need to go a long way so that our entire system becomes modern. We have, however, to underline that modernisation does not mean centralisation but decentralisation; it does not mean uniformity but diversity; it does not mean domination but co-operation and partnership. However, there are two desiderata, which all partners of education have to accept. The first is a new spirit of work ethos. It is a fact that our entire system is suffering because there is a large scale avoidance of performance of our duties and responsibilities. There is also a great deal of compartmentalisation, and we try to narrow down the scope of our compartmental duties. A large number of teachers feel that they have fulfilled their duties when they have delivered the lectures in the classrooms, and instead of being available to students when they are sought after for consultation by students, they are simply not available in the premises of colleges and universities. It is as though consultation is not a part of their responsibility. The librarian feels that his duty is limited to the management of storing books, but counselling students by presenting them latest books in respect of relevant subjects is not supposed to be a part of his duty. Management believes that controlling and securing finance is its sole responsibility, but academic excellence of the institution under their charge is not their responsibility. Often Vice-Chancellors take pride when mere law and order is secured in their universities, even though their major responsibility is to inspire students and teachers to pursue educational activities combined with efflorescence of the culture of excellence. If a new spirit of management has to grow in our universities, each partner has to work very hard in a disciplined manner and accept not only narrow definition of our duties but be prepared also to expand responsibilities under the realisation that our larger duty is that of co-ordination and co-operation.

The governance of university system itself requires major changes even at the top level. We all know that the purpose for which the UGC was created was to secure determination and maintenance of standards of teaching, examination and research in universities. This purpose has become increasingly overshadowed

owed by the activities connected with the giving of grants to universities and colleges. It is only recently that National Accreditation and Assessment Council (NAAC) has been established. As a matter of fact, it would have been much better if this Council were made a part of UGC itself, since the objectives of this Council are central to the objectives of UGC.

In fact, UGC needs to establish a permanent Academic Council consisting of eminent educationists of the country who can constantly study the problems of reforms in curricula and examinations and who should also bring out learned reports that would highlight the status of research and frontier areas where research should be focussed in our country. The country should feel the presence of a responsible body of wisest leaders of education available to universities, teachers and students for help, guidance and inspiration. UGC should also directly sponsor the publication of such useful literature that would bring the students and teachers nearer to higher and higher horizons of knowledge. For, in the ultimate analysis, governance of rules and regulations should be replaced more and more by governance through the power of the atmosphere of knowledge and wisdom. In varying degrees, they should apply to all institutions, which are designed for governance of educational system.

The internal governance of universities could also undergo a major change. The very concept of the Vice-Chancellor is that of a Kulapati. In actual working terms, the Vice-Chancellor has greatly been reduced to the position of an Administrative Officer, who is pulled in various directions and whose main job is centred on conducting unwieldy meetings of the academic councils and executive councils and on dealing with the bureaucrats in the Ministry and grant-giving bodies to secure funds, which are today getting even more and more meagre. The Kulapati of a university should be basically an academic leader, who is also involved in the cultural activities and activities that are central to the development of values of physical, ethical, aesthetic and spiritual education. What applies to the Vice-Chancellor applies equally to the principal, since the principal has a large direct contact with teachers and students, and his or her responsibilities have to be also stringent.

It is the cardinal principle of education that sovereignty reposes in students, and only two factors play the pivotal role, viz., students and teachers. Our entire system of governance and management should, therefore, be so reorganised that the sovereignty of the young people is upheld and never violated. Management, administration, and governance, are means, tools and instruments; students, — their growth, their free growth, their integral growth, their highest welfare — these are the real ends of education. Considering that at present our education is far from being student-centred, considering that it is lecture-centred and examination-centred, we have to realise what a long road we have to traverse before the real means of education are strengthened and real ends are fostered and fulfilled.

One of the most important problems that faces the task of governance and management of education, particularly in the field of Higher Education, is the increasing decline in public funding. During the last two plan periods, Higher Education has suffered serious consequences of this decline. Tasks are mounting and we do not know how we shall be able to furnish the increasing resources, which are needed. In India, the Government has been bearing increasing share of the financial burden. The share of the Government (Central and State) increased from 49% in 1950-51 to 76% in 1986-87. The Government expenditure was of the order of Rs. 42,126 millions in 1996-97, and during the subsequent period this has risen even higher. But the time has come when Principals and Vice-Chancellors are now being asked to secure mobilisation of resources from private agencies, from those sectors of industries, which ultimately use in large proportions the manpower produced by Higher Education. In a climate where private agencies have remained for so long spectators rather than participants, it is extremely difficult to secure funding from them. Increase in fees, which are levied upon students is a thorny problem, and even if equitable increase is effected, we cannot expect much amelioration in the situation. Greater partnership between private and public funds is the necessity, although public funding must remain essential.

V

Unfortunately, our country does not have a perspective plan of education that can look beyond the next five or ten years. It is necessary that institutions like NIEPA undertake the task of visualising the number of colleges and universities that the country will require, considering that larger and larger number of students are about to seek access to higher education, — not only because value of higher education is now being recognised and even necessitated by sheer forces of development, but also because with the universalisation of elementary education, a large number of students will necessarily upgrade themselves to demand admission to colleges and universities. At present, out of 21 crores children who should be in schools, only five crores complete elementary education. 16 crores of children remain out of the school or drop out at earlier stages. If these children are retained in the school system, we can imagine what a tremendous pressure will come upon the Higher Education system. We have to realise that only six per cent of the relevant young people are today in our higher education system. This percentage is bound to increase, and it would not be unrealistic to plan for the 15% of the relevant population in the course of next ten or twelve years. We only have to imagine the sheer quantitative dimensions of the increase that will be necessitated in the terms of more colleges and more universities.

