

2.3

POSITION PAPER

NATIONAL FOCUS GROUP

ON

CURRICULUM, SYLLABUS AND TEXTBOOKS



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राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

First Edition

February 2006 Phalgun 1927

PD 170T BB

© **National Council of Educational
Research and Training, 2006**

Rs. 100.00

*Printed on 80 GSM paper with NCERT
watermark*

Published at the Publication Department
by the Secretary, National Council of
Educational Research and Training,
Sri Aurobindo Marg, New Delhi 110 016
and printed at Deekay Printers, 5/16,
Kirti Nagar Indl. Area, New Delhi 110 015

ISBN 81-7450-494-X

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OFFICES OF THE PUBLICATION DEPARTMENT, NCERT

NCERT Campus
Sri Aurobindo Marg
New Delhi 110 016

108, 100 Feet Road
Hosdakere Halli Extension
Banashankari III Stage
Bangalore 560 085

Navjivan Trust Building
P.O. Navjivan
Ahmedabad 380 014

CWC Campus
Opp. Dhankal Bus Stop
Panihati
Kolkata 700 114

CWC Complex
Maligaon
Guwahati 781 021

Publication Team

Head, Publication : *P. Rajakumar*
Department

Chief Production : *Shiv Kumar*
Officer

Chief Editor : *Shveta Uppal*

Chief Business : *Gautam Ganguly*
Manager

Editor : *Benoy Banerjee*

Production Assistant : *Mukesh Gaur*

Cover and Layout

Shveta Rao

EXECUTIVE SUMMARY

Introduction: Exploring Possibilities

At the very outset, a critical analysis of the Indian School Education System reveals that it is largely a monolithic system perpetuating a kind of education which has resulted in a set of practices adopted for development of curriculum, syllabus and textbooks that is guided by the patterns and requirements of the examination system, rather than by the needs determined by a mix of criteria based on the child's learning requirement, aims of education and the socio-economic and cultural contexts of learners. A marked feature of educational practices in school are a dull routine, bored teachers and students and rote system of learning.

The position paper makes an effort to explore possibilities to provide for an enabling and flexible framework for promoting increased choices made by the schools and teachers possible, and a greater role for children and community in making those choices on a large scale. In certain cases the States themselves have attempted to redefine curriculum and develop textbooks and other teaching learning materials. In view of the above, it is important to analyse whether the existing policy and curricular framework facilitate development of diverse and appropriate curricular approaches for achieving desired aims and objectives of education.

Curriculum for Equality

The analysis of various policy documents clearly indicate that achieving equality through education has been consistently and unequivocally voiced, over the years. However, the challenge of translating the vision of equality into a curriculum framework has remained unanswered. The basic problem that emerges has been conceptualising flexibility or diversity which is closely linked to the systems inherent limitation and inability to define the role of the '*curriculum*' and its transaction. Related to this are the associated problems in defining '*syllabus*', '*standards*' and going beyond the '*core*' curriculum. This reluctance of the system to allow for true plurality and flexibility in the curriculum, as well as the restricted meaning of the term curriculum itself is most clearly evident in the report Learning Without Burden (GOI 1993).

The past ambiguity in decentralising and diversifying curricula and textbooks reflects a perceived need for appropriate mechanisms to ensure that quality conforms with common standards of attainment as well as to a broad national democratic vision. ***With a view to promoting decentralised curriculum development it is suggested that appropriate regulatory mechanisms be created by establishing an independent body at the State level with a federal national structure, to approve different curricular packages, which include textbooks, teacher training and recruitment processes, assessment and examinations, etc. The national structure may be answerable to the CABE, and should produce professionally***

developed criteria and guidelines, conduct documentation and review, and ensure appropriate consultation and sharing among the State bodies. It is also recommended that the regulatory mechanism must be professionally worked out to carefully avoid the attendant distortions and problems that may arise out of bureaucratic and political pressures, vested interests or even corrupt practices, within bodies established to approve the curricular packages¹.

Mapping, Conceptual, Field Notion of Curriculum Syllabus and Textbooks

The existing ground realities and curricular documents reveal that all the NCFs emphasise the concerns and issues but do not make a very clear connection between the concerns, aims and curricular contents. The pedagogy and the view on knowledge also remain some what hazily defined. The rationale for almost all prescriptions is left un-stated. To address this, in this section the notions of curriculum, syllabus and textbooks have been examined and deliberated upon on the basis that the curriculum is a plan of facilitating learning for the child. This plan starts from where the child is, enumerates all the aspects and dimensions of learning that the considered necessary, gives reasons why such and such learning is considered necessary, and what educational aims it would serve. This plan also defines stage specific objectives, what content to teach and how to organise it. It also recommends general principles of teaching methods and evaluation, and criteria for good teaching learning material.

Justifications of the basis for making curriculum choices are very important. The key to understand the question of curriculum choice is to understand the relationship between the curriculum and the aims of education. Therefore, the curriculum is viewed more as a conceptual structure for decision making rather than details of what is to be done in the classroom.

The structure demands workable principles and criteria in most of the areas such as selection and organisation of content ways of interacting with children and classroom organisation, type of teaching-learning material etc. What is perceived to be important is what forms the basis for the choices made in syllabus, pedagogical decisions, textbooks etc. It is also suggested that a set of foundational assumptions a curriculum framework uses needs to be internally consistent, as clearly articulated as possible, and acceptable to all stakeholders.

Finally, operational definitions are also been placed for consideration to facilitate the process of curriculum development

Curriculum Framework: A plan that interprets educational aims vis-a-vis both individual and society, to arrive at an understanding of the kinds of learning experiences school must provide to children.

Curriculum: Curriculum is, perhaps, best thought of as that set of planned activities which are designed to implement a particular educational aim- set of such aims - in terms of the content of

¹ One member of the Focus Group has a dissenting view of this issue. She did not think that such a body should be created.

what is to be taught and the knowledge, skills and attitudes which are to be deliberately fostered, together with statements of criteria for selection of content, and choices in methods, materials and evaluation”. In reference to the framework above it would mean the ‘*curriculum core*’ and ‘*syllabus*’ put together.

Syllabus: refers to the content of what is to be taught and the knowledge, skills and attitudes which are to be deliberately fostered; together with stage specific objectives.

Groups Essential Position

The overall approach advocated should be to provide a curriculum framework that :

- facilitates schools and teachers make decisions about choice of content, pedagogy, teaching learning material, evaluation, etc. at school level; in other words, a national curriculum framework for increased autonomy of the school
- provides help to the teacher in becoming reflective practitioner who learns from her own experiences
- emphasises learning with understanding and learning to learn, and helps children develop their own understanding based on their lived experiences; and;

General aims of education

It is proposed that within this framework, the articulation of aims needs to serve two major purposes. Firstly, reflect collective socio-political aspirations of the whole society and second, serves a significant pedagogical purpose of provide direction to the teacher in choice of content and methods of education.. Aims are stated in two parts only as principles and no elaborate justifications and/or explanations are provided.

A. Values and Ideals: education should promote in society, as well as help the learner develop a rational commitment to:

- Equality – of status and opportunity,
- Freedom – of thought, expression, beliefs, faith and worship; as a value in life
- Autonomy of mind – as independence of thinking, based on reason,
- Autonomy of action – freedom to chose, ability and freedom to decide and ability and freedom to act,
- Care and respect for others – going beyond respecting their freedom and autonomy, concern about well being and sensitivity to all members of society,
- Justice: social, economic and political.

B. Capabilities of individual human beings

- Knowledge base – sufficiently broad knowledge base encompassing all crucial areas of socio-political life, and all basic ways of investigation and validation of knowledge

- Sensitivity to others – Sensitivity to others well beings and feelings coupled with knowledge should form basis of rational commitment to values. ‘Others’ should include all life forms.
- Rational/critical attitude: Critical rationality is the only way to autonomy of thought and action.
- Learning to learn – the future needs of development of knowledge, reason, sensitivity and skills can not be determined in advance. Therefore, ability to learn as new needs arise in new situations is necessary to function autonomously in a democratic society.
- Work and ability to participate in economic processes – choices in life and ability to participate in the democratic processes depends on ability to contribute to the society in its various functions.
- Aesthetic appreciation/creation – appreciation of beauty and art forms is an integral part of human life.

Stage wise objectives

The stage wise objectives need to be arrived at by keeping in mind the general aims of education, the developmental stages of children, nature of the knowledge in general and curricular subject areas in particular, and the child’s socio-political contexts. Further the objectives also have to be specific enough to be used as guidelines for content selection and organisation. It is proposed that articulation of curricular objectives should also take cue from the statement of aims. Formulation of curricular objectives for all but the last stage; can be done at the state and district level and each school can reorganise them as per the need of their children and teachers.

Principles of content selection and organisation

Often demand for introducing new subjects in curriculum is voiced to emphasise certain concerns. ***It is thus suggested that selection and organisation of curricular knowledge should be considered from at least four different perspectives, those of: aims of education, epistemological perspective, child’s learning and mental developmental, and the child’s context.***

Teaching – Learning Methods and Classroom Practices

A number of basic principles have been outlined in order to guide the choice of classroom practices:

- ***Understanding that children construct their own knowledge***
- ***Importance of Experiences in Learning***
- ***Active Engagement of learners is important for construction of knowledge***
- ***Variety of situations and multiplicity of methods important for creating diverse experiences***
- ***The socio-economic context and identity of the learner***

- *An enabling Teacher Child relationship*
- *The role of and space for parents and community*

Teaching Learning Material and Textbooks

The present day classroom practices are, in almost all schools of the country, totally dominated by the textbooks. As a result it has acquired an aura and a standard format. ***What is needed is not a single textbook but a package of teaching learning material that could be used to engage the child in active learning. The textbook thus becomes a part of this package and not the only teaching learning material. Therefore, a large number of packages should be developed at state and district levels with adequate provision for cluster and school level modifications and supplementary materials. The availability of a number of alternative TLM packages of all approved quality to the certainly increased choice of the teachers.***

Evaluation

Evaluation in education is always associated with objectives and implementation. By itself it is a process that determines the course of action and recommends changes for the betterment of the individual, society, nation and mankind. If we view education as preparation for meaningful life, then the process of evaluation presently been followed is limited in that it measures and assesses a very limited range of faculties of mind, is highly inadequate and lacks in giving a true picture of an individual's abilities or progress towards the aims of education.

Revamping the examination system is an important step of any meaningful educational change. In addition, making the model of continuous comprehensive evaluation effective necessarily calls for collective understanding among all concerned - child, teacher, parent, institutions of higher education and employer about what is being evaluated.

To improve the present system, the following is suggested

- ***Strive for excellence in all aspects of the learning, especially in the writing of materials, correction of work, monitoring student progress, and responding to enquiries by the learners.***
- ***Opportunity for revision and improvement of performance should consistently be available without exams and evaluation being used as a threat to study. Deduction of marks cannot be an alternative to motivating learners.***
- ***The learning experience itself must be evaluated, and not only its outcomes. Learners are happy to comment on the totality of their experience, and this information can be used to modify the learning system as a whole. The learner must be able to assess her learning experiences, individually and as a part of a group.***

MEMBERS OF NATIONAL FOCUS GROUP ON CURRICULUM, SYLLABUS AND TEXTBOOKS

Shri Rohit Dhankar (Chairperson)

Director

Digantar, Todi Ramzanipura

Khonagorian Road

P.O. Jagatpura

Jaipur – 302 025

Rajasthan

Dr. Kamala Menon

Principal

Mirambika Free Progress School

Sri Aurobindo Marg

New Delhi – 110 016

Prof. Anita Rampal

Maulana Azad Centre for Elementary
and Social Education

Central Institute of Education

Delhi University

Delhi – 110 007

Prof. Rajendra Bhatia

Head

Statistics and Mathematics Unit

Indian Statistical Institute

7- Shaheed Jeet Singh Marg

New Delhi – 110 016

Dr. Gayatri Devi Dutt

Director

Regional Institute of English South India

Jnanabharthi Campus

Bangalore – 560 056

Karnataka

Prof. Sandeep Ponnala

Dean, Faculty of Education

Osmania University

12-13-677-12, Kimtee Colony

Street No.1, Lane No.1

Tarnaka, Secunderabad – 500 017

Andhra Pradesh

Dr. Vipralhou Kesiezie

Director

State Council of Educational Research
and Training

Kohima – 797 001

Nagaland

Dr. Janaki Rajan

Director

SCERT, Varuna Marg

Defence Colony

New Delhi – 110 024

Mrs. Jaishree Acharya

D4-1, MS Flats, Sector 13

R.K. Puram

New Delhi – 110 022

Dr. Jyotsna Jha

74- Vijaya Laxmi Apartments

98, Indira Prastha Extension

Delhi -110 092

Mrs. Priyadarshini Kachhwaha

Vice Principal

Bharatiya Vidyabhawan's Vidyashram School

Opposite OTS, K.M. Munshi Marg

Bajaj Nagar, Jaipur

Rajasthan

Shri Prakash Burte

Plot No. 5, “Maitra”

Dr. Antrolikar Nagar No. 3

Behind “Kinara” Hotel

Hotgi Road,

Solapur – 413 003

Maharashtra

Dr. Sandhya Pranjpe (Member Secretary)

Department of Elementary Education

NCERT, Sri Aurobindo Marg

New Delhi – 110 016

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1. INTRODUCTION: EXPLORING POSSIBILITIES

“I have decided to end my life because the pressure of exams is getting to me. I can’t take it any more”, wrote Sudhanshu in his suicide note on March 4, 2005. The education that should give hope, teach the worth of life, develop capabilities to shape it, is often taking life and enabling very few. The majority of even those who pass exams with flying colours are capable only of seeing life as a deadly competitive race in which they have to win to survive. The principal, to whose school the unfortunate child belonged, seems to be utterly bewildered. *“We have conducted several workshops involving students on the need to combat stress. One just doesn’t know what goes on in the minds of students these days”*, she says. She does not realise that both the cause of the malaise as well as the remedy will have to be sought at a different plane. One has to re-examine the very ideas and ideals that are striving to take over the society and are increasingly becoming dominant in education, and one has to combat them not through the trendy workshops but through creating a more enabling vision of school and the process of education.

Children are being mercilessly overschooled in this misdirected educational system. That is one alarming aspect of Indian school education today. The other equally alarming aspect is millions of children grow up without entering a school, and many of those who enter drop out of unconcerned schools without learning anything.

A very brief survey of the present-day classrooms would be enough to convince a keen observer that the most marked features of most of our educational practices in schools are a dull routine, bored teachers and students, and rote learning. A perusal of the present practices followed for the development and use of curriculum, syllabi, and textbooks does not provide a very encouraging picture in terms of either eliminating

this gloom in the classroom or pursuing the higher goals of education in a more meaningful manner. It is largely a monolithic system, perpetuating a kind of education that aims at producing standardised products that can pass certain examinations, rather than thinking, sensitive, capable, and responsible people.

Nevertheless, this gloom in the classroom is not unchallenged. There are a number of examples, from both the government and the non-government sectors, where efforts have been made to develop innovative curricular approaches leading to encouraging results in terms of both classroom practices and children’s learning. These experiences provide examples of exploring possibilities, teachers who are more autonomous, children who participate meaningfully in the process of education, cheerful classes, and increased learning. This position paper makes an effort to provide a framework to explore possibilities of increased choices for the schools and teachers, and a greater role for children and community in making those choices, on a large scale.

