C H A P T E R   I

INTRODUCTION

Rapid changes in the social and economic
development have been a major characteristic of the post-
war period in all countries in the world. This is true
of advanced as well as developing countries. These
changes in the social and economic areas have resulted
into a world-wide movement for reform and reconstruction
of education at all levels. International agencies and
national governments have been acting together to bring
about the needed educational change. Notwithstanding
these efforts, educational development has lagged behind
the scientific and technological changes. Social and
economic pressures, however, have been responsible for
accelerating the rate of educational change. Some of the
major conditions having a catalytic action in spurring
the process of educational change have been: the
activities of international agencies, specially the
UNESCO, the rivalry between different contending blocks

into which the nations of the world have been divided,
the national aspirations of the developing countries and
lastly the rapid advances in science and technology and
the use of mass media of communication.

UNESCO

As far as the activities of the UNESCO are
concerned, the major problems have been:

    a. to remove the imbalance in educational and
       economic growth found in different nations
       of the world;

    b. to remove illiteracy amongst all the
       nations of the world and specially the
       developing nations;

    c. to support a programme of expanding
       educational facilities in developing
       countries;

    d. to take measures for the reshaping and
       reforming the various dimensions of
       education viz. teachers and their education,
       curriculum and its modernization, text-books
       and their improvement, school buildings and
       school furniture.

The major underlying objective of the activities of
UNESCO is to use education as an instrument to bring
about international understanding and world peace.

Rivalry between power blocks

The two contending blocks and also the appearance
of the active and the passive neutral block into which the
world is divided, have also acted as a lever to bring
about rapid educational changes. The launching of the
first Soviet satellite in 1958 resulted in a rapid change
in the American educational system. The great movement
for the modernization of mathematics and science courses
supported by the National Defence Education Act and the
national agencies like National Aeronautics and Space
Administration (NASA) and National Science Foundation
bear a testimony to the concern seen in an advanced
country like U.S.A. to a need for accelerating the
process of educational change. It was as if people from
every corner of U.S.A., people from every strata of
society suddenly awoke and became conscious of the
weakness of their educational system and began to make
unprecedented efforts to upgrade the same. Fear, rather
than high ideals and lofty aspirations was the major
factor in gearing up the process of educational change.
If this was the position in U.S.A., things were not
different in U.S.S.R. and its allies. The Soviet

education, considered as a powerful instrument to bring
out political and social change since the great Bolshevik
revolution, also began to undergo rapid changes.

National aspirations

The developing countries had their own social
aspirations and perception of their national goals.
Educational change and reform in these countries were in
direct response to these social aspirations. The Asian
and African countries and also the Latin American nations
realized the importance of education as an instrument of
social and economic change and began to develop their own
national systems of education.

Science and technology

The rapid advances in science and technology in
developed countries resulted in what is now known as the
explosion of knowledge. The technological advances and
the increasing use of technology in daily life have put
unavoidable compulsions on the average man on the street
to know more science than what an average science
teacher knew a few decades back. The mass media of
communication viz. the television, radio, newspapers
and magazines dissiminated the new knowledge to the
teeming millions and thereby created an unsatiating
thirst for more and more knowledge.

FACTORS RESPONSIBLE FOR CHANGE

According to Miller (1967) the factors fostering change, specially in American society have been,

(i) the acceptance of the democratic way,

(ii) the acceptance of the principle of equality of opportunity,

(iii) belief in material progress,

(iv) belief in the importance of education.

If these are the factors fostering change in society in a general way, there are certain specific factors also which support the educational change. Again, Miller (1967) identifies these factors as,

(i) the cold war,

(ii) the growing demand for knowledge,

(iii) pressures from agencies outside the realm of professional education, and

(iv) advances in the behavioural sciences.

Social and educational changes have not normally gone hand in hand. The cause and effect relationships between these two have always been debated upon. Does educational change prelude the social change or educational change results from the social change? This debate is linked up with an equally debated question

about the role of education viz. 'education a mirror or an
agent of change'. Philosophers argue the question,
"should education reflect the society or reflect upon the
society?" The issue has remained undecided. There
cannot be a final answer in this case as it is linked up
with the social and political philosophy a nation accepts.
However, one thing is clear that in India as elsewhere in
the world, education has been accepted or is being
gradually accepted as an instrument of social change. The
Education Commission observes:

> If this 'change on a grand scale' is to be
> achieved without violent revolution (and even
> then it would still be necessary) there is
> one instrument, and one instrument only, that
> can be used: EDUCATION. Other agencies may
> help, and can indeed sometimes have a more
> apparent impact. But the national system of
> education is the only instrument that can
> reach all the people. ...it is a sure and
> tried instrument, which has served other
> countries well in their struggle for
> development. It can, given the will and
> the skill, do so for India. (The Report of
> the Education Commission, 1964-'66, p.4)

The factors affecting educational change have
their generality as well as specificity. There are a few
general factors which have influenced educational change
all over the world. Whereas there are certain other
factors influencing educational change which are specific
for each country. Miller's conclusions are more or less
common general factors applicable everywhere. It will be
worthwhile to review the factors influencing educational

change in India in a specific way.