There is no doubt that Open University system will have to bear a great responsibility to respond to the pressure for admission in higher education. But if open universities are to fulfil the higher purposes of education, including those of integral development of personality and value-orientation, these universities will have to change radically their structures, their programmes and the delivery systems.

We should not minimise the magnitude of the tasks that await us in the coming years. We have to look forward to more work, harder work and increasingly responsible work. Surely, this is not the time for us to sit back in our armchairs, but to sit up and even to take staff in our hand and set out for a difficult and arduous journey.

8.

Higher Education in Humanities and Social Sciences

I

In the history of education, not long ago, humanities played an overwhelmingly major role. Even the study of the sciences was sought to be glorified as a part of the study of philosophy. But the ascendancy of science and technology in the succeeding centuries has reversed the balance and many of the studies in humanities are sought to be glorified as studies in science. The coinage of the phrase "social sciences" is a testimony of this trend. In recent times, increasing stress is being laid on applied knowledge, and not only on manipulation of machines, but also on management of human beings and human affairs. Hence, we witness today an increasing tide towards management studies and towards those human and natural sciences, which have close connections with the theme of applications, management of affairs and production of wealth.

Let us acknowledge that no branch of knowledge, no activity of thought and practice needs to be derided in order to highlight or exalt any other activity for which we may have personal preference or predilection. In a broad vision of unity of knowledge, and of unity of the totality of life, everything has a proper place and even an indispensable place. And yet, in the domain of relationships, there is a valid distinction between what is essential and what pertains to manifestation, between what is chief objective and what is primary objective, between what is important and what is peripheral, and between that which is foundational and all the rest that depends on the foundational. In other words, interdependence among different branches of knowledge and its applications should not lead to a blur in respect of the exact role that

each branch should play in the totality. We hear from the Upanishads that one can arrive at knowledge of Reality, having possessed which everything becomes known. This underlines the necessity of assigning chief importance to the study of Meaning in the light of which meanings of details can be properly understood. And, at still higher levels, greater importance should be assigned to the study and realisation of what may be called "meaning of meaning".

From this point of view, it can be said that since things in the world are pursued by human beings and since this pursuit is dependent upon the pursuit of values that human beings erect from time to time, and also since education is primarily centred on the growth and development of human beings, the study of humanities ought to receive chief importance in any ideal scheme of education. It has been rightly suggested that the most important subject of study for the human being is that of the human being, and we should therefore, conceive and design a scheme of education in which the study of the human being receives focal importance.

This suggestion poses a great challenge to all those who are related to the framing of educational policy, particularly of higher educational policy, since it is in the field of higher education that ultimate ends of education are reflected best and which determine the drift and direction of other levels of education. This suggestion also signals warning to the society at large and to those who consciously participate in giving directions to the development of civilisation, particularly when, as today, they confront phenomena that are pregnant with avoidable possibilities of the decline and fall of our present civilisation. We have to be aware that the import of the subjects that are studied and emphasised in schools and colleges transcends the limitations of the classrooms and invades the larger issues of civilisation and culture and even those which relate to the frustration or fulfilment of the highest human aspirations.

II

We must admit that there is something fundamentally wrong

in our approach to humanities and social sciences, the way in which the courses of the relevant studies are designed, and the methods that we employ in the conduct of these studies as also in the way by which we evaluate the progress of students in respect of these studies. All this has greatly to do with the gradual decline of the importance of these studies.

In the first place, we need to take note of the unprecedented explosion of knowledge and of the exponential rate of the growth of this explosion. There are also breath-taking developments in information technologies, which multiply the impact of the explosion of knowledge. One important result of this explosion is tremendous pressure on specialisation; it has been rightly said that everyone is today obliged to learn and continue to learn more and more about less and less. Specialisation produces fragmentation, which in turn, blurs our vision of the whole. Consequently, as it has been rightly suggested, holistic knowledge, which is the hallmark of wisdom, has been lost in systems of partial knowledge, and these systems are again lost in plethora of information in respect of unending details.

Fortunately, there is growing awareness that corrective measures must be conceived and designed, and new types of courses of studies should be developed, which combine stress on specialisation and stress on essential and holistic knowledge. Unfortunately, humanistic studies which ought to aim at the search of essence and holism have themselves become fragmented, and they have tended to lay overwhelming stress on unhealthy lines of specialisation. In our Indian system of humanistic studies, the course of philosophy, for example, has been so designed that the philosophy student is debarred from the study of mathematics, Sanskrit, classical languages and broad outline of history, — which are essential if one has to study philosophy in a competent manner. This is only a stray example, but many more examples can be cited, which will show not only the poverty of our designing but also our incapacity to handle the problem of reconciling the demands of specialisation and demands of holism.