One of the most important features of the present set of practices adopted for development of curriculum, syllabi, and textbooks is that it is guided by the patterns and requirements of the examination system, rather than by a mix of criteria based on the child’s learning requirements, aims of education, and the socio-economic and cultural contexts of learners. In most cases, the term curriculum is used to mean very different things by different users and even by the same user in different contexts. It is usually referred to as the scheme of studies, where different subjects are seen in isolation and the subject-knowledge is embodied in the respective textbooks, to be memorised by all children. The socio-political, geographical, and cultural diversities that exist across different areas are usually ignored and the same textbook is viewed solely as

representing the entire gamut of curricular needs and is used in the entire state. Despite several policy documents, curricular frameworks, and programmatic approaches mentioning the need for further decentralisation of curricular material development, at least up to the district level, there has rarely been any effort to facilitate this. The changes that have come over the years are either largely superficial in nature, leading to some tinkering here and there, or iterative where one or two new subjects/topics have been introduced because of one or more kinds of pressures, from central organisations, the judiciary, or some other pressure group.

The frame for the present practices followed for the development of curriculum, syllabi, and textbooks is largely guided by the national policies adopted since early 1970s. Starting from the early seventies, almost all states have adopted the 10+2 pattern of school education structure with a few exceptions where +2 or the senior secondary stage still continues to be partially managed by college education and governed by the university system. The adoption of 10+2 structure of education was promoted to mitigate the marked differences in the schemes of studies and bring some sort of harmony in the curriculum, syllabi, and examination patterns. The states were also encouraged to have autonomous examination boards to determine the curricula and examination pattern at both secondary and senior secondary levels. Although the role and functions of different boards, and the ways in which they undertake similar functions, vary greatly, they are viewed as mere examination conducting bodies and whose main responsibility is certification. As such, the nature and pattern of examination becomes the binding direction for the curricular approaches rather than this being the other way round. Some kinds of curriculum approval bodies also exist in some states. What is

interesting is that the nature of structures that exist guides the nature of the curricular approach rather than the curricular approach determining the nature of structures required.

Barring a few states, elementary or the first seven or eight years of education was kept outside the purview of state education boards in most states. The State Council of Educational Research and Training (SCERT; known by a different name in some states), which came into existence around the same time as the boards, mainly by merging some of the existing teacher training institutions, are usually responsible for developing the syllabi and textbooks at the elementary level. The nature and functioning of the SCERTs also varies in certain respects. The National Council of Educational Research and Training (NCERT), the apex body at the national level, is expected to guide the states by providing a national framework for curriculum development and by building capacities at the state level both at the elementary and secondary level.

For a variety of reasons, the space for experimentation has been relatively greater, and hence the presence of creative experiences has also been higher at the elementary level. In certain cases, the states themselves have attempted to redefine curriculum and accordingly develop textbooks and other materials. For instance, Kerala adopted a new curricular approach, the process of developing textbooks, and teacher support materials for the primary stage under the District Primary Education Project (DPEP). The DPEP did encourage states to undertake such exercises but the nature, intensity, and depth of such initiatives varied from one state to the other. Much before the DPEP was implemented in selected districts and states, Eklavya, a voluntary organisation in Madhya Pradesh, developed a different approach for primary education, known as Prathamik Shiksha Karyakram (Prashika). This

was developed based on real experiences of teaching in government primary schools in rural areas. This experience later became an important reference point for those exploring new possibilities and the basis for a curricular package called ‘Seekhna Sikhana’ in Madhya Pradesh. Digantar, a small NGO in Rajasthan running a few schools for children coming from lower socio-economic strata in the outskirts of Jaipur, has been following a different curricular approach for more than two decades. The organisation has been actively sharing its conceptions and experiences with other government and non-government agencies. The curricular design and the pedagogy of the Alternative Schooling system built in Madhya Pradesh under the DPEP was based on Digantar’s philosophy and approach. Several districts in Karnataka have adopted a textbook-free approach of teaching where the progression is guided and determined by a series of activities. This approach has been guided by the experiences of the Rishi Valley, an NGO working in Andhra Pradesh.

The very presence of these examples suggests the need for going into the reasons as to why was the prevalent practice considered inadequate and/or unsuitable. It is important to analyse whether the existing policy and curricular frameworks provide unambiguous aims and facilitate development of flexible and appropriate curricular approaches for achieving those aims. What are and what ought to be the conceptions of curriculum, syllabi, and textbooks if seen from the multiple lenses of the democratic polity, human philosophy, and theories of learning? How best can the principles of the various aspects of curriculum be defined so as to facilitate an education process which is stimulating and leads to development of rational, responsible, and caring human beings working towards a society which values equality, justice, democracy, and plurality? This position paper makes

an attempt in this direction through exploring possibilities of providing greater space for choices to the teachers and students, as one recent graduate of school education in a conversation with one of the group members remarked *“the children should be allowed to think and the teachers should be allowed to teach as they consider fit”*.

2. A POLICY PERSPECTIVE

2.1 A Curriculum for Equality?

The commitment towards achieving equality through education has consistently and unequivocally been voiced through the policy documents of independent India, including the reports of the two Commissions related to school education and the National Policy on Education 1986 with its review in 1992. The Secondary Education Commission Report (1952) had envisaged schools to play a crucial role in developing democratic citizenship, emphasising that “democracy is based on faith and in the dignity and worth of every single individual”, where the “innate ‘worthfulness’ cannot be eclipsed either by economic or racial or social consideration (p. 20).” As the first commission on school education of an independent country carved out of a traumatic partition, it sought schools that would lay the foundation for patriotism and cooperation, based on “an openness of mind and largeness of heart”, and not through the “dragooning of different beliefs, ideas, tastes and interests into uniformity, which may possibly make for efficiency in a narrow and inferior sense, but inevitably impoverish life and curb the free expression of the human spirit.” It called for educational opportunities that would translate into practice a passion for social justice *“inspired by the faith that social purposes are worth striving for, that life in a democratic set up is not playing for one’s own hand but calls for a strenuous endeavour to equalise opportunities for all, and an unrelenting fight for justice for the under-privileged.”* (p. 21)

The subsequent Education Commission (GOI, 1966) had focused on a socialist democratic vision of national development, where equality of “education is deliberately used to develop more and more potential talent”. Warning that “History shows numerous instances where small social groups have used education as a prerogative of their rule and as a tool for maintaining their hegemony” (Section 1.16), it had strongly recommended the Common School System (Section 1.36). It declared that: “It is the responsibility of the education system to bring different social classes and groups together and thus promote the emergence of an egalitarian and integrated society. But at present, instead of doing so, education is itself tending to increase social segregation and to perpetuate and widen class distinctions.... The position is thus undemocratic and inconsistent with the ideal of an egalitarian society. The children of the masses are compelled to receive sub-standard education ... while the economically privileged parents are able to ‘buy’ good education for their children. This is bad not only for the children of the poor but also for children from the rich and privileged groups. It gives them a short-term advantage in so far as it enables them to perpetuate and consolidate their position.... By segregating their children, they prevent them from sharing the life and experiences of the children of the poor and coming into contact with the realities of life. In addition to weakening social cohesion, they also render the education of their own children anaemic and incomplete” (Section 1.36, 1.37). It proposed the ‘neighbourhood school’ to “compel the rich, privileged and powerful classes to take an interest in the system of public education and thereby bring about its early improvement” (Section 10.19).

This proposal was subsequently upheld by the National Policy on Education (NPE) 1986, which recommended that “up to a given level, all students,

irrespective of caste, creed, location or sex, have access to education of comparable quality” (Section 3.2). The commitment to provide education that promotes equality through ‘removal of disparities’ was again expressed by the Review of the NPE in the Report of the Ramamurthy Committee (1992): “To promote equality, it will be necessary to provide for equal opportunity to all not only in access, but also in the conditions for success. Besides, awareness of the inherent equality of all will be created through the core curriculum. The purpose is to remove prejudices and complexes transmitted through the social environment and the accident of birth (section 3.6)”. It recommended that government schools be transformed through quality improvement into genuine neighbourhood schools and that *private schools should also be made freely accessible*. “The new Policy will lay special emphasis on the removal of disparities and on equalising educational opportunity by attending to the specific needs of those who have been denied equality so far (section 4.1)”. Moreover, despite reservations about the iniquitous programme of a few well-endowed Navodaya Vidyalayas set up by the government, the policy could not change the course of things to come.

As it stands today, the system of public education has been rendered more unequal and differentiated than ever before, with increasing numbers of poor-quality and low-cost centres and ‘alternative schools’ being established for the poor. Moreover, the vocational stream remains the least sought after, being perceived as one meant for the ‘less able’, while poor families despair that schools alienate their children from their own vocations and livelihoods. This has happened despite the Ramamurthy Committee (1992) recommendations to link work with school through a common curricular stream having both vocational and non-vocational components, and different options with

varying proportions of the two components. It had stated that *vocationalisation of school education must be seen in the context of equity and social justice, contrary to the present system where the vocational stream is clearly viewed as the one meant for the less able and the less fortunate* (Section 2.2.6).

2.2 Contested Conceptions of Uniformity and Flexibility

The challenge of translating the vision of equality into a curricular framework has remained unanswered, and as reflected in the series of Curriculum Framework documents (NCERT 1975, 1988, 2000) that followed, these wishful statements were not always matched with consonant conceptions of what formed a democratic and ‘equalising’ curriculum. The first doubts and tensions appeared in the 1975 document on the Curriculum for the Ten-year School, where it was stated that “For a vast country like ours with its diversity of languages, social customs, manners, mores and uneven economic development, the needs and demands of individuals and society will have differential pulls on the school curriculum, varying from one region to the other. For the sake of uniformity of standards and of national identity, therefore it is necessary to develop a common curriculum within a broad framework of acceptable principles and values” (Section 2.1).

This central concern for what was then ambiguously called ‘uniformity of standards and national identity’ served as a justification for the centralising tendency in curriculum construction. While the 1975 Curricular Framework confessed that the task of effecting ‘internal transformation’ of education to address the life, needs, and aspirations of the nation was becoming increasingly difficult under the mounting pressure of growing numbers of children, and owing to ‘rigid postures and orthodox attitudes’, it could not radically transcend these limitations. Some broad

statements of objectives were made, which provided no indication of how a curriculum was to be designed to address the vision of education for children from diverse cultural and social backgrounds, while the document moved directly to the teaching and content of subject areas.

That children learn through active engagement with their experiences, and that their learning and development is shaped by their cultural capital, including how their societies have looked at the social and physical world around them, was never acknowledged. Also, the concern articulated by policy documents that the existing format of schooling, including the selection of the syllabus, the teaching approaches, and the examinations, was alienating most children and consistently reinforcing inequality was never addressed. The 1975 document continued to speak of the diverse requirements of children only in terms of “the special needs of the talented, the backward, and those coming from non-formal channels”. In fact, its section on ‘The Core Curriculum and Beyond’ delineates how schools would need to go beyond the core curriculum to provide ‘additional inputs’ for those who may offer to study ‘advanced units’; similarly, “students coming from the less fortunate schools or from non-formal education may also need remedial units or bridging units which schools would have to provide” (section 2.15).

2.3 Limited Notions of the ‘Curriculum’ and ‘Beyond the Core Curriculum’

The basic problem in conceptualising ‘flexibility’ or ‘diversity’ was closely tied to the system’s inherent limitation and inability to define the role of the ‘curriculum’ in the first place. What was understood to be the ‘curriculum’? It seemed to inevitably imply a fixed core content, which was variously called the

‘syllabus’ and also the ‘standards’, and was in the form of a list of topics derived from the subjects to be taught, so that going ‘beyond the core’ meant only providing either ‘enrichment for the talented’ or ‘remedial inputs for the backward’.

This limited view of ‘curriculum’ was again manifested in the 1988 document ‘National Curriculum for Elementary and Secondary Education: A Framework’, which tried to define the ‘core’ through what were called the ‘Minimum Levels of Learning (MLL)’ (Section 2.2). There were several problems with this formulation and we shall not dwell on these here; it may suffice here to point out that the ‘levels’ were attempted to be defined in behavioural terms, and were dictated by the belief that differences lie in terms of hierarchical ‘levels’ rather than in equally valid but different ways of learning. We find in Section 2.2 the statement that:

A high degree of flexibility and local initiatives are envisaged in designing and introducing remedial and enrichment programmes and materials not only by the State educational authorities but also by the individual schools and teachers to cater to the needs of slow and fast learners studying in the same class/grade in a school. However, the scope for flexibility in methodology and approach to transaction of curriculum is not expected to be used for introducing differential courses or similar measures which would accentuate disparities in standards of education in different parts of the country.

This reluctance of the system to allow for true plurality and flexibility in the curriculum, as well as the restricted meaning of the term ‘curriculum’ itself, was most clearly evident when the National Advisory Committee presented its report ‘Learning Without Burden’ (GOI, 1993). Some of the recommendations of the Committee were as follows:

The process of curriculum framing and preparation of textbooks be decentralised so as to increase teachers’ involvement in these tasks. Decentralisation should mean greater autonomy, within state-level apparatus, to district level boards or other relevant authority, and to heads of schools and classroom teachers to develop curricular materials on their own, best suited to needs of local environment. All the schools (must) be encouraged to innovate in all aspects of curriculum, including choice of textbooks and other materials (Recommendation No. 2a). Voluntary organisations with a specific commitment to pedagogical innovations within the formal or non-formal system (must) be provided greater freedom and support in development of curriculum, textbooks and teacher training (Recommendation No. 2b).

The schools affiliated to CBSE in the states other than Delhi enjoy the prestige of being elite schools. The CBSE curriculum becomes a trend-setter for the State Boards leading to heavier curriculum for majority of children. Therefore the Committee recommends that jurisdiction of CBSE be restricted to Kendriya Vidyalayas and Navodaya Vidyalayas and all other schools be affiliated to the respective State Boards (Recommendation No. 4).

The Ministry subsequently set up its own Group, chaired by Y.N. Chaturvedi and constituted mainly of bureaucrats, to give views on the ‘feasibility of implementing the recommendations’ of the Advisory Committee. This Group countered most of the radical recommendations of the Committee, giving comments that reflected both its failure to appreciate the import of the Report and its own orthodoxy in educational matters. In fact, wherever the Committee speaks of the ‘curriculum’, the Group responds using the word ‘syllabus’, showing that it considers these terms to be identical. It also completely misses the point about the need for decentralisation in curriculum development, through local participation and ownership, and in which

evaluation and certification constitute an important and often the most crucial component. It concedes at best to different curricula for ‘different socio-cultural geographical zones’ but that too developed centrally by the national/state agencies.

For instance, the Group’s responses to the Recommendations 2 and 4 quoted above state that:

The Group feels that while the size of committees at national or state level cannot be increased beyond a limit, a meaningful way of improving teachers’ participation would be for either the NCERT/CBSE/State Boards/SCERTs to prepare the draft syllabus and finalise it after subjecting it to regional or district level consideration by a large body of teachers or, in the alternative, to get multiple syllabi developed at regional and district levels on the basis of which the final syllabi could be prepared at the state/national level. The Group however, does not recommend decentralisation in the preparation of syllabi or textbooks at the district or school level because it will be difficult to ensure *adequate projection of national identity and of composite culture of India. Also in such a situation, the adherence to even minimum standards in all parts of the country may become difficult* (p.5, emphasis added.).