Redesigning our courses in humanities and social sciences is a challenge, and our higher educational policy should be so framed

that adequate machinery is created in the country, which can give proper and adequate response to this challenge. We have to confess that our Boards of Studies are themselves stuck in the prison of specialisation, and we cannot expect them to give a new lead that is urgently required for redesigning the courses. Academic Councils are even worse, as will be evident from the unwieldy agendas that are put up at the meetings of academic councils, where patient and deliberate thought required in designing the courses is practically infeasible. The panels designed by the UGC have also proved to be largely unsuccessful; some of the panels meet once in a blue moon, and that, too, only for a few hours. We must, therefore, think of some other machinery through which the best minds, which are imbued with largest vision of vistas of knowledge and which have also expert knowledge of some of the specialised disciplines and their interconnections, could be invited to work together for a sufficiently long period and to prepare basic guidelines for the redesigning of courses of humanities and social sciences. These guidelines should not again be blind to the requirements of our times, which emphasise orientation towards applications, scientific and technological advancement and the drive for dynamism of life, management of life and production and maintenance of wealth. While not denying the needs in a total civilisation of opulence and prosperity in material terms, the proposed new courses should give to the students a message that although pursuit of material welfare is the primary need, the development of intellectual, humanistic, ethical, aesthetic, and spiritual capacities constitutes the chief end of human life.

III

But redesigning of courses is not enough. What about the teaching-learning materials? This is even a greater challenge. And we have to remember that teaching-learning materials are directly related to the methods of teaching and learning. Our present system of teaching and learning bears the marks of primitiveness, since it appears to be based on the unacceptable assumption that the task of the teacher is to give lectures, and the task of the pupil is to listen to them. Sometimes we hear of the advocacy to encourage students to put

questions but we forget that mere putting of questions is not enough and it is not the end of education but only a part of the process of education. And we must admit also that if students are encouraged to raise questions in the classrooms, our classroom system itself will happily need to be broken down, since questions will incite further questions which, in turn, will incite more and more detailed answers which, in turn, will require long hours for discussions and even individualised dialogues between students and teachers.

There is no doubt that we must transcend our primitiveness; we must introduce dynamic methods in teaching and learning, and all study should be pursued through the methods of joint partnerships of teachers and students, through the methods of exploration and discovery, and through the methods of problem-solving. One of the reasons why colleges and universities have deteriorated into what an eminent educationist in our country has described as "baby-sitting institutions" is because our studies in humanities and social sciences are supposed to be learnt merely by listening to lectures, — mostly absent-mindedly, — whereas what is most important here is the need of sustained processes of reflection and meditation and laborious laboratory work, which would involve practical application of what is being taught and what is presented for assimilation by students. We think that only science subjects require laboratories; that humanistic subjects require no laboratories, no practical experimentation, no project work, no demonstration. The time has come when these ideas are exiled and replaced by higher heights of chiselling and sophistication.

We have earlier spoken of "meaning of meaning", and studies in humanities and social sciences should be distinguished as tools of mature process of thinking and meditative reflections as a result of which "meaning of meaning" can begin to shine in the minds of the students, and which can also be appropriately grasped, felt and practised by the hearts of the students. Our emphasis on teaching humanities and social sciences should aim at this goal. This would change totally the "baby-sitting" or worse atmosphere that prevails in nearly 80% of colleges and universities in the country. We might even say that if we cannot change this situation, it would be best to close down the present so-called teaching-learning system of

colleges and universities or else to turn them into open systems of teaching and learning where students can sit at home, learn whatever they can on their own and prepare themselves for examinations under their own responsibilities, — with some occasional help through personal contact classes, where only those students would be allowed to participate who agree to be regular and punctual in their attendance.

Admittedly, this would not be an entirely desirable course of action. For, even though open system has its own merits, and the methods of open system are in many ways profitable, there still remains the indispensable role of the dialogue between the teacher and the pupil and even of individualised process of teaching and learning, which can be developed and fulfilled only by continuous teaching-learning situations. But this would mean that lecture systems should be substituted by consultation system in a very large way, and teachers have to be geared to the task of teaching through methods of exploration and through participation in students' growth not only in their studies, but also in respect of their personalities; teachers have to upgrade their own levels of studies on continuous basis; and teachers have to develop not only sharpness and expertise in their own specialisation but also ever-growing sense of holism, synthesis and comprehensiveness.

As a consequence, new teaching-learning materials will need to be so developed that they will yield to the new dynamic methods that teachers and students will be required to employ. This would imply a gigantic task.

IV

But even this is not enough. As long as our present system of examination remains what it is today, the entire system will constantly tend towards the gravitational pulls of learning by cramming and learning at the last minute just before the examination. The present system of examination is the greatest challenge, and if we have to change it meaningfully, major steps have to be taken at the national level, and not only the policy makers, educational administrators and experts have to come together, but teachers,

students and even parents have to extend their utmost collaboration. First of all, we have to distinguish tests, which are meant for stimulating students' pursuit of studies and achievement of personal excellence, from those tests which have in them elements of uniformity, standardisation and competitiveness, which are relevant to the requirements of employment in the market. The latter should be the function of local, regional, or national testing services. The former should be a part of the teaching-learning process in schools, colleges and universities. In either case, however, tests should really test, and they should really assess the students' real and intrinsic capacities. Secondly tests should be of varied nature; they should not merely aim at testing memory but also understanding and comprehension; they should test practical abilities. They should test even the physical fitness; and they should test students' value-orientation. May we suggest that all this is practicable provided that we all collaborate in the difficult task of evolving the needed means and techniques.