The Group however, shares the concern of the Yashpal Committee that many textbooks presently tend to project predominantly the urban middle class life style. Therefore, the Group recommends that... in states which have distinct socio-cultural geographical zones, different and parallel sets of textbooks with the same learning objectives should be prepared and used... The textbook preparation agencies should undertake systematic review of all textbooks to ensure that any trivial matter which may have got included in the textbooks is weeded out (p.6).

As for CBSE it relies heavily on the NCERT for developing syllabi and preparing textbooks....Rightly the NCERT keeps in view the existing standards in the country, the capability of students, and standards in developed countries...If there is unnecessary

material in some of the NCERT books, it should be eliminated. However, *there is not adequate material on record to substantiate that the CBSE syllabi or NCERT books per se are overloaded. ...If affiliation to the CBSE is good for Kendriya and Navodaya Vidyalayas it cannot be bad for other schools* (p.10).

2.4 The Role of the Textbook and ‘National Standards’

The Secondary Education Commission (1952) had pointed out that the then curriculum was “narrow, bookish and theoretical” with an overloaded syllabus and unsuitable textbooks. It had suggested that the curriculum should not be divided into a number of watertight subjects, but that all subjects should be inter-related and should include relevant and significant content so that it could touch the lives of students. It also recommended that a high powered committee be set up in every State for selecting textbooks and for laying down appropriate criteria, emphasising that “No single textbook should be prescribed for any subject of study, but a reasonable number which satisfy the standards laid down, should be recommended, leaving the choice to the schools concerned” (p 83).

The subsequent Education Commission (1964–66) continued to highlight the poor quality of school education and commented on the low quality of textbooks, owing to the lack of research related to their preparation and production, and the lack of interest of top ranking scholars in this area. It called for the definition of ‘national standards’ and recommended centralised textbook production to conform to those, starting at the national level and also supporting establishment of bodies at the State level. In hindsight, we can see that the problematic role of the textbook continuing from the colonial education system, which has assumed a sacrosanct position in the school and the classroom, marginalising the role of the curriculum

and the syllabus, was further strengthened from the then expectation that the ‘nationally produced’ textbook would ‘far more precisely’ indicate the national standards.

The definition of these (national) standards as well as the organisation of a programme for their practical implementation will be greatly facilitated by the production of textbooks at the national level. *Such books can indicate the expected standard of attainment far more precisely than any curricula or syllabi*; and their practical use in schools is the surest method to raise standards and make the teaching in schools in different parts of the country fairly comparable. In a subject like science and mathematics there is not much scope for local variations and the adoption of common textbooks in all parts of the country is not only feasible but also desirable from several points of view... History is another difficult subject to teach, especially from the point of view of social and national integration, and authoritative well written books on the subject can be of immense help to all teachers. *At present there is hardly any common book which all the students in India read and is one of the reasons why our educational system contributes so little to national integration* (Section 9.19).

There are problems in the notion of ‘common’ textbooks across the country, in either science or history, especially since now, forty years later, there is a more nuanced understanding of child development and pedagogy that shows that learning happens when the ‘content’ of curricula is contextualised in the child’s experiences and cultural knowledge, whether of plants, animals, people, or processes. However, at that time the recommendations seem to be guided more by the need to attract the best ‘national’ talent to contribute to the improvement of school education. Indeed, the Education Commission also saw this process of producing ‘national books’ as one that would help build capacities and “stimulate other centres into activity and especially promote similar enterprise at the State levels” (Section 9.20). “Even in areas where national books are

available, independent attempts by States will stimulate each other and the Centre itself”. For this it had recommended “a separate agency, preferably functioning on an autonomous and commercial basis, in close liaison with the Education Department” (Section 9.21).

Moreover, its own dilemma in proposing ‘nationalisation’ of textbooks is apparent when it attempts to somehow mitigate the problem of uniformity and homogenisation and calls for a multiplicity of textbooks:

No useful purpose it served by having only one textbook in a subject for a given class – this is almost invariably the position under the existing programmes of nationalisation. It should be an important objective of policy to have at least three or four books in each subject for each class and leave it open to the teachers to choose the book best suited to the school. This is necessary even if there were to be a common syllabus for all schools. We have recommended, however, that there should be more than one approved syllabus and that each school should be permitted to adopt the syllabus best suited to its own condition (Section 9.21).

2.5 Supporting Decentralised Curriculum Development

The past ambiguity in decentralising and diversifying curricula and textbooks reflects a perceived need for appropriate mechanisms to ensure quality, conformance with common ‘standards of attainment’ as well as to a broad national democratic vision. It becomes necessary to see how these concerns can be viewed and addressed in the present context. At the present juncture in time, on the one hand, several States have already initiated the process of developing their own textbooks, and conduct their own Board Examinations. In fact, the notions of curriculum and syllabus effectively lie collapsed in the textbook, which is taken to be the only indicator of what needs to be ‘covered’ for the examination. What is actually learnt by children and how the curriculum helps shape their development has thus got obscured.

This subversive role of the textbook has not only distorted its academic purpose but also allowed it to be used as a means of political and ideological propaganda by the State. In addition, private schools are increasingly opting for alternative textbooks by private publishers in classes that are relatively free from pressures of the Board Examination, and the market is increasingly exercising its influence, looking for ways to circumvent the control of the Board. The concerns for ensuring quality, broad ‘standards of performance’ and avoiding subversion of democratic norms get even more amplified in this scenario.

The present programme for universalisation of elementary education, namely the Sarva Shiksha Abhiyan, also calls for decentralisation of curriculum development to be done at the district level, highlighting the need to build capacities of District Institute of Education and Training (DIETs) and other related organisations. We endorse this need and recommend that the NCERT and other national bodies must consciously promote building of capacities in decentralised curriculum development and textbook production, in the States and at the district level. The articulation of broad standards of performance could be undertaken as part of the present National Curricular Review.

It is also suggested that appropriate regulatory mechanisms be created by establishing an independent body at the State level with a federal national structure to approve different curricular packages, which include textbooks, teacher training and recruitment processes, assessment and examinations, etc. The national structure may be answerable to the Central Advisory Board of Education (CABE), and should produce professionally developed criteria and guidelines,

conduct documentation and review, and ensure appropriate consultation and sharing among the State bodies. It must also ensure that the process of regulation is kept transparent and all reports are made public. The State body must be constituted of persons with professional experience in education and also from NGOs and State Commissions on women, SC/ST, etc.

We envisage that this State body will review and approve all curricular packages developed and used in different districts, and share its reports and materials at the National level. It must be ensured that this State body and the national structure must itself not have any conflict of interest and must not itself be involved in the development of curricular packages, including production of textbooks, conduct of examinations, etc. In the light of this process, all textbooks, even those produced by private publishers would be reviewed and approved by the State bodies. Moreover, our group strongly recommends that the regulatory mechanism must be professionally worked out to carefully avoid the attendant distortions and problems that may arise out of bureaucratic and political pressures, vested interests or even corrupt practices, within bodies established to approve the curricular packages¹.

3. MAPPING THE CONCEPTUAL FIELD: NOTIONS OF CURRICULUM, SYLLABUS AND TEXTBOOK

3.1 The Existing Scenario

The notions of curriculum and syllabi as existing in the three National Curricular Frameworks (NCFs) are close to each other. The NCF 75 actually defines the curriculum and syllabi. However, this notion of curriculum and syllabi does not include aims of education; it rather sees the aims as guiding the

¹ One member of the group disagrees with the recommendation of setting up such a national body.

curriculum from outside. The other two documents also do not take up the task of defining but largely follow the same definition. All the NCFs emphasise the concerns and issues but do not make a very clear connection between the concerns, aims, and curricular content. The pedagogy and the view on knowledge also remain hazily defined. Thus, though the NCFs seem to have some form of definition for curriculum and syllabus, the relative importance of elements within the form and their interconnections remain either unexplored or even entirely neglected. The rationale for almost all prescriptions is left unstated.

Most of the state level curricular documents are poor imitations of the NCFs and the emphasis is mainly on the scheme of study—time and weightage allocation—and syllabi. Most of them do not even see the larger picture of curriculum. Educational writing and discussion largely remains equivocal in the use of these terms. Even the most of innovative programmes, which have taken a much more flexible approach to curriculum, do not seem to have seen the entire picture. They often amplify their chosen aspect of education disproportionately.

The view taken on learning is often articulated in national and state documents, and most fervently in the NGO documents. The overall impression one gets in the national discourse on education is that a theory of learning, even if defined loosely and not very clearly, is all that is needed to plan education in general and curriculum in particular. There is hardly any mention of a view taken on knowledge beyond what is necessitated to articulate the chosen view of learning.

3.2 A Conceptual Framework and Operational Definitions

As mentioned above, the term ‘curriculum’ is one of the most ambiguous terms in present-day educational discourse in our country. It may be used to denote a mere subject-wise list of topics to be taught in a particular class on the one hand, and something that encompasses “the total experience provided to the children in as well as *out of school*”² on the other. There can be umpteen positions between these two ends of the spectrum and as many views of ‘curriculum’³. The situation seems to be somewhat similar in many other countries. “Unfortunately”, writes Christopher Winch, discussion of what ought to be taught “is sometimes made opaque by an either too wide or too narrow definition of what constitutes the curriculum. So, for instance, we have heard it said – by a Government appointed Inspector of Education – that the curriculum is ‘everything that goes on in school’ which would make the colour the school walls are painted a question of curriculum choice and bullying a part of curriculum content (see also Whitfield 1971). Conversely a definition such as a ‘planned, sustained and regular learning, which is taken seriously, which has a distinct and structured content and which proceeds via some kind of stages of learning’ (Wilson 1977) would make some activities which children engage in at school but which, arguably, are not taken seriously, e.g. woodwork, not part of the curriculum. The key to understanding the question of curriculum choice is to visualise the relationship between the curriculum and the aims of education. *The curriculum is the plan for the implementation of educational aims.*”⁴

² *Primary Education Curriculum, Government of Kerala. (Emphasis added.)*

³ Digantar, *Activity Based Teaching in Kerala and its Achievements: A study of pedagogical interventions in DPEP*, „2002.

⁴ Christopher Winch, *Key Concepts in Philosophy of Education*, Routledge, London, UK

In India, there is a tendency to take too wide a definition of curriculum in much of recent literature. All the publications under DPEP, many innovative NGOs, and recent discussions in curriculum seem to say too often that everything that happens in the school is part of the curriculum. On the other hand, at practical level, syllabus, construed as a list of objectives and topics in a particular subject, is often referred to as curriculum. These two tendencies may look contradictory in the first glance—literature claims everything to be curriculum and the planned/provisioned view covers an extremely narrow part of the school experience—but the very declaration that everything is curriculum is a challenge to planning. Therefore, what is considered essential is planned, and rest of the ‘broad vision’ of curriculum is left to happening by chance.

In an attempt to construct a meaningful notion of curriculum, it is important to note that in spite of all differences the main question that curriculum is concerned with is ‘what sort of things we ought to teach in our educational institutions.... It is important to note that the question is one concerning prescription (what ought to be the case), and not merely of description (what actually is the case). And this question is the question of curriculum choice.” [Winch] In the same vein, the four fundamental questions that form the basis of Ralf Tyler’s classic book *Basic principles of curriculum and instruction* still provide a good guide to move in this direction:

1. What educational purposes should the schools seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organised?

4. How can we determine whether these purposes are being attained? (Tyler, 1949, 1)

In 1975, the Curriculum Committee that wrote ‘The curriculum for ten-year school: A framework’ defined what it meant by the term ‘curriculum’: “A curriculum may be regarded as the sum total of all the deliberately planned set of educational experiences provided to the child by the school. As such it is concerned with

- (i) the general objectives of education at a particular stage or class
- (ii) subject-wise instructional objectives and content
- (iii) courses of studies and time allocation
- (iv) teaching–learning experiences
- (v) instructional aids and materials
- (vi) evaluation of learning outcomes and feedback to pupils, teachers and parents.”

This definition seems to engage with the four fundamental questions asked by Tyler, barring the fact that it is reluctant to address the first one of them squarely. The definition, though talks of “the general objectives of education at a particular stage or class”, leaves the general aims of education to guide the curricular efforts from outside. It would be difficult to imagine any curriculum in the absence of general educational aims; therefore, one might speculate, perhaps the committee considered the issue of aims more as a matter of policy than as a matter of curriculum. Therefore, it sees curriculum as more or less synonymous with syllabus (if one can use the singular term ‘syllabus’ for a ‘set of all syllabi of school subjects’).

There seems to be an ambiguity as to whether, as per the definition, curriculum is ‘concerned’ with ‘the underlying principles to decide’ or with ‘detailed descriptions’ of what is listed in points (ii) to (vi). If it is

the detailed description that is intended, then the definition is clearly that of syllabus. And if propagated as 'curriculum', it would limit choices that should be made by the schools and teachers keeping in view the profile of their students. A curriculum, seen from a wider perspective, is different from a course of study; it provides a basis for a course of study rather than being itself a course of study.

Another question that arises in connection to this definition is that of justification. What are the justifications for accepting stated curricular objectives, content to be taught, methods to be adopted, and so on? Justifications or basis for curricular choices are very important. Almost all curricular choices admit an alternative point of view; in fact, the very notion of a choice implies picking up one alternative from several available ones. A random picking up can hardly be called a choice. It merits calling a choice only if there are sharable grounds for the selection made. Thus, curricular choices need to be justified on commonly acceptable grounds.

Thus a fuller and usable definition of curriculum can be: *"Curriculum is, perhaps, best thought of as that set of planned activities which are designed to implement a particular educational aim – set of such aims – in terms of the content of what is to be taught and the knowledge, skills and attitudes which are to be deliberately fostered"* (Winch) *together with statements of criteria for selection of content, and choices in methods, materials and evaluation.* (Stenhouse)

The six boxes shown here represent six broad and slightly overlapping areas of choices, their usual names are indicated but their 'content' has not been suggested. The bullets (*) shown in the boxes mean that something has to be written there, these boxes are just a convenient way to indicate groups of questions. If one takes development of 'autonomy based on reason' as an example of a general aim of education, it can be written next to one of the bullets in the area demarcated for

aims. Similarly, when all the questions are appropriately answered, keeping in mind the linkages and consistency between different answers, this structure would be an example of a curriculum.

As understood here, a curriculum is neither a document nor a sequence of experiences. It is a plan of facilitating learning for the child. This plan starts from where the child is, enumerates all the aspects and dimensions of learning that are considered necessary, gives reasons why such and such learning is considered necessary, and what educational aims it would serve. The plan also defines stage-specific objectives, what content to teach, and how to organise it. It also recommends general principles of teaching methods and evaluation and criteria for good teaching–learning material. Such a plan, of course, is almost always set in a document or a set of documents and implemented through organised experiences for children under teachers' guidance; but perhaps conceptually the plan should remain in focus, while the document remains a contingent reality and the course of experiences as implementation of a plan.

What one needs to keep in mind is that all these terms evolve historically and serve certain purposes in a discourse. They are part of attempts to evolve better conceptual tools to reflect on practice and gradually refine it. Therefore, as it is possible to construct appropriate and very useful concepts, it is also possible to construct unhelpful concepts and definitions that blur the discourse rather than enlightening it. One needs to have no quarrel with any concept per se, but should carefully consider its suitability and coherence with the purpose, on the one hand, and acceptability in the general discourse on education, on the other.

3.3 Detailing for Implementation

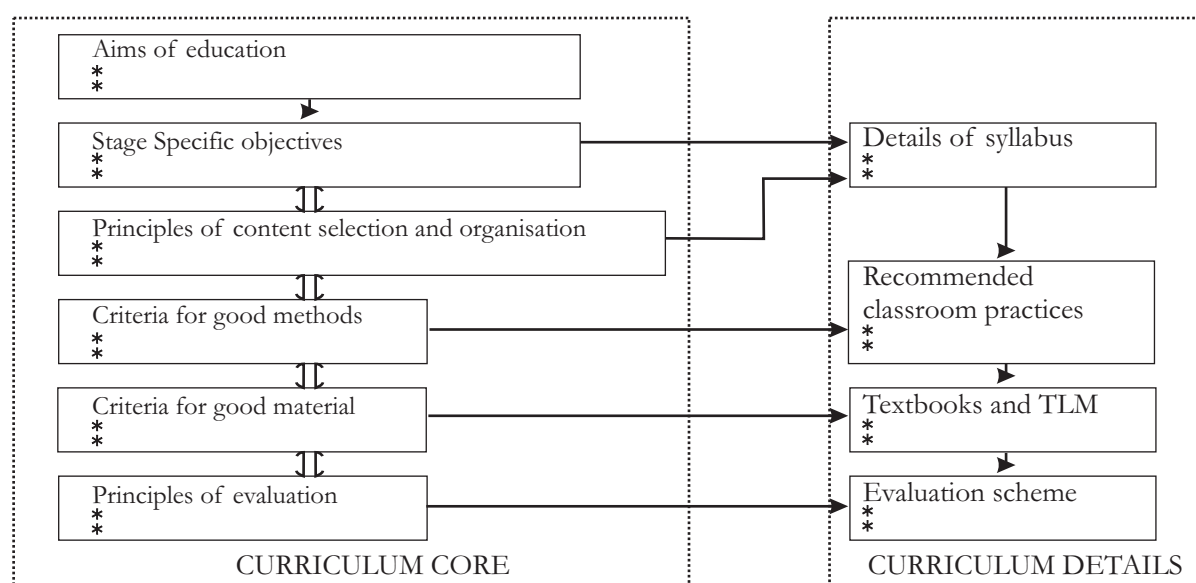
The curriculum, as defined here, is more of a conceptual structure for decision making rather than

details of what is to be done in the classroom. The structure suggested above requires workable principles and criteria in most of the slots and not detailed descriptions or lists. For example, it demands ‘principles’ on the basis of which content could be selected and organised for students but does not require ‘selected and organised content’ that is to be taught. However, working in a classroom most definitely requires selected and organised content and detailed ways of interacting with the children and classroom organisation. One needs actual teaching learning material and not only the criteria on which it could be developed or chosen, which means that further detailing on the basis of this curriculum would be needed to complete the picture.

On the basis of ‘stage-specific objectives’ and ‘principles of content selection and organisation’, a selection of well-connected concepts, information, principles of knowledge construction, validation criteria, skills, values, attitudes, etc. could be made and formed into an organised body of knowledge suitable for the particular stage for which it is being planned. Thus, a *syllabus* for a particular stage could be generated from a given/accepted curriculum.

It must be emphasised here that what is to be included and what is not to be included in the syllabus will also be informed by the methods of teaching that are going to be used, or in other words, decisions on methods of teaching would have to be made simultaneously with the choice of content. But then, there can also be occasions when it might seem to be desirable that a particular topic should be taught (on the basis of implication of objectives and/or principles of content organisation) at a certain stage, and subsequently one looks for selection of appropriate ways of teaching it. If there is a situation where a topic X is seen as desirable to be taught at stage Y, but there are no appropriate methods available to introduce it to that age group of children, then perhaps the better course of action would be to wait for development of appropriate methods rather than insisting on introducing the topic.

In a similar manner, actual teaching would require details of methods, a variety of teaching–learning material, and a suitable evaluation system. The new picture would be somewhat like the diagram below:



The curriculum details provide the teacher with actual tools of classroom practices, while the curriculum core provides a rationale, up to a certain extent, for adopting those practices. Thus, the classroom practices can be connected with the larger goals of education. It could be plausibly argued that this conceptual structure enables the teacher to create a dynamic ‘discourse’ between theory and practice, and between educational ideals and educational practices.

When a teacher starts working with children in classrooms, he/she has some ‘content’ that he/she wants to teach them. They also have, at least in their minds, some ‘methods’ of teaching. They also use some material, minimal or elaborate, and have some idea about what it would mean to ‘have learnt something’ and what would be the appropriate indicators of that learning. In other words, they have a syllabus, appropriate methodology, a set of teaching–learning material, and a system of evaluation. That is the minimum academic preparation to embark upon teaching.

However, that does not mean that each one of these components of classroom practices is well defined and clear in the teacher’s mind. Very often, the only thing a teacher has is the textbook. The textbook becomes an embodiment of syllabus—*all that is in it has to be taught, and that is all that is to be taught*. It becomes a methodological guide—*has to be read and substantial portions memorised through repeated reading*. It also becomes the evaluation system—*questions at the end of each chapter have to be answered orally and in writing, reproducing the text from the book itself*. Here the textbook is an embodiment of the syllabus and of all aspects of classroom practices.

But this undistinguished way of looking at the textbook and teaching is totally unreflective. It becomes a very binding, routine, and mundane activity, which has very little to do with growth of children’s

understanding and their capabilities. All because the conceptual model that guides teachers’ practices is incapable of helping them to learn from their own experiences, to connect their activity of teaching to human life, and to take into consideration children’s experiences. It is a necessary (only necessary, not sufficient) condition for the teachers to understand the nature and purpose of their activity to liberate themselves and their students from the oppressive tyranny of the mundane routine imposed by such an unreflective use of textbooks. Then only can they become dynamic decision makers in the classroom and can be able to engage not only with the textbook but also with the children’s minds.

Understanding that the textbook is only a tool, a convenient organisational mechanism to collect together at one place what the children are expected to learn, and awareness of the conceptual difference between the syllabus and the textbook are the two important conditions that enable the teacher to look beyond the textbook. The possibility of experiences of children being considered within the classroom gets a little boost with this distinction. In turn, the possibility of choice between the textbook and other experiences/resources encourages reflection on the choices made and, eventually, on the possibility of an improved textbook itself. Similar arguments could be made concerning conceptual distinction of teaching methods, evaluation, and between textbook and other material.

The point being deliberated here is *development of reflective teaching practices is a necessary condition for learning from one’s own experience*. Reflective practices necessarily require theoretical models to organise experience into knowledge that can be shared, publicly examined, and used in situations other than in which this knowledge arises. It can also be argued that there is no teacher who does not have the ideas of syllabus, pedagogy,

material, and evaluation. But there are very few who have them well articulated, rigorously examined, and reasonably justified on the basis of more general and widely shared principles and assumptions. Also, there are very few teachers who have rigorously worked out implications of the ideas held by them for classroom practices. The teachers are neither expected to make these distinctions nor provided with any opportunity to do so. Introduction of theoretical models, of which there is a variety, is a potent way of engendering reflective practices and encouraging autonomy of the teacher. The question is not what particular model does one have; it is whether the model an educator has can be shared with others and debated about.

However, linking classroom practices with syllabus, pedagogical choices, variety of teaching–learning material, and evaluation system is just the first step towards reflective practices. What is being taught, how, with what material, and how the learning shall be assessed can be explained and reflected in terms of syllabus, etc. But what forms the basis for the choices made in syllabus, pedagogical decisions, textbooks, etc.? We have seen that what we called curriculum should detail the reasons for these choices. But those reasons themselves may require further explanations and grounds for accepting them. Even at the cost of reiteration, let us take an example to understand this issue.

Suppose we want children at the upper primary level to notice, as part of their social sciences curriculum, the difference in treatment meted out to girls and boys in their village. And we want it to be ‘learnt’ through an active engagement with observing parents when they interact with their children and interviewing children themselves. Suppose one asks the teacher: *Why do you want the children to notice this difference and then keep this information in mind?*

Dialogue A

Answer: Because it is written in the syllabus, and shall form part of the examination.

Question: Why should it be part of the syllabus at all?

Answer: So that the children can understand the disadvantages girls face in their bringing up and social living.

Question: Why, as teachers, are we interested in what disadvantages girls face?

Answer: Because this will become the basis of children’s further understanding of issues of social justice, equity, and their socio-economic reasons.

Question: Why is this knowledge and understanding supposed to be of interest?

Answer: Because it seems to be a reasonably effective way of developing sensitivity to issues of social justice, a commitment to equity and capability to act to correct the balance.

Of course, one can carry on the dialogue by further demanding: *Why should we bother about sensitivity to social justice, commitment to equity and capability to act in favour of these values?* But this brief series of questions and answers is enough to illustrate the points that need to be made here. One, in order to justify a small piece of content (it is only a way of elaborating, there can be no piece of content disconnected from the whole body of knowledge) in syllabus one has to refer to broader principles and values. These principles and values would point towards the kind of society considered desirable and how one thinks human beings should live. Looking from the other side, if education is supposed to contribute to actualisation of certain values in society, the curriculum framework would need to bring forth their connections to bear upon the selection of content. Two, a teacher who is aware of these connections should be able to make better choices about what route to take for development of such values and abilities.

It is possible to construct a similar dialogue about why the teacher chooses the observation and interview

route to teach children this simple fact of differential treatment between boys and girls? Why does he/she not consider it enough to simply read this ‘fact’ from the textbook? In such a dialogue, the teacher will have to defend the choices by referring to assumptions/principles concerning human learning.

It seems reasonable to draw a conclusion that the principles of content selection, criteria for good methods, material, and evaluation that are formulated for curriculum are based on a large number of assumptions, which one can perhaps call ‘foundational assumptions’ for quick reference. It could be claimed that the more aware the teachers, paper setters for examinations, and textbook writers are of these underlying assumptions, the better equipped they would be to keep the system consistent through suitable curriculum, syllabus, material, evaluation, and classroom practices. Also, the educational decision makers would be better prepared to reflect on their own practices, and therefore, better equipped to generate reliable professional knowledge. The system as a whole in such a situation should be less hesitant to recommend flexibility and better equipped to use the flexibility available. In short, it seems to be a necessary condition for promoting or enhancing the autonomy of the teacher; and a sure step towards sensitive engagement with the child.

The set of foundational assumptions a curriculum framework uses needs to be internally consistent, as clearly articulated as possible, and acceptable to all stakeholders. If there is a workable agreement on a core set of such well-articulated principles/assumptions, it should give a firm ground for informed debate and resolution of disputes about the content, methodology, etc. But the problem is that success in a complete and consistent articulation of all these assumptions always remains limited. One way of doing

a reasonably good job in this area is to carefully examine the nature and connections of these foundational assumptions. A tentative suggestion could be that on the basis of this examination of their nature and connections, the bulk of foundational assumptions can be put into four slightly overlapping groups:

- assumptions concerning human being and society or socio-political assumptions,
- epistemological assumptions,
- assumptions about learning, and
- assumptions concerning the child and its context.

Assumptions Concerning Human Being and Society (Socio-political)

The values that are promoted through education, and that guide all further curricular efforts, themselves spring from the notions of a desirable society and of human beings prevalent among the decision makers. A typical foundational statement in this area could be: *Education should aim at a pluralistic democratic society based on justice, equity and freedom.* Or a closely related social vision could be *autonomous collectives of autonomous human beings connected with each other in mutual appreciation and knowledge.* These are just two examples. A curriculum framework makes many assumptions about what is valuable in human life and how to live together, which could be called politico-ethical in nature.

This group of assumptions is perhaps the most important one and needs clearer consensus of all the concerned people. Also, though it allows for a great range of different articulations depending upon individual preferences, it is the least tolerant to violation of the agreed upon principles. If we want a usable curriculum framework that can be debated meaningfully and that people can identify with, then we need to state our basic assumptions/principles in this area clearly. The aims and objectives are mostly, though not exclusively, derived from or are simply rephrased versions of these assumptions.

Epistemological Assumptions

In education, the only route permissible to realise the values and dreams a society cherishes is the path of learning. If pluralistic society be a desirable goal, the only help education can render is through developing understanding, making information available, and teaching critical appraisal of ideas. Thus, the fulcrum of all educational endeavour is knowledge in its widest sense—including understanding, ways of thinking, values, and skills. An educator has to assume that knowing influences belief and action. If he/she denies this assumption, the very foundation of his/her educational effort would vanish.

The issues of selection of knowledge to teach, their ordering, integrated versus subject-wise curricula, the information versus knowledge versus abilities debate, etc. heavily rely on the epistemological assumptions different participants in these debates make. One very important reason why not much headway is made in resolving educational debates is that the participants never get to the fundamental assumptions made. The curricular content selection and organisation heavily depends on the epistemological assumptions together with the assumptions about learning.

Assumptions about Learning

During the last ten years or so, due to DPEP and several other large-scale programmes, classroom practices and organisation have come into sharper focus. All the positively interpreted loaded expressions like ‘activity-based teaching’, ‘child-centred teaching’, ‘joyful learning’, etc. make use of a host of assumptions about how children learn. Actually, this has been the focus of educational debates in the last decade almost totally bypassing the desirable society and epistemological considerations. A clear articulation of the assumptions about the child and human learning in general should be able to inform the classroom practices better and

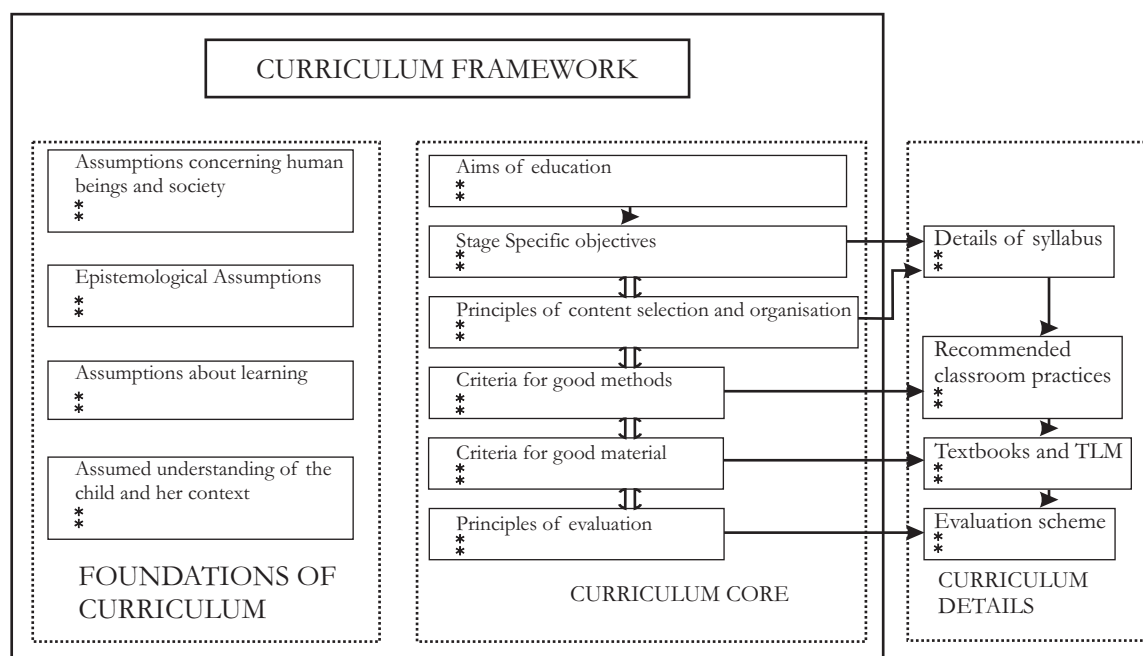
also show the limitations that psychology alone as foundation of curriculum has. Since this is a well-accepted part of curriculum, we need no further arguments to establish the need for articulation of assumptions about learning.