Not long ago, a very important report was brought out in the United States of America under the title "The Nation at Risk"; it was a powerful statement of the challenges that the American educational system is confronted with; it can be said that our nation is even at a greater risk, since our problems are much more complicated, our work-power is relatively at lower levels of efficiency; our work ethos is deplorable, and we have to catch up not only with the ever-advancing achievements of the West but also to recover the best that is available in our own Indian heritage but which has greatly been neglected and forgotten. Such being the reality, we shall realise at what level we should work in framing our higher educational policy. We have to understand the challenges properly and provide responses meaningfully and usefully.

V

There are many other aspects of the challenges that confront us. One of them is that of finances. And the question of finances is closely related to the needs of the growth and expansion in higher education in the country. We have today nearly two hundred uni-

versities and ten thousand colleges; and they are all starved of funds; this is visible even when we pay a cursory visit to the corridors of some of the central universities. One need not describe the deplorable conditions in which the classes are run and the way in which students have to manage with outdated equipment in laboratories. For the last fifty years, our entire educational set-up has been completely dependent on the State funding; when we are now told that colleges and universities must find their own avenues of augmenting their financial resources, we do not know how this demand can be met. Unless citizens become more enlightened and come forward to pay higher fees and even make voluntary contributions, unless our taxation policy allows a special educational cess with corresponding special benefits, and unless we learn how to make our budgets more balanced, more economical and more cost-effective, — we do not know how we shall be able to manage our higher education system even at a tolerable level of efficiency. This is not the question of State versus people; this is a case of State and people working together.

We know that today out of 21 crores children in the country, only six crores cross the level of elementary education; the rest of them drop out earlier and a very large number of them give up education at a level where they can easily lapse into illiteracy. Our country has rightly decided to work on universalisation of elementary education. We all wish that this programme should succeed. But then this is the time when we should also plan for the future on the consideration of what pressure this will mean on our present system of higher education. How many more universities and how many more colleges shall we need to open? Even if we take recourse to open system of higher education in a large way, — as we must, — do we have any perspective planning in this connection? Again, if we want to provide different dimensions in our higher education, — which we must, — do we have any realistic assessment as to what facilities we shall need to develop in respect of physical education, sports, cultural activities and activities that could foster the integral development of personality along with appropriate value-orientation? Unfortunately, we are almost blank and we have no right responses.

9.

Teacher Education: Objectives, Problems and Recommendations

All education is about knowledge and wisdom, about courage and heroism, about art of harmony, and about skill for effective productivity, excellence and perfection. But above all, the central figures of education are the teacher and the pupil, — the teacher, who has the power to inspire and uplift and the pupil who has thirst and who raises his hand for upliftment. And the interrelationship between the teacher and the pupil generates that secret process by which the heritage of the past is transmitted for purposes of the future. Without the teacher, the accumulated experience of the past remains barren, and without the pupil the future remains unborn. For the teacher, pupil is the sovereign, for the pupil, teacher is the sovereign. In the ultimate analysis, nothing is as important in the human society as the pupil, and nothing is as sacred as the teacher.

According to the Indian tradition, the sacredness of the teacher is derived from the fact that he represents the inmost living teacher of the world, *jagadguru*, who is the perennial guide and master, and unless the human teacher becomes a pure vehicle of the *jagadguru*, he must remain an apprentice, who needs constant training. And this process of training is a long process of discipline and austerity, which must be conducted with unending patience. And the mark of accomplishment will be when he, like the Rishi of the Kenopanishad, declares: "He by whom It is not thought out, has the thought of It; he by whom It is thought out knows It not." Such is the highest perspective for the teacher, a perspective that invites the teacher to become a constant pupil so that as a child he leads children, as a brother, he calls his brothers and sisters, as a light, he effortlessly kindles other lights.

Fortunately, this tradition had not remained a dream parable

but there has been a living succession of teachers who have provided luminous examples of this tradition. It is true that in the course of history, and in the recent centuries of decline, these examples have not been numerous, but since our country became renascent in the immediate past, we have begun to cherish an aspiration to multiply such teachers as were Sri Ramakrishna, Swami Vivekananda, and Sri Aurobindo. Not long ago, efforts were made to create nurseries of new types of teachers who could spread knowledge as spontaneously as flowers spread their fragrance. Unfortunately, since the attainment of independence, that effort became quite dim and it even got relegated into the background, although from time to time, it is being revived to some extent. But the time has now come again when both from teachers as also from the educational system, which has a number of partners in the society, we can expect efforts that should create conditions for the growth of the teachers who would increasingly approximate the ideals that we cherish in our country.

When the National Council for Teacher Education came to be established on 17.8.1995, it was like a dream coming true. For decades, educationists all over the country had felt the need for statutory status for the National Council for Teacher Education, which was at that time functioning as a body within the National Council for Educational Research and Training. It is gratifying that, in giving shape to the programmes and activities of the Council, the leaders of this Council have made significant contributions with vision and untiring labour. For within a short period of three years, the Council has made major impact and has not hesitated to make stringent demands on the teacher training institutions.

There is, however, an urgent need to give a new orientation to the entire Council. Let us go to the essentials and try to determine the nature of this new orientation.

We have to realise that the role of the teacher is undergoing vast changes. There is today unprecedented explosion of knowledge, and the quest all over the world imposes the need to arrive at synthesis of knowledge and synthesis of culture. Ancient knowledge is being recovered in the context of modern knowl-

edge. Humanities, sciences and technologies are being brought closer to each other. Some kind of specialisation with an overarching generality, which were valid and useful till yesterday are increasingly losing their relevance, and we are proceeding towards the future where a peculiar combination of wide comprehensiveness and effective specialisation will become imperative, and they will have to be fused together.