Assumptions Concerning Children and their Context

All curricular material ultimately is for the teacher to be able to meaningfully engage with the child. That makes it necessary to understand how the child sees the world. The child’s worldview, in turn, depends on the life experiences he/she has and the immediate socio-cultural and physical environment he/she lives in. This area involves assumptions regarding the child’s nature (here there is a slight overlap with the assumptions about learning) and his/her social context. The social context has its own influence on the ideas about desirable society and how human beings are understood. Thus, this set of assumptions has another significant overlap with assumptions concerning human beings and society. Its main significance is in bringing the immediate socio-cultural aspect in—in other words, contextualisation of assumptions regarding desirable society and psychology of learning.

If one takes this last discussion into consideration, the graphical representation of curriculum would be as shown on the top on the next page.

Such a structure facilitates understanding of the terms ‘curriculum framework’, ‘curriculum’, ‘syllabus’, textbooks and other teaching learning material, and classroom practices in a connected manner. To an educationist who is used to dealing with such concepts, these simple structures perhaps do not offer much, but to people who are grappling with educational decision making at various levels, it can offer help as a tool to organise different elements of education and see connections between them. It also allows one to



The Graphical Representation of Curriculum Framework

understand the influence of these notions on each other and, therefore, provides a theoretical background for the debate on flexibility in curriculum, multiplicity of textbooks, and decentralisation.

At this stage, it would be useful to recapitulate what has been said and look at various emerging definitions and relationships. It has been assumed that the central problem a curriculum addresses is that of helping the child to progress from her present level of understanding and capabilities to a desired level in areas that are coherent with the aims of education accepted in the child's society. In other words, a curriculum is a planned/pre-figured coordination between the aims of education and the child's capabilities; therefore, it has to have a well-thought-out direction, reliable routes of progress, and ample flexibility to accommodate unpredictable directions taken by the child's progress and interests, and still retain its direction and broadly planned routes.

In discussion of the problems arising out of this enterprise and attempts to find solutions to these

problems, a framework of ideas and concepts has been developed that has three levels of articulation and justification. In the graphical representation of this framework, the left-most block contains assumptions regarding humans, society, knowledge, learning, child, and his/her context. All this put together could be called 'foundations of curriculum'. The middle block, which contains aims of education, curricular objectives, principles of selection and organisation of content, criteria for methods, material and evaluation, could be termed as 'the curriculum'. And, the right-most block contains detailed syllabi, details of methods, textbooks and material, and evaluation system, and could be called 'curricular details'.

Curriculum Framework: It is a plan that interprets educational aims, vis-à-vis both individual and society, to arrive at an understanding of the kinds of learning experiences schools must provide to children. (Paraphrased from a short document circulated in Steering Committee, titled 'Reviewing the Curriculum

2004: Some notes for consideration?.) This plan should include the foundational assumptions and basis of choice for experiences.

Curriculum: As mentioned earlier in this paper, *curriculum is, perhaps, best thought of as that set of planned activities which are designed to implement a particular educational aim—a set of such aims—in terms of the content of what is to be taught and the knowledge, skills, and attitudes that are to be deliberately fostered, together with statements of criteria for selection of content, and choices in methods, materials, and evaluation.* In reference to the framework above, it would mean the ‘curriculum core’ and ‘syllabus’ put together.

Syllabus: It refers to the content of what is to be taught and the knowledge, skills, and attitudes that are to be deliberately fostered, together with stage-specific objectives.

In education of a country, very few things apart from the broad principles like justice, equity, democracy, etc. can be finally decided. Therefore, a terrain map of curriculum framework, curriculum, and syllabus can only highlight the significance of various issues, establish connections between different components, highlight the significance of questions raised, and provide hints at different kinds of answers. In short, a conceptual framework can provide a theoretical tool for investigation and coherent debate only.

The component of the suggested conceptual framework that is called ‘foundations of curriculum’ here is by nature a perpetually contested one. What is a human being? What kind of society do we want? How shall we determine how much progress have we made in the desired direction? What helps or hinders in moving in the desired direction? All these and similar questions admit no final answers. Similarly, there are contesting theories in epistemology and psychology of learning, and various interpretations of contextual differences and understanding of children. Therefore,

the foundational assumptions have to be articulated with great care and sufficient generality to provide space for all legitimate variations. This area is a matter of constant debate, study, and discourse. Stating the assumptions here provides a general direction to the debate and can keep the national discourse coherent and intelligible.

One can afford to be slightly more specific in the middle area, curriculum core, where the general notions of human values, stated assumptions in foundational area (in spite of being contested), Indian Constitution, Human Rights declarations, etc. provide a firmer ground for statement of aims and general concerns. The choice of epistemology and psychology we happen to make allow enunciation of general principles of content selection and methods, etc. Therefore, it becomes possible to articulate certain general principles in this area at the central and state levels, with room for interpretations and additions at the district level.

The third component, curricular details, needs to be worked out in concrete terms and in detail as the name suggests. In this block, the syllabus perhaps can be worked out at the state/district level, with provisions for district and school level reorganisation. The methods, materials and evaluation, in the given parameters, should be the choices made at the school level.

4. GROUP’S ESSENTIAL POSITION

4.1 The Approach

The National Curriculum Framework documents have always advocated flexibility within a framework of principles. Other important concerns expressed in the three curricular documents are national integrity, democratic values, and standards of education. In this context, the National Focus Group (NFG) on Curriculum, Syllabus, and Textbooks recommends a curriculum framework that

- facilitates schools and teachers to make decisions about choice of content, pedagogy, teaching–learning material, evaluation, etc. at the school level; in other words, a national curriculum framework for increased autonomy of the school;
- provides help to the teacher in becoming a reflective practitioner who learns from her own experiences;
- emphasises learning with understanding and learning to learn;
- helps children develop their own understanding based on their day-to-day experiences; and
- can be used as a tool for informed decision making by schools and the teachers, and by school systems including various teacher education and administration structures.

4.2 Position on Elements of Curriculum

4.2.1 The General Aims of Education

I. Aims in Policies and Committees/Commissions/Reports

Almost all policy and curricular documents on education in India contain some form of aims of education. These are nearly always preceded by an account of national concerns and priorities, and the role perceived for education in nation building. Since 1947, the key policy documents on education brought out are by the University Education Commission (UEC) 1948-49, the Secondary Education Commission (SEC) 1952-53, the Education Commission (REC) 1964-66, Ishwarbahai Patel Review Committee (IPRC) 1970, National Policy on Education (NPE) 1986, Review Committee on the National Policy on Education (NPERC) 1990, Learning Without Burden (LWB) 1993; also three curricular frameworks have been prepared in 1975, 1988, and 2000.

Perusal of the sections on aims of education in each of these documents is revealing. For instance, the UEC states:

We must have a conception of the social order for which we are educating our youth...our educational system must find its guiding principle in the aims of the social order for which it prepares, in the nature of the civilization it hopes to build....

The outline of social philosophy which should govern all our institutions, educational as well as economical and political, are indicated in the preamble of our Constitution, 'We the people of India, having resolved to constitute India into a sovereign, democratic Republic and to secure to all its citizens: Justice, social, economic and political; Liberty of thought, expression, belief, faith and worship; Equality of status, opportunity; and to promote among all, Fraternity assuring the dignity of the individual and unity of the nation...We are engaged in a quest for democracy through the realisation of justice, liberty, equality and fraternity.'

Under each of these ideas, the Commission introduces a clusters of aims.

The SEC also bases its rationale for aims on the Preamble (and also indicates that school education policy should have preceded university policy!):

India has recently achieved its political freedom, and has, after careful consideration, decided to transform itself into a secular, democratic republic. This means that the educational system must make its contribution to the development of habits, attitudes and qualities of character, which will enable its citizens to bear worthily the responsibilities of democratic citizenship and to counteract all those fissiparous tendencies which hinder the emergence of a broad, national and secular outlook.... It is clear that we have to formulate our aims with reference to these broad categories—the training of character to fit the students to participate creatively as citizens in the emerging democratic social order, the improvement of their practical and vocational efficiency so that they may play a part in

building up the economic prosperity of the country, and the development of their literary, artistic and cultural interests, which are necessary for the self-expression and for the full development of the human personality.

Both these documents are significant in that they were the first policy documents on university and secondary education after independence. Both recognise the need for renewal and re-organisation in the light of the changed political situation in India. Both these documents, in their own ways, pay great attention to aims of education, their rationale, the sources upon which they are to be based, and the broad categories in which they are to be placed. Perhaps this was due to the socio-political energy prevalent in the country that was evolving its first ever free Constitution, perhaps the memory of the struggles that led to this historic moment was still fresh in the minds of the education policy makers.

The REC of 1964-66, which offered the finest statement on how to achieve equality, the key aim of education, by adopting the common school system, is, paradoxically, also the first policy document to blur the clarity of educational aims. The IPRC dismembers aims from school education, looking at it from an entirely different angle: “Having considered the NCERT Framework and keeping in mind the Constitutional Directive contained in Article 45 which enjoins that ‘the State shall provide free and compulsory education for all children until they complete the age of 14 years’ we feel that the objectives of the compulsory stage of school education must necessarily be distinct from the objectives of education beyond this stage.”

By 1986, the NPE offered more angles to the aims. Invoking the Constitution, it introduces a notion of common core that would include history of freedom

struggle, constitutional obligations, content essential to nurture national identity including value of India’s common cultural heritage, egalitarianism, democracy, secularism, equality of sexes, protection of environment, removal of social barriers, small family norm, scientific temper, and equality of educational opportunity. Apart from listing disparate things in a jumbled way, it is important to note that the thrust on self-development that the first two policies were so conscious of, that got re-defined as a ‘resource’ by 1966, now does not even find mention in the aims. On the one hand, it states that it is committed to equality (for example, women’s equality, vowing to redress “accumulated distortions of the past”); on the other hand, it offers a non-formal centre for the less privileged, where children engaged in child labour can learn (if they are not asleep through exhaustion), a couple of hours *after* labour, some alphabet and numbers in the name of non-formal education. Thus in policy documents and commission reports, there seems to be a gradual de-emphasis on articulation of aims.

II. Aims in the Documents on Curriculum Frameworks

All three national curriculum frameworks want to do much of the work that a carefully formulated statement of aims should be doing through variously articulated concerns. The concerns are certainly important, and might even be of immense help in articulating educational aims in a society, but they cannot be readily used as aims in educational decision making.

Again, all these documents talk of objectives of education (the Curriculum for Ten-year School, 1975, talks of stage-wise general objectives, and not for general objectives of education) and produce a long, somewhat disparate, list to serve for such objectives. The list form of aims though is easier to agree upon⁵

⁵ John White, *New aims for a new national Curriculum, in The National Curriculum Beyond 2000: the QCA and the aims of Education*. Institute of Education, University of London, 1998.

usually ends up being self-contradictory and is found incapable of providing a rationale for further educational decision making⁶. Such lists cannot help pedagogically because the listed principles are not broad enough and do not carry the logical force of an argument. Socio-politically, they fail to reflect aspirations of all people.

III. Need of and Criteria for Good Educational Aims

Socio-political Standpoint: The aims reflect collective aspirations of all sections of the society and help develop capability to define the kind of social life that is seen as desirable, which should hold good for all in a democracy, and pursue it. That implies certain values. The Constitution is an embodiment of those values as they are understood today. Education has a dual job—understanding and respecting those values and Constitution, and also going beyond and developing a critical appreciation of them. Therefore, though the aims have to be in agreement with the Constitution, they cannot solely be justified on the basis of it. Similarly, the international documents like the Declaration of Human Rights and Child Rights Conventions, though rooted in a broad vision of humanity, (1) cannot sufficiently reflect a specific vision of a particular society, (2) are often used as coercive tools to selectively embarrass or inflict punishment by the international agencies and powers, and (3) again need to be critically reflected upon. Therefore, justification of aims of education has to be rooted in the vision of humanity in the society at the particular time of their articulation.

Pedagogical Standpoint: Educational aims are what make varied activities in schools and other educational institutions part of a pattern and distinguishable as ‘educational’ in character. An educational aim helps the teacher connect his present activity to a cherished future

outcome without making it instrumental at present, and, therefore, give direction without divorcing from the present. Dewey puts it very succinctly: “The aim as a foreseen end gives direction to the activity; it is not an idle view of a mere spectator, but influences the steps taken to reach the end. The foresight functions in three ways. In the first place, it involves careful observation of the given conditions to see what are the means available for reaching the end, and to discover the hindrances in the way.” In case of a school this means a careful study of what children at age, say, of 6 years are capable of and what socio-cultural conditions prevail. “In the second place”, Dewey goes on, “it suggests the proper order or sequence in the use of means. It facilitates an economical selection and arrangement.” For schools, that means making decisions on what to teach and in which sequence. “In the third place, it makes choice of alternatives possible. If we can predict the outcome of acting this way or that, we can then compare the value of the two courses of action; we can pass judgment upon their relative desirability.” That would give us the criteria for choice. In this regards Dewey declares, “[T]he net conclusion is that acting with an aim is all one with acting intelligently.” (John Dewey, *Democracy and Education*, Chapter 8, Section 1, “The nature of an aim”)

IV. What We Propose

The articulation of aims needs to serve the two above-mentioned purposes of aligning the whole educational effort to social aspirations and to provide direction to each individual activity in that total educational effort. We have discussed the ground for aims in the section on basic assumptions, and since this document is only to serve as a position paper, here the aims are stated only as principles and no elaborate justifications and/or explanations are provided.

⁶ Robit Dhanekar, *On Curriculum Framework, Seminar*, issue 493, September 2000. New Delhi.

Two-part Articulation

A: Values and ideals education should promote in society, as well as help the learner develop a rational commitment to. They are:

- *Equality*—of status and opportunity
- *Freedom*—thought, expression, belief, faith and worship, and as a value in life
- *Autonomy of mind*—as independence of thinking, based on reason
- *Autonomy of action*—freedom to choose, ability and freedom to decide, and ability and freedom to act
- *Care and respect for others*—going beyond respecting their own freedom and autonomy, concern about well-being and sensitivity to all members of the society
- *Justice*—social, economic, and political

Education should help learners to not only cherish these values for themselves but also to respect equality, freedom, autonomy, etc. of others.

B: Capabilities of individual human beings that are likely to help in development of values and ideals articulated in Section A.

- *Knowledge base*: There should be a sufficiently broad knowledge base encompassing all crucial areas of socio-political life, and all basic ways of investigation and validation of knowledge.
- *Sensitivity to others*: Sensitivity to others' well-being and feelings, coupled with knowledge, should form the basis of rational commitment to values. 'Others' should include all life forms.
- *Rational/critical attitude*: Critical rationality is the only way to autonomy of thought and action.
- *Learning to learn*: The future needs of development of knowledge, reason, sensitivity, and skills cannot be determined in advance. Therefore, ability to learn as new needs arise

in new situations is necessary to function autonomously in a democratic society.

- *Work and ability to participate in economic processes*: Choices in life and ability to participate in the democratic processes depend on ability to contribute to the society in its various functions.
- *Aesthetic appreciation/creation*: Appreciation of beauty and art forms are an integral part of human life.

4.2.2 Stage-wise General Objectives of Education

The stage-wise objectives need to be arrived at by keeping in mind the general aims of education, the developmental stages of children, nature of knowledge in general and curricular subject areas in particular, and the child's socio-political context. They cannot be only in the form of subject-specific knowledge. Objectives here would be more of stage-specific interpretation of the general aims of education and, therefore, have to be articulated in terms of capabilities, values, attitudes, and knowledge base in general. The objectives also have to be specific enough to be used as guidelines for content selection and organisation.

Articulation of curricular objectives should also take cue from the statement of aims and could be written in two parts for each stage. The stages should be defined as:

1. *Primary-I*: 2 years of schooling, roughly 5–7 years of age
2. *Primary-II*: 3–5 years of schooling, roughly 8–11 years of age
3. *Upper Primary*: 6–8 years of schooling, 12–14 years of age
4. *Secondary*: 9–10 years schooling, 15–16 years of age
5. *Higher Secondary*: 11–12 years of schooling, 17–18 years of age

There is no need for year-wise division of objectives; stage-wise achievement of objectives would be enough. The syllabus can be further divided, if need be. Though a stage-wise syllabus would give the school and teachers much more freedom and flexibility.

Part one at each stage should interpret the corresponding part of the general aims, say, democratic values, and what form they would take at the end of primary, upper primary, and so on. Part two should state the levels of learning expected to be reached at that stage. These levels should be attainments expected of the part one of the concerned stage.

Curricular objectives for all but the last stage, i.e., senior higher secondary, can be formulated at the state and district level and each school can reorganise them as per needs of their children and teachers.

4.2.3 Principles of Content Selection and Organisation

One of the constant demands faced in curriculum planning is to create new subjects, add new topics, and include material favoured by various interest groups. This is a healthy trend in a democracy as it expresses public expectations from education and sees curriculum planning as a contested area open for negotiation. But this demand can become problematic in the absence of well-defined criteria for content selection and organisation of content in subject areas, and that is the situation we are facing today. Secondly, the problem of curricular load is substantially the problem of a jumbled heap of information in absence of organising principles and conceptual frameworks for investigation and understanding. Both these problems are debated at present more from the pedagogical point of view (the child cannot learn so much at such and such a stage) and from standards' point of view (if our children do not learn this much, we as a nation will

always remain backward). The third perspective of social relevance surfaces only in the context of some issues.

The social vision and epistemological considerations have a lot of potential for arbitrating in this debate and that potential remains unexplored. The criteria for selection and organisation of content should take into consideration these aspects as well and should be able to suggest solutions to the above-mentioned problems.

School curricula are usually organised in various subjects. The subjects themselves have their basis in traditions and disciplinary knowledge. Though the subject-based organisation of curriculum is largely accepted, this is also criticised for putting knowledge in watertight compartments, and thereby, fragmentising it. This alluded 'fragmentisation' of knowledge is said to be alien to the child's way of looking at the world and, therefore, is unsuitable for developing a proper understanding of the world in which the child lives. Another related problem is concerned with adequate basis for introduction of new subjects or reorganisation of the existing subject areas.

The issues of what should be included in the curriculum and proper sequencing of what is selected for inclusion are constantly debated. Many consider the lack of clarity on criteria for making choices on these issues as the main cause of increasing curricular load. In brief, the issues of basis of subject areas, inclusion of subject areas in curriculum, selection of content in each subject area and its sequencing, integrated curriculum, theme-based teaching, relative weightage given to subject areas in terms of teaching time and marks allocation, and curricular load are all related to the criteria for selection and organisation of the curricular knowledge.

It is suggested here that the problem of selection and organisation of curricular knowledge should be considered from at least four different perspectives; those of *aims of education, epistemological, child's learning and mental development, and the child's context*. A brief consideration of each of these perspectives in turn would be useful here.

Aims of Education

The issue of what students should know is a direct corollary of what education is expected to achieve for them. In other words 'what is worth teaching' is a derivative of 'what aims are worth pursuing' in education; any justification of what is being chosen for teaching will necessarily involve a reference to the aims the choice in question will help achieve. The aims of education, in turn, are guided by the desirable socio-political (socio-political here is meant to include cultural and economic as well) conditions in a society. Aims of education articulate (a) the capabilities and values of individuals that are thought to be necessary for the desirable society, and (b) key principles of the socio-political vision of the society that education is supposed to help realise. Since, generally there is a set of aims rather than a single aim of education, it also implies that the content should be selected to do justice to the entire set of aims. Therefore, comprehensiveness and balance are important factors in curricular choices. From this perspective, curriculum should select experiences that build a knowledge base, capabilities to think rationally, ability to learn, capacity to work and to participate in economic processes, sensitivity to others, and aesthetic appreciation—suitable for the development of a rational commitment to the democratic values of equality, freedom, autonomy of mind, autonomy of action, care and respect for others, and justice.

Articulation of a criteria at this level of generality, however, cannot provide sufficient guidance at a

concrete level. For example, if we take 'development of capability to think rationally', on unpacking, it points to abilities to gather and make sense of information, consideration from as many perspectives as possible, fair amount of proficiency in logical reasoning, ability to spot inconsistency and incoherence, and an attitude to avoid inconsistency. But what specific information, experiences, and principles (knowledge) are likely to help develop these capabilities is still an unanswered question. In order to bring this principle to bear upon the actual task of curriculum development, a host of conceptual tools (information, principles, assumptions) are required. The preceding considerations will provide part of that set of tools.

Epistemological Considerations

The most influential factor in selection and organisation of curricular knowledge is the assumed nature of knowledge itself. Knowledge seen as a bundle of information and a finished product to be 'transferred' to the child's mind immediately demands a set of pedagogically important assumptions. One, it demands postulation of an ultimate store-house of human knowledge (all the disciplines and encyclopaedias put together). The boundaries of disciplines acquire sanctity based on authority of tradition and masters who created the knowledge enshrined in the disciplines. Textbooks become packages of knowledge specially designed to be transferred in specified time periods, one after the other. In absence of any higher order principles, the increased flow of information becomes daunting, as all that has to find place in the child's mind in a limited time. Together with a perfect recipe for mental confusion, attempts to capture all that information becomes a source of burden, and causes scope for developing arguments as to pushing up new fancy subjects on the one hand and rigid adherence to the old disciplines on the other.

Knowledge seen as a finished product to be transferred into the child's mind also encourages conception of the learner as a passive receptor. Further on, it encourages the thinking that knowledge can be acquired without understanding it, and it can be understood without developing the ability to use/apply it. Therefore, knowledge is reduced to grammatically correct use of certain terms and is shorn of understanding, reflection, and use in construction of meaning.

Alternatively, we can conceive of knowledge as experience organised, mainly through language, into patterns of thought (or structures of concepts), thus creating meaning, which in turn helps in understanding the world we live in. Human beings, over time, have evolved both a wealth of knowledge in this sense, and also, a repertoire of ways of thinking and constructing more knowledge. Each new entrant in the field of human thought has to re-create a significant part of this wealth in her own mind. This is important (a) as a basis for further thinking and for acting appropriately in this world, and (b) as examples to learn to participate in the very process of knowledge creation, constructing meaning, and human action. This conception of knowledge allows us to respect the body of knowledge created together with its principles of organisation and creation, and, still, allows significant flexibility to look for alternative and better-suited principles.

The process of acquisition of knowledge becomes the process of active creation by the learner. The textbook becomes a tool to provide examples, pointers, programmes to be perused, and introduction of principles. The increased information flow becomes an object of interest in the light of general principles to accommodate in the existing body of knowledge, and also becomes a challenge to necessitate re-evaluation of principles and reorganise the existing

body to make a better sense of the new information. Therefore, the increased flow of information becomes illuminating rather than daunting. The burden of non-comprehension can be substantially reduced, and informed choices regarding what to include and what not to become possible with this altered conception of knowledge as the basis.

From this perspective, grasp on the ways of creation of knowledge and its validation, organisation, and bringing to bear upon decision making and action become more important in order to achieve aims of education than mastering a vast repertoire of information. It points to a very dynamic engagement with the world through observing, feeling, reflecting, acting, and sharing as a way of knowledge acquisition.

For the curricular purposes, all capabilities that are important to achieve the aims of education can be organised as follows:

1. **Basic capabilities:** These are capabilities that form the basis of all learning and meaningful participation and experiences in social life.
 - a. *Language:* It provides the basis for all human meaning making and, therefore, creates possibilities of development of understanding and knowledge. It provides the ability to symbolise to codify all knowledge, but claims none of it exclusively of its own. Development of language for a child is synonymous with development of understanding, identity, and largely, particularly after the initial stages, capability to relate with others. A substantial part of practical aspect of performing arts and literature is very closely related to the basis of all meaning making.
 - b. *Relationships:* It could be called social development with some justification, but

relating to the natural world and aspects of one's own personality, though might be dependent on social relationships, also have a very special flavour of their own. This is the area of constructing self-identity, relating it with others, emotional richness, sensitivity, and values.

- c. *Capabilities for work and action:* These are more like a cluster of wide range of abilities drawing upon physical skills, values, and understanding. The practical aspect of fine arts should become a significant part of this area.

Forms of understanding

Organisation of knowledge for curricular purposes is extremely important, as we have argued above. Knowledge is creation of human mind. It necessarily involves experience, concept formation, ways of investigation and ways of validation. In other words all this means there has to be some kind of experience base for knowledge. That experience has to be made intelligible and sharable with others through language, which involves use of concepts. If one finds any gaps in the given knowledge base new questions arise. Such questions cannot be answered randomly, to find satisfactory answers one has to investigate, therefore, gradual building of knowledge presupposes ways of investigation. All knowledge claims cannot be considered valid automatically, they have to be tested some how, therefore, one needs some validation procedures. Thus our earlier claim that knowledge formation requires: experience, concept formation, investigation methods, and validation procedures.

If we want children to be rationally autonomous, perhaps it would be necessary for them to have a grasp on the process of knowledge formation as well as an initial knowledge base. So far our education system has

been emphasising only the 'knowledge base' somewhat inadequately understood as 'collection of information'. If we want to emphasise the process of knowledge formation and principles of organisation then perhaps through curriculum we would give as wide an experience to our children as possible. The selection and organisation of curricular content then becomes a very important question for the development of independence of thought and action, and for development of creativity.

A relevant question here would be: can there be a rational criteria for such a selection? Or it always has to be a random somewhat arbitrary choice? To answer this question one has to see if it is possible to organise human knowledge on the basis of the four criteria we have mentioned above, namely: experience, concepts, investigation procedures, and validation procedures. In other words: does mathematics involve the same kinds of experiences, concepts, methods and validation as history does? Are there any fundamental differences in the concepts and validation procedures used in sciences on the one hand and ethics on the other?

The answer seems to be yes, there are fundamental differences. But there could be more than one organisational schemes based on these criteria. What we are proposing is that a curriculum has to presuppose some such scheme or other, without that there shall be no basis for selection and organisation of content. It is a matter of research and serious study to develop such a scheme of organisation, no totally satisfactory scheme is readily available at present, but it is certainly possible to formulate a working hypothesis. We are presenting one such scheme below as an example. This scheme organises human knowledge in to seven basic forms of understanding. What is meant by 'basic' forms of understanding is that each form of understanding mentioned has some speciality of its own in terms of

its concepts, validation procedures and/or investigation methods that can not be completely reduced to other forms. Also, it mean that such differences are significant for development of independence of thought and ways of knowing the world. In addition, it implies that as human understanding stands today, the proposed scheme encompasses, by no means all, but most of it. Therefore it could be used as a tool for curricular decision making, at least till we have a better scheme available to us.

A caution before we present the said scheme: the forms of understanding as explained below are not university disciplines, nor are they school subjects. They

are just the basic ways of looking at the world and organising experience. We shall return to this point again after a brief presentation of the scheme.

This scheme of organisation of knowledge considers seven basic forms of understanding, namely: mathematics, natural sciences, social sciences, history, aesthetic, ethics, and philosophy. It is given in a tabular form for the sake of brevity and clarity. This whole scheme draws heavily on works of P.H. Hirst¹ and R.F. Dearden² but also modifies their basic ideas very significantly. The idea is just to illustrate the point, there is not enough space available here to do justice to the issue.

Forms of understanding³

S.No. Form	Content & concepts	Truth Criteria	Investigation	Certainty/ Precision methodology
1. Mathematics	Highly abstract concepts, clear conceptual relationships	Logical deduction deduction. on the basis of axioms, definitions, accepted theorems.	Step by step logical	Absolute. Very high in precision.
2. Natural Sciences	Natural phenomena, description, explanation,	Mathematical criteria used, but alone remain	Involves hypothesis formulation, logical derivation	Fallibility enters, is a strength of science rather than its weakness.

¹ *Liberal education and the nature of knowledge, in Education and Development of Reason, edited by RF Dearden, PH Hirst and R.S. Peters, Routledge and Kegan Paul, London.*

² *The philosophy of primary education, RF Dearden, Routledge and Kegan Paul, London.*

³ *Robit Dhanekar, An epistemological perspective on school curriculum, Paper presented in the Ninth East-West Philosophers' Conference, Hawaii University, Honolulu, 2005.*

		causal relations. Concepts describe of explain experience, empirically grounded.	inadequate, empirical observation (of nature) is necessary.	of predictions, devising ways of empirical verification of predictions. Revision of hypothesis. Progresses on falsifiability.	Certain enough to act, not enough to forget revision. Highly precise.
3.	Social Sciences	Social phenomena, description, explanation, causal relations yes, but 'reasons' 'rationalisations' of human mind enter. Concepts describe of explain experience, empirically grounded. Human purposes and welfare becomes important, understanding to change the reality.	Methods used in science, 'observation' of human ideals and choice laden actions.	In addition to science, investigation into human 'reasons'. The subject matter can not be treated as 'objects' of enquiry. The very observation may change the reality.	Lot of room for revise-ability, guess, uncertain trends and patterns. Precision appropriate to human world.
4.	History	The past happenings, construction of narrative based on evidence.	Use the methods of social science, but comparative worth, cross-validation in a community of investigators,	Construction of a narrative on the basis of evidence, the 'facts' themselves themselves have to established,	Probable truth at the most. Important thing is coherence of the narrative, and its richness in meaning for present day.

			and procedural norms.	creation of facts is inseparable from building of narrative. Projecting into other remote minds, times.. Interpretation in terms of human purposes, projecting ones ideas into 'construction of others' ideas.	
5.	Ethics	Values (moral), actions, reasons, concepts, relations.	Accepted knowledge, values, human well-being, logic.	Weighing pros and cons, logic.	Difficult to decide. Open choices, contested claims.
6.	Aesthetics	Values (aesthetic), reasons, concepts, relations.	Accepted knowledge, values, human well-being, aesthetic experience, logic.	Creation and not investigation is the issue. Creation has no predefined methods.	More open choices, very difficult to decide.
7.	Philosophy	All the above.	All of the above	All of the above	Depends of the issue under investigation.