We speak today of child-centred education, and we are required to attend to the demands of integral development of personality. It is increasingly realised that our present system of education, which is subject-oriented and book-oriented will need to be replaced by a new system that will emphasise not only the development of the powers and faculties of human personality but also an all-comprehensive value-orientation.

The theme of value-orientation is reinforced by the contemporary crisis, the challenges of which can be met only if the ethical and spiritual capacities develop to such an extent that they can control and direct the huge structures that are being built up by means of increasing mechanisation and dehumanisation. The present crisis demands the development of the inner man and organised integration of the internal and the external aspects of personality. The highest educational thought of today has, therefore, spoken of the need to sharpen and transform the faculties and powers of personality leading towards their increasing integration and perfection.

We are also required to meet the demands of building the defences of peace in the minds of men and of developing not only a responsible commitment to the idea and practice of the Family of Man but also to the generation of goodwill, mutuality and harmony in the very fibres of human consciousness.

There are other great pressures on humanity, — pressures of increasing population, increasing exploitation of resources, which are always limited, and increasing degradation of environment. Educational system, and along with it, teachers are required to be the vehicles of the message by which population can be controlled and environment can be protected.

All these and other consideration imply that there has to be a

major shift in the objectives, contents and methods of education, and this shift will have a radical effect on the role of the teacher and consequently on the system of teacher education.

In regard to the objectives of education, special emphasis will have to be laid on the development of personality and chiselling of the faculties of the body, life and mind under the increasing guidance of the inmost soul-power. As far as the methods of education are concerned, special emphasis will have to be laid on the methods of observation and psychological understanding of students coupled with appropriate counselling and guidance that would encourage students' enthusiasm to learn, to learn to learn, to learn to do, to learn to be and to learn to become. And as far as contents of education are concerned, special emphasis will have to be laid on self-knowledge that promotes self-control, world-knowledge that promotes harmonious relationship between oneself and the environment and judicious integration of humanities, sciences, technologies and fine arts. The contents of education will also have to be so redesigned that the outdated information is pruned and the best and the highest that have to be grasped and assimilated are brought nearer to the learners. Again, because of the interrelationship between contents and methods, new teaching-learning materials will have to be prepared so that they encourage self-study, and acceleration of the process of learning.

These perspectives have three important consequences for teacher education.

Firstly, the system will have to aim at creating new types of teachers who can understand and practise three instruments of teaching properly and adequately: instruction, example and influence. At present, teachers are using the instrumentality of instruction so exclusively that the other two instruments are hardly allowed to play even a minimum role. Even the methods of instruction are rather gross and mechanical. The new teacher will seek to provide learning experience to the learner and aim at intensifying the initial curiosity and developing in the learner a sense of wonder, which is not only a great propeller of learning but also a constant flower and flow of learning. The new teacher will also chisel the capacities of instruction so that the words for communication will

bear profound understanding of the subject, clarity of ideas and concreteness of experience.

Secondly, — and this results from the first — the methodologies of teacher education will be so changed in the system of teacher education that teaching through lectures will be subordinated to the methods of self-learning and learning through creative teaching-learning material and activities related to the development of skills.

And thirdly, the system of teacher education will be centred on integral development of the personality of the teachers under training, — and this integral development of personality will be focussed on exploration and practice of the highest values.

In pursuance of these perspectives, three recommendations emerge:

First, the present curriculum of teacher education will have to undergo vast changes. Development of integral personality and exploration of highest values cannot be adequately brought out within the limited scope of the present curriculum. Those who want to become teacher in their life have to be identified at an early stage so that at least over a period of five years they are adequately introduced to the processes of integral development of personality and value-orientation. Similarly, new methodologies of education will impose a longer period of practice, since the teachers will have to be trained in new methods of instruction, new methods of counselling, new methods of creating active environment for students with which they can interact in their processes of learning. A longer period of training is also required if teachers are to have not only specialisation in their subjects of choice but also increasing holism in their understanding of various disciplines of knowledge, art and craft.

Secondly, teachers' education will have to be so designed that every teacher has adequate knowledge of India and the world so that he or she vibrates with enthusiasm to serve the country and the world. This will require special emphasises on the study of Indian culture, its great achievements of the past in various fields and its capacity to rise from the present stage of renaissance to higher heights so as to build up a vast new synthesis of the East

and the West which retains, however, the fundamental springs of Indianness.

Thirdly, the examination system in the framework of teacher education will be so changed that every candidate who passes the examination will have proved not only academic abilities but also oral and practical abilities, and must have shown sound physical fitness and adequate value-orientation.

I shall now come to the last question. How shall we move forward from where we are today so as to bring about the required changes in our system of teacher education? There should, of course, be a special organ in the National Council of Teacher Education, which will have specific responsibility to propose innovations that can be effected in the present system of education. But that will be only for a transitional period. Ultimately, NCTE should be so empowered that it can influence universities and colleges of teacher education so powerfully that new curricula come to be designed, new methodologies come to be practised and vast facilities are created so that teachers under training are enabled to acquire the proficiency in utilising latest methods of audio-visual education and in employing other techniques relating to project work, counselling and learning to learn, learning to do and learning to be.

This is not the occasion to spell out in detail as to how these tasks could be undertaken by NCTE. What is important here is to emphasise the need to think over these tasks so that the perspectives for teachers' education may become more and more mature and may also come to be shared by various partners of education.

Considering what the NCTE has done during the last three years, we can feel confident that the new tasks that emerge from developing perspectives of teachers' education will also be undertaken with the needed sense of responsibility, enthusiasm and dynamism.

Appendix

Teaching of Sanskrit

During the year of Sanskrit, a number of activities are being undertaken at various levels for highlighting the importance of Sanskrit and for considering ways and means by which the study of Sanskrit can become more and more widespread. At its meeting of 25-26 October 1999 of the National Level Committee on Sanskrit several programmes were formulated and recommended such as those of religious harmony of India, importance of teaching methodology of Sanskrit with special reference to the teaching of Sanskrit through Sanskrit, identification of suitable authors for Sanskrit science series and for Sanskrit educational series and the finalisation of the Project of source-book of educational thoughts in Sanskrit literature, including Pali, and of the Project of source material for teaching of modern disciplines with a view to integrate traditional Sanskrit thought with those of modern subjects. All these programmes seem to be of crucial importance, and the National Council of Educational Research and Training has taken up these programmes with seriousness and enthusiasm.

All these programmes should have been undertaken much earlier, but considering the condition of the inertia that prevails in the country, one feels grateful to the Government of India for sponsoring and supporting the proposed programmes. The country needs a new awakening and a new orientation. The country has to strengthen its nationalist spirit and recover those treasures of knowledge and tradition which have been either lost or left in the margins of the national memory, but which can play a major role in re-fashioning our ancient culture at this important juncture of our renaissance.

Among the proposed programmes, the overarching concern is

for popularising the learning and teaching of Sanskrit, and the present Seminar is intended to spell out in detail how this learning and teaching can become effective.

It has been argued that Sanskrit is a very difficult language and that even after the study of that language over a considerable period, one does not acquire any adequate proficiency or mastery. It is also pointed out that even a large number of teachers and professors who have qualified themselves for M.A and Ph.D. in Sanskrit cannot yet converse in Sanskrit. As a remedy, it has been suggested that the curriculum of Sanskrit needs to be redesigned and the direct method of teaching through Sanskrit should be adopted.

I have no doubt that this remedy, if implemented properly, will ameliorate the situation. But first and foremost we must underline the importance of the factors that inspire and strengthen the motivation to learn Sanskrit.

These factors include a general national awakening to the following facts:

a) The earliest composition that is available in the world consists of Vedic Samhitas, the language of which is Sanskrit. In order to determine the nature of the thought and aspirations which are embedded in the Vedic text, the knowledge of Sanskrit is indispensable. Again, considering that these thoughts and aspirations contain a system of knowledge connected with self-culture and self-perfection, that knowledge is directly relevant to the solution of some of the deepest maladies of the contemporary humanity; this enhances the value of the Vedic knowledge and therefore of Sanskrit.

b) Vedas are being now acknowledged not only as a part of the ancient Indian literature but also as a part of the world literature. Hence, the time is ripening when people of the world will turn to Sanskrit with increasing interest.

c) As far as India is concerned, it has to be noted that Sanskrit has always been an all-India language and it has universal appeal all over the country; even in the early part of the modern period we had profound authors in Sanskrit who had written profusely

and some of them had written, each, between 60-100 volumes. It is also to be noted that Sanskrit is the one speech which, in spite of the heavy blows cast on it by misfortunes of various kinds, and even after centuries of decline connects our long period of past history with our present.

d) All that pre-eminently constitutes India as a nation has been expressed continuously through the Sanskrit language. Three greatest national poets, Valmiki, Vyasa and Kalidasa have written only in Sanskrit, and it may be asked as to how, without the knowledge of Sanskrit, at least at the minimum level, one can hope to enter into the spirit that is so vibrant in the writings of these three great poets.

e) At a time when it is increasingly recognised that India needs to recover a great store of knowledge that has been expressed through Sanskrit throughout a long period of its history, and when it is recognised further that that knowledge needs to be revived, reformulated, enriched and made to run on new lines by absorbing what is best and valuable in the modern currents of various disciplines of knowledge, how, it may be asked, can we ever hope to succeed in this task without a widespread knowledge of Sanskrit among students, teachers, scholars and general public?

f) At a time when the importance of Sanskrit is gradually gaining ground, and when the greatest demand that is being made on the modern mind is that one should combine the sublimity and luminosity of the heritage of the Sanskrit literature with modernity, it is indispensable that the country reorients its system of education in such a manner that Sanskrit is learned not only at the minimum level but even at increasing higher levels.

g) It has also to be realised that it is very difficult to master the Official Language of India, namely Hindi, without adequate mastery over Sanskrit, and also that all the other national languages can be mastered only when one has adequate grounding in Sanskrit.

h) The idea that Sanskrit is to be retained as only a language for the scholar is erroneous, since large manifestations of Indian culture involving masses of common people, inevitably invite expressions in Sanskrit. Even ceremonies of various kinds in

which common people participate collectively and massively demand some knowledge of Sanskrit so as to make them truly intelligible and enjoyable.

i) It has also been noticed that in regard to the computer technology, which is fast becoming the universal instrument of transmission and communication, Sanskrit has been found to be an ideal language. With the development of this technology, the importance of Sanskrit will increase, and there is a great possibility that Sanskrit will become a modern living international language.

These and other considerations need to be highlighted in very striking manners, so that students and teachers feel inspired to learn Sanskrit as quickly as possible and as proficiently as possible and at higher and higher levels of competence.