This kind of classification can be used to maintain a balance in constructing school subjects and organising learning experiences for the children in the school. Perhaps it will increase the chances of giving adequate importance all ways of making sense of experience. These forms of understanding should not be confused with the university disciplines, though all the disciplines do use the methods of one or more of these forms of understanding.

Child's Mental Development

Selection as well as organisation of content is closely linked to the stage of mental development of the child and pedagogy assumed. Possibility of creating the child's interest, level of abstraction and generalisation that a child can handle, etc. all form important considerations. Creation or re-creation of all knowledge needs an experience base, language abilities, association with other human beings, and interaction with the natural world. At the time when the child enters school, this common base for all knowledge is very well developed, but entirely in an intuitive manner. At the first stage in school, then, there may be a greater need for building on this base in a more conscious and engaged manner. The division into subjects here may not be very important beyond recognising place for language and mathematics in organising activities (even of that distinction the child need not be conscious; it would be enough for the teacher to plan in a conscious manner). The rest of the school experience can be totally integrated, if rich enough in interaction, with the natural and social environment. Understanding, doing and aesthetic appreciation all could easily be made parts of this engagement.

One important point in this connection is that the curriculum and the teachers should be aware of the future development of the forms of knowledge, and the learners' experiences should be organised to develop basis for all areas. The learner neither needs to know

nor could be expected to be aware that the experiences are chosen with forms of knowledge in mind.

At the primary level there may not be enough conceptual basis for any clear demarcation of sciences and social sciences, but it could be possible to introduce ways of looking at the social and natural world in the form of activities, ways of data collection, and making sense out of them.

Upper primary may be the place for emergence of more clearly defined subject areas, taking into consideration the above-mentioned forms of knowledge. Even here, ethical understanding and philosophy (in the general sense of recognising larger patterns across subject areas, precision in understanding concepts, and looking for justifications for accepting/rejecting claims) should run more across the curriculum than being separate subjects. However, a space for dialogical explorations into social issues and knowledge at this stage could go a long way in encouraging rational thinking.

By the time children reach the secondary education stage, they acquire sufficient knowledge base, experience, language abilities, and maturity to engage with forms of knowledge in their full sense: concepts, structure of body of knowledge, investigation methods, and validation procedures. Therefore, the subjects could be more closely linked with the basic forms as listed above and the disciplines as they are recognised in higher education today.

The issues of adequate representation of all forms of knowledge and emphasis on similarities, special characteristics, and widest possible interconnections between them become important when the subject areas are more clearly defined.

The Child's Context

The child's language abilities, knowledge and skill base, and values and attitude all develop in the process of living in his/her natural and social context. Any

possibility of either being interested in or engaging with new ideas and ways of thinking has to be mediated by her existing experience and knowledge base. The curricular objectives in general as well as objectives of different subject areas within the curriculum would certainly admit a great flexibility in choice of what particular concepts, principles, and information should be selected to achieve them. This choice itself has to depend on the concrete examples and experiences that could be made available to the learner. Therefore, the selection of topics within subjects and how they should be taught has to be very much context dependent.

A suggested checklist for selection and organisation of content based on the above discussion:

- Agreement with objectives, and guided by aims
- Agreement with national expectations of learning
- Epistemic priority to understand the nature of the discipline
- Conceptual connections—priority, sequencing
- Investigation methodology and validation procedures—teaching as well as organisation of subject area
- Interconnections between disciplines and relationship to life
- Psychologically appropriate
- Useful in further learning—broadest connections
- Connection with local life and with the rest of the world
- Possible contribution to development of imagination

Criteria should be defined at the national level, structure at the state/ district, and selection of individual items at district/ school/ classroom level.

4.2.4 Teaching-learning Methods and Classroom Practices

Classroom, or any other surrounding where learners are undergoing experiences that help them achieve the desired curricular objectives, is the place where the core of educational activity takes place. As such, the choice of pedagogy is essentially linked with all the aspects that have been discussed so far, i.e., aims of education, curricular objectives, scheme of studies, stage of schooling, knowledge areas, and contents. In addition, it is to be linked to the assumptions about learning based on theoretical and experiential underpinnings, and the social, economic, and age-specific context of the learner. The choice of textbooks and other teaching–learning materials, to be discussed in the following section, is essentially linked to the choice of methods and classroom processes. The basic principles that should guide the choice of classroom practices could be outlined as follows.

Understanding that Children Construct their Own Knowledge

Every individual including children is capable of constructing, and does construct, his/her own knowledge. The responsibility of the school and teachers is to enable this process through appropriate means and processes, and with adequate direction and support. There are several ways of construction of knowledge, and there could be several ways of generalising as well as validating the knowledge constructed. Once children are taken through various processes of knowledge generation and validation, they not only develop an understanding at that point of time or relating to that particular content area, but also the capacity to build their own understanding in various other circumstances and situations.

Importance of Experiences in Learning

Experience has an important place in the process of knowledge construction or understanding of a concept.

Experience is perhaps the most important step in the process of discovery through which individuals can be made to feel, reflect, and arrive at ideas. An understanding of the experiential base of children is also important in the choice of pedagogy. Relating to what they have already experienced helps in the process of reflection. It is a continuous challenge for teachers to look for suitable ways of ‘creating’ and ‘drawing upon’ experiences. New experiences could be organised for children in several ways. It could be through a process of observing something happen (e.g., observing the process of plant germination in a real situation, or observing different stages of milk collection and processing and packaging of different kinds of products in a dairy farm); participating in an exercise involving body and mind (planning a role-play around a theme and presenting that); or going through the mental process of reflecting on something the child has experienced (e.g., dialogue on gender-differentiated practices in the family and society, or participating in a mental game of numbers). Lived experiences, either in the form of exercises that help to relate to life outside the school or in terms of created experiences in the school, have value at all stages of education; only the nature, kind, and complexity of the experiences that the school wants to plan for children need to change over the years.

Active Engagement of Learners is Important for Construction of Knowledge

In order to construct their own knowledge, learners need to be actively engaged. Active engagement refers to engagement of body and mind. A number of physical activities involve engagement of the mind, but some physical activities, especially if those do not require any simultaneous mental application, could also be as un-engaging and mechanical (therefore, mentally passive) as copying something from the notebook or

blackboard is, or as the process of rote-memorization is. The repetitive acts of copying and rote-memorization do not lead to conceptual understanding and analytical capacities. Playing sports is a good example of simultaneous physical and mental engagement, which involves anticipation, reflection, response, and coordination.

Learners can be actively engaged only when they are motivated to learn. The very choice of work needs to be such that it encourages learners to participate and apply themselves. Active engagement involves enquiry, exploration, questioning, debate, application, and reflection leading to theory building and creation of ideas/positions. This implies that it would be important to create opportunities for questioning, enquiry, debate, reflection, and arriving at concepts or creating new ideas. An element of challenge is critical for the process of active engagement and learning various concepts, skills, and positions through the process. What is challenging for a particular age group may become easy and uninteresting for another age group, and may be remote and un-interesting for still another stage. Therefore, challenge has to be understood in the context of capabilities of children at that stage. Creating or drawing upon experience helps in arriving at abstract conceptions for all age groups of children but the nature of experience as well as level of abstractions would vary. Language is the key to organizing experiences and hence a proper coordination between the kind of experience and the level of language developed would be important in early years of schooling.

Learners' Age

Learner's age and cognitive levels are important aspects that influence the choice of methods and processes. The same topic can be taught at several levels through varied processes having different levels of complexities and experiences.

Individual Child's Specificity

Every individual is unique and therefore the way he/she constructs his/her own knowledge is also unique to some extent. Some children might find a particular kind of process challenging and enjoyable while others might not enjoy it as much, and the level of their engagement could vary. Although it is difficult to respond to each child's preferences in everything a teacher does, it would help to have a broad understanding of the patterns of their thinking and response processes. If the teacher remains flexible and involves children in planning her class work, individual unique abilities of children will bring tremendous richness to classroom processes.

The specificity of a child could also be understood in terms of certain other specific requirements. For instance, children with minor hearing or speech limitations would require special attention and some special devices from the teachers' side. The specificity could be in terms of personality. What would help is a realisation that the needs of individuals could vary, and sensitivity towards that is very important in learning. It also implies that teachers need to address diverse needs in the same classroom, and should be prepared for that.

Variety of Situations and Multiplicity of Methods Important for Creating Diverse Experiences

Different kinds of situations provide different kinds of learning experiences to students. Exposure to a variety of learning situations such as self-work, small group work, and whole class (or large group) work helps in widening the experiential base. It also helps in developing diverse perspectives. Therefore, it becomes important to have opportunities for self-learning, peer learning, and learning through interacting with teachers. The experience of working in diverse situations also helps in developing the skills for, and realizing the

necessity of, inter-dependence and cooperation. The experiences of self-learning could help in developing capability for independent action.

Similarly, there could be several ways of enquiry and exploration. If classroom questioning and dialogue could be suitable for something, collecting information through observation followed by processing, analysis, and theory building would be more appropriate for something else. A place for work with hands would also be important in many cases. Similarly, it is also important for learners to be familiar with different forms of expressions, verbal and non-verbal, as well as ideas, and therefore teachers need to create space for opportunities that allow these to happen. It could help to include certain theme-based activities to create opportunities for application of various skills, information, and knowledge to understand different aspects of a topic/concept leading to an understanding and appreciation of the connectedness.

The established principle of 'from known to unknown' is helpful but needs to be interpreted from the learner's perspective. At times, the adult's perspective of 'known' is different from a child or learner's perspective of 'known'. In this context, it would be important to understand that the process of learning is not linear and hence the progression also needs to be non-linear. The relationship between the known and the unknown or between the local and the global is not linear; it is rather complex and web-like in texture. Therefore, a simplistic interpretation can be misleading. The definition of 'known' changes with place, area, age, and needs to be treated accordingly.

Not only the nature of subject or knowledge area and age of the learners but also a number of other objective criteria, including location of the school (rural, urban, remote, and so on) the environment (close to forest, close to water sources, and so on), and the

neighbourhood (mixed social group, exclusive caste group, economic and livelihood bases, and so on) determine the particular choice and the combination of the methods. For instance, rural schools could be more resourceful because of their proximity to a variety of flora and fauna to create certain real-life experiences for understanding the environment. The worldview of learners depends on the kind of place they live in and are exposed to, and teachers would need to be aware of that in order to be able to draw upon them. Again, for instance, the issue of water scarcity is a daily way of life in desert areas and has a different significance as compared to water abundant areas.

Time management is a critical aspect of classroom process. Considering that teachers operate under a form of schooling with structures of grade and periods, they also need to decide about the issue of time allocation. The school system largely follows a rigid system of division of 'periods' usually of about 30–50 minutes duration. The rationale of such decision is not clear as different kinds of activities have different kinds of time requirements depending on their nature and purpose. While certain activities or processes can be easily divided without harming the process of reflection and learning, certain others might require a continuous process. The important factors determining the choice should be the facilitation of the desired learning process and the ability of teachers to manage it in the desired manner. Children's attention span depends on the nature of the process and how it is being managed.

Also important is the issue of classroom organization. Although grade-wise organization is the usual practice, the potential for organizing groups of children of different age and level for certain activities could also be considered. A diverse mix of learners with varied learning experiences and levels helps in enabling a process of peer learning, which is not possible in a homogenous group.

The Implications of Aims for Classrooms Practices

The various aims of education articulated earlier have implications for choices being made for classroom practices. The entire organization of the classroom and learning experiences needs to be such that they promote the same ethos, values, and principles. For instance, the aims of promoting equity, democracy, freedom, and plurality through education have to be reflected in all aspects of pedagogy including the method, the teacher–student relationship, and the kind and nature of learning experiences. Learners need to experience what equity entails, what democracy is, how it functions, and what it means to respect plurality in their classrooms. For instance, to provide a simple example, it would be difficult to promote equity and democracy through a classroom where teachers do not allow children to ask questions, where the teacher does not make extra effort to make a relatively silent child speak and participate, and where varying opinions are not encouraged to be voiced and debated, and so on. In other words, democracy or equality is not taught only by covering these as knowledge areas but have to be made part of the regular classroom process. The same principle would apply to other areas also. Certain specific activities could be chosen to break the existing stereotypes in the society, e.g., encouraging girls to play football or do cycling in those parts where such activities are not common at all. A conscious effort for preparing children for action in real life would also be valuable.

The Socio-economic Context and Identity of the Learner

The socio-economic context of the learner has significance for classroom practices. For instance, the economic background of the learners has implications for their health, nutrition level, and also their physical appearance. This could affect their concentration, energy level, and image based on their physical appearance, and all this has implications for their level

of engagement and sense of belonging to the class. The teacher should be responsible for making the learner feel comfortable and acceptable in the class, which is one of the first requirements for learning to happen. Similarly, religion or caste forms part of the identity and self-image of most, including young children. The sex of a child too is part of the identity. Social as well as gender relations have power connotations and therefore implications for the learner's self-image, expectations from self, peer relations and also the teacher–child relations. The teacher needs to be aware of these and the impact that these factors have on the child's relations and learning, and have devices that would help facilitate a classroom where each child belongs and feels interested in learning.

What is required is an understanding of these issues and practices, and sensitivity in dealing with the various needs of learners. For instance, if girls are usually not forthcoming in taking initiatives on their own, it becomes important for teachers to create more opportunities for them to speak and express themselves. Similarly, if a *dalit* child in an upper-caste concentrated classroom feels marginalised, teachers need to give greater attention to him/her. In certain circumstances, the issues of gender or caste or any other aspect relating to identity or society can be discussed directly, and sensitively, to initiate a process of introspection and reflection.

Considering that many of our schools are now getting a good number of students who are first-generation 'school students' and therefore do not come from a background where the culture of formal schooling exists, it would be important to understand its implications for the pedagogy. Teachers need to be sensitive to the fact that such children are more vulnerable and, therefore, could be irregular or less-attentive for a variety of reasons: the need to help

parents in work, high incidence of illness of self or others at home, and so on. In their early years of schooling, home language could be different from the main language of instruction and has implications for the teaching–learning approach.

Diverse cultural practices should also be looked at as resources. An understanding of these practices would help teachers not only in understanding how to relate to the learners' perspective of the social and physical world around them, but also in building diverse perspectives and in developing a respect for plurality.

An Enabling Teacher–Child Relationship

Even if it means reiterating the obvious, it is important to highlight the criticality of an enabling teacher–child relationship in the process of schooling and learning. The process of learning requires an uninhibited participation and engagement of learners in a process that is largely guided and facilitated by teachers. Teachers' expectations from students has proved to be an important factor in determining their motivation to learn, and consequently the pace and level of learning. However, the conception of a student being 'bright' or 'weak' has a direct association with the learner's motivation, and affects his/her interest level. These notions also often have caste and gender connotations. Teachers need to realize that each individual has the potential to learn and they need to understand how to translate this potential into reality. Therefore, it is important for teachers to develop an affectionate and equal kind of relationship with students, irrespective of their background and specificities.

The Role of and Space for Parents and Community

While school is a structured space for guided learning, the process of constructing knowledge is a continuous one, which goes on even outside the school. Providing some space to community in the classroom processes as part of the curricular plan could help in developing

greater coordination and mutual appreciation. Parents or community members could be seen as resource persons for exposure to certain ideas and concepts and could be requested to share some of their experiences with students. For instance, a potter could share his/her skill, machines, and important aspects of his/her work, while a banker could share his/her knowledge about the process of banking as well as the essential features of banking systems in a particular context. The choice would depend on particular curricular plan and the kind of expertise that is available and accessible. What is needed is active involvement of parents in the process of learning. The relationship would help in sharing the pedagogy and the content and thereby in maintaining the continuity.

The choice of desirable methods and practices depends to a large extent on the teacher–student ratio. The national and international experiences have clearly shown that a ratio higher than 1:30 is not desirable at any stage of school education. The Kothari Commission report had also recommended this ratio way back in 1968. The need for adequate and appropriate teacher training coupled with continuous support and facilitation would also be critical for creating an enabling environment and generating new ideas.

4.2.5 Teaching-learning Material and Textbooks *Textbook-dominated Classroom Practices*

The present day classroom practices are, in almost all schools of the country, totally dominated by textbooks. All premises of flexibility of the curriculum and syllabus and freedom of the teacher are completely forgotten by the time an educational plan reaches the classroom. The teacher is seen as either incompetent or unwilling or both, the school is seen as devoid of all learning material, and the environment is seen as of no use in the child's learning. The textbook emerges as the single

solution to all these problems. It is sought to collect all the knowledge that a child is supposed to acquire at a given stage or class and is planned so that the child never needs to look beyond it. Thus 'teaching the textbook' becomes the whole of education.

As a result of this undue importance given to the textbook, it has acquired an aura of supremacy and a standard format. It has to be completed from cover to cover in a strict sequence, has developed a language of its own that is difficult to comprehend, and is laden with dense concepts. (The recent attempts in certain states to tackle this problem have led to writing rather vacuous textbooks with very little conceptual content to understand.) It has become a symbol of authority difficult to ignore or disobey.

Moving from Textbook to Teaching-learning Material

In this paper, we have been talking of a curriculum framework that enables schools and teacher to make choices and move towards greater autonomy. Such a movement towards school autonomy is seen in a positive light by all major policy and curriculum documents. It has also been well recognised that the choices at the level of school and teacher could be made possible only within an accepted framework of basic principles. We have talked about these principles in connection with the general aims of education (nationally accepted), stage-specific objectives (accepted state and district level in agreement with the national level standards for the final stage of school education), and selection of content (at district and school level, in guidance of, perhaps, a state-level syllabus). When we come to decisions regarding methods of teaching, pace of learning, material, and concrete examples to be used, we reach the level of school and the classroom. These are concrete decisions that can be made only for specific classrooms and children, as the actual learning happens only in the child's mind and depends totally on what

has been learnt earlier. Therefore, the reinterpretation of the content, methods, and materials are completely within the sphere of practical decisions to be made by the teacher.

Clearly, in the light of this argument, what is needed is not a single textbook but a package of teaching–learning material that could be used to engage the child in active learning. At an early stage, it may contain concrete objects that help formation of concepts (i.e., shapes, counting objects, etc.), equipment to help observation, and charts and cards to illustrate, play with, and so on. At a later stage of school education, it could mean a variety of books on the relevant issues. The textbook as part of this package becomes one tool to engage the child in learning. The teacher in classroom practices can use a variety of activities, concrete learning material, as well as textbooks.

What is to be learnt is planned as per the objectives and the syllabus; what is to be evaluated is decided on the basis of stage-specific objectives. There have been several successful initiatives both in state-run school systems and the NGOs where a package of teaching–learning materials is used and the textbook is either not used at all or used only as one of the materials available. Nalli-kali in Karnataka government schools, Mirambika as one experimental school in a city like Delhi, Schools run by the two NGOs, Digantar and Bodh in Rajasthan, and a few experimental schools supported by CARE-India in Hardoi district of Uttar Pradesh are some such examples.

The textbook itself, as part of such a package, will have to change both in form and function. A textbook may not necessarily cover the entire syllabus of one class/stage and it may not necessarily be for the whole year. Any good textbook should lead the child to interact with the environment, peers, other people, etc. rather than be self-contained. It should function as a guide to construct understanding through active engagement with

text, ideas, things, environment, and people rather than ‘transferring knowledge as a finished product’.

Context and the Teaching Learning Material

A package of teaching–learning material that relates with the child cannot be developed only with the child’s context in mind. No single package, however well and professionally designed, can address all the contextual situations in a country as large as India. Therefore, a large number of packages should be developed at state and district levels with adequate provision for cluster and school-level modifications and supplementary materials.

In addition to squarely contextualising the educational processes, the production of TLM package at local levels will also increase avenues for teacher participation at a hitherto unprecedented large scale. This should significantly enhance the quality of local-level educational discourse, and is likely to improve upon the ownership of material and methods by the teachers.

Multiplicity of Teaching Learning Material

Further, there is no reason why each district or block has to have only one TLM package. Availability of a number of alternative TLM packages, all of approved quality, would certainly increase the choice of the teachers. Such packages could be developed and published by private publishers. Each school or teacher should be able to choose the package of her liking, given that she is committed to achieve the required learning levels and all available packages are of proven quality. Freedom to choose methods and materials is likely to enhance the teacher’s self-image and responsibility.

Process of Development of Teaching Learning Materials Including Textbooks

State-run institutions alone cannot develop a large number of TLM packages and involvement of private publishers would become inevitable. If a large number

of TLM packages are to be made available all over the country involving both private and state bodies, it would be important to develop clearly outlined mechanisms of quality control including the establishment of some standards for the very process of development. The government institutions like DIETs should lead the way in developing and establishing such standards. For example, trialling of textbooks and other TLM in a certain number of schools and for a certain time period can be made mandatory for any TLM package that is to be sold in the open market or implemented in a large number of schools. Another such condition could be the participation of practicing teachers in the development process. The DIETs and other government agencies can take lead in fine-tuning and establishing such norms.

4.2.6 Evaluation

Assessment and Evaluation of the Learner in the School

Evaluation, every bit of it—the research, the implementation, the training of evaluators, the evaluation manuals and workshops, the huge buildings full of people devoted to inventing new and even more foul evaluation techniques—in other words, the whole antiquated evaluation process, should as speedily as possible be hurled lock, stock and barrel out of the windows of our educational system in just the same way as the chamber pots were emptied in eighteenth century London, the period and the contents are identical.... Evaluation has been one of the most important forces in the gradual degeneration of all school education over the last thirty years: evaluation with its craze for more and more objectivity in marking, with its endless desire to ensure that children fill their tender minds with numerous snippets of supremely useless information (Who built the Suez Canal? Where is the sun on November 19th? Who was Hare and what do you know about his apparatus?) has reduced

education to a kind of gigantic and crazy quiz programme, where the winners get a free ticket to heaven via the IAS and the second-rankers a ticket to purgatory via the IITs and top executive posts; the others, without ranks, can walk—but neither to heaven nor to purgatory.

— David Horsburgh

The above quote brings out the havoc that the present system of evaluation creates. The learners are thought of, it could be argued, as being clean slates. The teacher imparts knowledge to pupils, leading them from darkness to light. Many of the trained teachers would have been familiar with the views of various education Commissions as a part of their training in Teacher College, but need frequent reminders of the aims and purpose of education. Most of the teachers live in some fear of inspectorial visits and examination performance should their pupils fail to reproduce the correct facts on being examined. Records of inspectors' visits to schools reveal that drill and repetition comprised the main teaching techniques. The repetition of factual content completely dominates other significant learning elements such as demonstrating, observation, articulation, reflection, sharing, and analysis. The fact that this was not considered desirable was brought out clearly in the Yash Pal Committee Report. The report 'Learning Without Burden' notes that the public examinations at the end of classes X and XII should be reviewed with a view to ensure replacement of the prevailing text-based and 'quiz-type' questioning by concept-based questioning. This single reform, it states, is sufficient to improve the quality of learning and save children from the tyranny of rote memorisation.

To this situation is added the view of the ruling classes and the planners, as is seen in the recommendations of the Viswa Bharati Amendment Bill document, which in fact follows the suggestions

of the World Bank that has laid down that for the developing countries, specifically the low-income countries including India, “the development of upper levels of formal education will be selective and carefully planned, taking into account the limited absorptive capacity of the modern sector for labour, and the needs of both the public and private sectors for managerial and technical skills to meet the needs of increasingly sophisticated economies will have priority.”⁷

It is necessary to do some soul-searching as to why there are concerns about ‘falling standards’ and ‘high failure rates’ among our school going children. Is it not a reflection of the failings of the system of curriculum, syllabus, textbooks, and the teaching–learning approaches we now follow? It is to address these concerns that the approach is further discussed.

The Purpose of Assessment

Evaluation is a relative term. In education, it is always associated with objectives and implementation. By itself, it is a process that determines the course of action and recommends changes for the better of the individual, society, nation, and mankind. If we consider education as preparation for a meaningful life, the process of evaluation followed now, which measures and assesses a very limited range of faculties of mind, is highly inadequate and fails to give a true picture of an individual’s abilities or progress towards aims of education.

The first consideration is that there is no need to have a similarity in the evaluation procedures whether in university or primary schools. The evaluation has to be formulated and stated in advance by the teacher and should include all techniques of assessment. Next is that the assessment is a process of collecting, analysing, and interpreting evidence to judge the extent

of students’ learning, not just the quality of students’ achievement, in different domains of learning for the purpose of improving performance and not making a variety of decisions on the levels of learning.

The purpose of assessment is necessarily to improve the teaching–learning process and materials, and be able to review the objectives that have been identified for different stages of school education. Also, assessment is meant to gauge the degree to which objectives are achieved and capabilities of the learners are developed, and not just to know how many snippets of facts have been memorised. A tailor-made uniform test measuring and assessing the memory and even understanding of the mind of the learner is obsolete and outdated. In the modern times, where creativity, innovativeness, and the development of the entire personality are the hallmarks, we need to redefine and search for new ways of evaluation and feedback.

Lastly, the need for assessment is to give a meaningful report for interschool transfer of the learner, certificate of completion of a course, and periodic reports to the guardians, employers, and community about the quality and level of the learners’ progress. It is not a means to encourage competition, and if one is looking for quality attainment then segregating children and injecting a sense of inferiority into them is not the way.

The Assessment of the Learner

In view of generating a meaningful report on quality and level of individual learner’s progress, it is necessary to assess each child’s learning. In addition to the learner’s achievement levels, this should also encompass her attitude, interest, and ability to learn independently. To understand all this, one, of course, has to change the nature of classroom evaluation so that it is based on the very experiences that the learner goes through during

⁷ *Education Sector Policy Paper April 1980, p.87.*

learning. The very process of learning is assessed, and decisions are made on the quality and nature of each learner without comparison, classification, or categorization into slow and fast learners. Competency attained or not attained type of judgments or giving only marks or grades based on single observations are not desirable. Observation, especially self-observation, is a powerful tool where a teacher learns a lot about others. Maintaining a daily diary based on observation helps in continuous and comprehensive evaluation. An extraction from the diary of a teacher for a week mentions, “*Kiran enjoyed his work. He took an instant liking to the books that were informative and brief. He says that he likes simple and clear language. In noting down facts, he goes for short answers. He says that it helps him understand things easily. He favours a practical approach.*”

Similarly, methods of keeping records of the child’s work, a systematic collection of the ways the learning has improved and grown, as seen in the writing, material produced, and ideas articulated should be included in a statement reporting about the child along with the marks if that is felt to be necessary.

The Use and Nature of Examinations

In our view, the purpose of examination must be an evaluation of well-defined and sensible achievement levels at all stages, and not the test of meaningless transient memory.⁸ Revamping the examination method ultimately is the first and most important step of any meaningful educational change. It needs to be clearly realized that examination determines what becomes of any content and method in practical terms. As long as it stresses on simple recall and the exact repetition of the content as stated in the textbook, all innovations will get frustrated by it.

For a subject based on the objectives outlined at the outset, the examination method must mean an

evaluation of not just the achievement levels in the skills and abilities mentioned, but the processes of thinking that the learner uses and whether she knows where the information could be found, how it could be used, and also how to analyse/evaluate and generate information. The best way to do this is the open-book type examination, which emphasises the application of the child’s learning competencies related to thinking and experimenting, involves statistical methods, and is conducted by the teachers themselves. Such an effort has been successfully demonstrated by various small initiatives including the Hoshangabad Science Teaching Project (HSTP). But change in the examination methods is not an easy task, not because of any inherent problems of devising alternate methods, but because of its political implications. It is a great wonder that examination reforms were allowed by the Madhya Pradesh government for the HSTP. The experience in Bombay Municipal schools and the Khiroda experiment shows that both these innovative efforts ultimately floundered because the authorities did not allow examination reforms.

Since examinations are supposed to provide the interface, either with higher education or employment, any change at each stage is linked to what happens at the next stage. As such, a change in the examination method can be effected only if the total educational process is considered as a whole—the IIT entrance examination, the medical entrance examinations, and the PET and PMT examinations of the states are, perhaps, a great stumbling block for any examination reform. A wilful decision by the government to effect a total change in examination is the first and most important step for concerned people to get together to suggest various models for trial, feedback, and final acceptance. It will be necessary to change such entrance

⁸ *Teaching of Science Report and Recommendations of the National Seminar on Science Teaching Held at Bhopal, Nov. 15-17, 1985* *ibid.*

examinations in order to make sensible changes in school-level examination. And until that is done, and a will to do so exists, only cosmetic educational changes shall come through, no matter how many 'new' policies of education are formulated.

Comprehensive Continuous Assessment—its Processes and Implications

The present attempts at Continuous Comprehensive evaluation, in which the percentage of marks is based on tests, project work, and assignments, are left to the teacher. The marks given are added to the year-end examination or the external examination held by the Board at the end of classes 5, 8, 10, and 12. Based on these, at the end of 10 and 12 years, the learner is given certification of completion of studies. In order to make the model of continuous comprehensive evaluation effective, there has to be a collective understanding among all concerned—child, teacher, parent, institutions of higher education and employer—about what is being evaluated.

Some suggestions to improve upon the system:

- Strive for excellence in all aspects of learning, especially in the preparation of materials, correction of work, monitoring students' progress, and responding to enquiries by the learners.
- The role of the assessment is to gauge the progress that the learner and teacher have made towards achieving the aims that have been set and appraising how this could be done better. Opportunity for revision and improvement of performance should constantly be available without exams and evaluation being used as a threat to study. Deduction of marks cannot be an alternative to motivating learners.
- The learning experience itself must be evaluated and not merely its outcomes. Learners are happy to comment on the totality of their experience, and this information can be used to modify the learning system as a whole. The learner must be able to assess her learning experiences both individually and as a part of a group.

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