Why Sanskrit? This should be a theme for competent scholars to write on, and a programme should be launched under which short write-ups could be brought out in pamphlets and brochures in various languages of the country. Again, these pamphlets should be addressed to various target groups, including children, adolescents, youths, students of all ages, scholars, teachers and members of general public.

It has to be realised that it is only when motivation to learn Sanskrit is strengthened in the minds of the common people of the country that we shall hope to succeed in implementing whatever curriculum that we shall plan and try to implement.

Let us now come to the question of curriculum and medium of instruction for Sanskrit. It is certainly true that direct method of teaching Sanskrit through Sanskrit is most effective and the curriculum should accordingly be designed, — particularly if it is meant for children and adolescents. For at a tender age, learning is effected by direct experience of sounds and by the sensations and emotions that they generate. At that stage, the mental or abstract method of translation and therefore the learning process, which involves translation of meanings from one language to the other, is found to be artificial. The experiments of direct method and its successful implementation have already been demonstrat-

ed by a number of Sanskrit camps that are being held in our country. Simple conversational Sanskrit is already being imparted by the direct method in these camps, the duration of which is not longer than a fortnight.

We have also the example of the direct method, which is used for teaching French in Alliance Francaise. This Institution, which has a number of branches in the country and also in the other parts of the world, imparts high proficiency in French, within a period of three to four years, and it insists on teaching French through French.

It must, however, be noted that the direct method should be well-supported by high proficiency of the teacher, pictorial teaching-learning material, and appropriate use of audio-visual equipment. We can easily recommend as models the books which have been brought out by Alliance Française for teaching French. One can notice that the material presented in these books is highly conversational and pertains to events, which occur in the course of ordinary travels, visits, festivals, etc. This is instructive; for direct method thrives best when it is conversational and when it aims at developing conversational abilities.

It may be also useful to underline the fact that all the modern Indian languages contain a very large percentage of Sanskrit words; it would, therefore, be advantageous for any group of students if one were to cull out those words which are common between the language of that group and Sanskrit; thus much of the vocabulary of Sanskrit may be shown to be already possessed by the concerned students. This will not only give confidence but also the feeling that Sanskrit is, after all, not a difficult subject. This would mean that instead of having one uniform teaching-learning material for the whole country, we should prepare the required material relevant to each modern Indian language.

The direct method of teaching Sanskrit through Sanskrit need not necessarily eliminate reference to synonyms in one's own mother tongue or to the languages known to the learner. In any case, in a situation like India where several languages are being taught to the students simultaneously, it would be quite useful to prepare tables showing how a given word is translated by appro-

priate words in other languages which are being simultaneously learnt.

Rigidity in regard to method should be avoided, since even an effective method like the direct method may not suit certain individuals; it is also found that the direct method is even more effective when the basics of the given language are learnt through mother-tongue or through a language with which one is already acquainted. In the other hand, it is also found that when a student knows that the teacher does not know any other language than the language that is being taught, a greater effort is induced in the student to learn the concerned language through direct method.

As pointed out earlier, pictorial books are essential if the direct method is to succeed. Also, it is to be noted that various subjects of modern life do not have readily available words in Sanskrit language; we may, therefore, have to coin new words or Sanskritise the current ones which are known to the students.

The question of curriculum is, however, more complicated. The reason is that under the three-language formula, students can start learning Sanskrit in Hindi-speaking areas right from the beginning, if adequate facilities are provided by policy makers. If a favourable decision is taken and implemented, a high goal can be fixed in the curriculum for Sanskrit in the Hindi-speaking areas. Elsewhere, too, a slightly modified curriculum but a similar curriculum can be adopted where Hindi and Sanskrit could be combined and taught together on the basis of certain formula where appropriate weightage is given to both Hindi and Sanskrit. At present, Sanskrit is being taught, even in Hindi speaking areas, in classes 8, 9 and 10; considering that too great an emphasis is laid on the study of grammar, teaching-learning of Sanskrit becomes very heavy and difficult. There is a need to develop a new curriculum based on the assumption that Sanskrit is to be taught through Sanskrit; we need not simplify Sanskrit in order to make the learning of the language easy; there is, we might say, a possibility of arriving at what may be called simple but not simplified Sanskrit. Too much emphasis on dual can be minimised, we may also limit ourselves to simple compounds; emphasis on liaison or sandhi can also be minimised; we may distinguish

between learning Sanskrit for personal conversation and learning Sanskrit for understanding Sanskrit books written in earlier times. Even there we can identify such compositions such as Nalopakhyaṇa in Mahabharata which are not very difficult.

It is seen that in the discussion document issued by the NCERT concerning national curriculum framework for school education, a remark has been made that the three language formula exists only in our curriculum documents, and other policy statements that some States follow only a two-language formula, whereas in some other States a classical language like Sanskrit or Arabic is being studied in lieu of a modern Indian language. It is also pointed out that some boards or institutions permit European languages like French or German in place of Hindi. A question has also been raised if classical languages can be taught as a part of the composite course with mother tongue or regional languages. However, this document does not spell out any precise recommendation in regard to Sanskrit. In this situation, it is necessary that specific recommendations are made by us here in regard to Sanskrit, which has a very special place in the development of national consciousness.

In addition to the suggestions that I have made earlier, provisions need to be made to continue the study of Sanskrit at the higher secondary stage. For if a student has done three years of Sanskrit at the elementary and secondary stages, there should be facility to continue that language in order to sharpen the required competence. Actually, the scheme of studies provides in the senior secondary stage only one language and one more language as a part of elective courses. This seems to be unfortunate, because study of languages is extremely important, and we should ensure that there is sufficient room to study Sanskrit in addition to Hindi and English at the senior secondary stage, apart from the study of the regional language.

A distinction should be made between the study of language and the study of literature. More often than not, most of the language courses are designed with the aim to enable the student to study the literature of the concerned language. Most of the books meant for the study of English demand a great part of the time

for the study of English literature. The argument is that the more one studies the literature, the greater is the proficiency in the concerned language. This argument has indeed considerable force. But experiments show that a large number of students of literature do not exhibit proficiency in the language at the same level as those who studied the language in an intensive manner. For example, in order to master a language, one needs to spend a lot of time in the art of summarising, paraphrasing, composition of essays and letters, and copious exercises of translation from one language to the other.

Applying the same ideals in regard to Sanskrit, it seems desirable that the courses in Sanskrit at the school stage should provide numerous exercises for conversation, mastery of idiomatic expressions, computer abilities in regard to Sanskrit, development of capacity to translate from and into Sanskrit, and letter writing, and writing of summaries and paraphrasing.

Since the curricular framework for Sanskrit is still uncertain, the task for preparing teaching-learning material suffers from many handicaps. In any case, the following things may be suggested:

1. Open school courses for Sanskrit may be designed in such a way that through pictorial books, audio-visual cassettes and language laboratories, Sanskrit can be learned in a graded manner by target groups of three starting points: those who start at a young age; those who start at a period of adolescence; those who start at later stages.

2. The Government should sponsor a scheme of teaching Sanskrit as an additional language on an optional basis, at all the levels, and financial assistance should be given for running this additional course. In addition, just as British Council and Alliance Française conduct classes for English and French, respectively, for students of various stages and even for general public, such classes should be conducted for Sanskrit throughout the country, with adequate financial support from the Government of India.

3. In addition, crash courses for teachers to attain language

proficiency should also be prepared carefully. These crash courses should be introduced in the colleges and universities, where students can start learning the Sanskrit language right from the beginning so as to achieve some minimum level of proficiency.

4. Finally, it may be suggested that experts should organise teaching-learning materials for Sanskrit language laboratories which can be set up in schools, colleges and universities as also in cultural institutions. A language laboratory facilitates the students to study language mostly by self-help under the supervision of one supervising teacher, who can help the students by occasional intervention. Each student in the language laboratory can study language at his or her own pace. Auto-testing is also provided for in the language laboratory. However, the success of language laboratory will depend on the expertise employed in preparing the graded courses of Sanskrit for various types of students. This subject should be undertaken by institutions like NCERT and Rashtriya Sanskrit Sansthan.

As will be seen from above, the question of teaching Sanskrit through Sanskrit has many aspects and calls for a complete re-orientation, not only of methodology of teaching Sanskrit but also of curriculum, framing of alternative syllabi for various target groups, preparation of suitable teaching-learning materials, development of language laboratories, training of teachers on massive scales throughout the country, and above all, creation of a new climate in which the importance of Sanskrit is underlined so that a sustained motivation to learn Sanskrit is generated in the country.

Printed at Auroville Press
Auroville
2007

In response to the felt need in our country for reforming or even revolutionising education in our country, the Mother's Institute of Research, which is devoted to educational research, has constituted a few working groups, under the Chairmanship of Kireet Joshi. A number of working papers were recently prepared. A selected number of these papers have been brought here together so as to contribute to the national thinking on changes that need to be brought about in the field of education. The first paper in this publication entitled "A National Agenda for Education" is a result of several regional seminars and a national seminar organised jointly by several national organisations such as the Dharam Hinduja International Centre of Indic Research, Rashtriya Jagriti Sansthan, Desh Bhakta Trust and others. The remaining papers in this publication provide reflections on several issues which have been covered under the National Agenda for Education. These papers were discussed on April 22, 23, 29, 2000, at a Workshop for Teachers at Auroville under the auspices of the Sri Aurobindo International Institute of Educational Research. They present a detailed rational of innovations and reforms that seem to be both necessary and practicable, and it is hoped that they will stimulate fresh national thought and practice in our country.

Kireet Joshi (b. 1931) studied Philosophy and Law at the Bombay University. He was selected for the I.A.S in 1955 but in 1956 he resigned in order to devote himself at Pondicherry to the study and practice of the Integral Yoga of Sri Aurobindo and The Mother. He was responsible for the establishment of the Sri Aurobindo International Institute of Educational Research at Auroville. Invited by the Government of India he joined the Ministry of Education in 1976 as Educational Advisor and was appointed in 1983 as Special Secretary in the Ministry of Human Resource Development. He was member of the University Grants Commission from 1982 to 1988. He was also Member-Secretary of National Commissions on Teachers. He is Honorary Chairman of the Value Education Centre, and former Chairman of the Indian Council of Philosophical Research and of the Auroville Foundation. Presently, he is the President of the Mother's Institute of Research.

His works include, *A Philosophy of Education for the Contemporary Youth*, *A Philosophy of the Role of the Contemporary Teacher*, *Sri Aurobindo and The Mother*, *The Veda and Indian Culture*, *Towards Universal Fraternity*, *Education for Character Development*, *Education at Crossroads*.