FACTORS RESPONSIBLE FOR EDUCATIONAL CHANGE IN INDIA

The specific factors demanding educational change
in India have been well summarized by Naik (1965) in
'Educational Planning in India'. They are:

(i)   need for accepting democracy as a way of
       life,

(ii)   acceptance of secularism,

(iii) elimination of poverty,

(iv)   adoption of science and technology for
       the modernization of traditional social
       order,

(v)   importance of cultural renaissance,

(vi)   concern for developing and understanding
       about national integration,

(vii) provision of equality of opportunities,

(viii) pursuit of excellence, and

(ix)   socialism.

Naik calls these factors topical objectives which
in fact are responsible for whatever changes Indian
education has undergone during the last two decades. Of
course, one cannot say with confidence that these
factors have always been kept in mind to promote
educational change, but it is true that these factors
have now been accepted as major issues fostering and

spurring educational change. In a country which is of the
size of a sub-continent and where education is a State
subject, educational change is a slow process. But it is
felt in all aspects of education and at all stages of
education. The great movement for the modernization of
school curriculum, the ambitious programme of improving
more than 10,000 text-books in the country, the effective
campaign for changing school examinations, the crash
programme of screening thousands of text-books to
safeguard national integration, the programme of
publishing books to bring about an appreciation of Indian
cultural traditions, the programme of work experience for
linking education with industry, are a few of the examples
of the efforts to bring about educational change based on
and influenced by the factors enumerated above.

STRATEGIES FOR CHANGE

Two major approaches have normally been accepted
to bring about change - social or educational. These
approaches are based upon the location of the sources of
change and the direction in which change moves. In an
organizational structure governed by a bureaucracy,
change starts normally from above but at times it is born
from below also. In other words, the direction of change
is from above to below or vice-versa. Whatever be the
direction of change, both are legitimate and one comes

across both the phenomena in Indian education. No doubt,
in the highly centralised system, major changes are
normally accepted by the top bureaucracy and then
disseminated below. But changes of a minor but significant
nature have also been born at the grass root level.

Four strategies usually found in a change process
on an international plane have also been brought into
action in India too. These are the strategies of:

     (i)   pilot project,

     (ii) cadre training,

     (iii) manipulation of the environment, and

     (iv) controlling and changing the content.

The extension services project for secondary
schools was started as a pilot project in selected
colleges of education. The project aimed at providing
extension services to secondary schools by colleges of
education, organizing programmes of inservice education
for secondary teachers and organizing such activities as
would bring about improvement in secondary schools. This
project is now being institutionalized in practically all
the States. The pilot project of intensive educational
development launched in four districts viz. Jalgaon in
Maharashtra, Bellary in Mysore State, Darbhanga in Bihar
and Sangrur in Punjab, is the most recent example of

adopting the strategy of pilot project to bring about educational change.

A very striking example of the cadre training approach is seen in quite a number of educational change movement in India and specially in the movement for examination reform. A large number of educational workers have been trained, who, in their turn, disseminate and implement or implement and disseminate the programmes of examination reform in their own area or institutions.

The University Grants Commission provided substantial funds for tutorial buildings with small rooms for seminars and discussions. The idea has been to manipulate the environment in such a way as would encourage seminars or small group discussion approach rather than the usual lecture approach. The insistance on subject rooms and specially the science rooms or laboratories for teaching the specific subjects also is based on the assumption that special teaching methods are stimulated in a particular environment.

Lastly, the programme of developing model text-books at the national level and textual materials accompanied by a persuasive and an effective campaign for the nationalization of text-books are the examples of bringing about change through the strategy of controlling the content.

It is thus seen that all available strategies
have been brought into action in one way or the other to
promote and accelerate the process of educational change.
This, however, does not mean that all the strategies have
been effective in all the change programmes. If a
strategy has not been effective, it is partly because of
its intrinsic weakness and partly due to the fact that the
same has not been effectively used.

A number of pilot projects suffered from one
common thing that the projects were planned in such
unrealistic ways that even after their success they could
not be replicated elsewhere. One of the weaknesses has
been the amount of money involved in the pilot project in
the initial stage. After the success of the project, the
same financial resources could not be provided and the
project remained a pilot project confined to a corner,
without being adopted on a large scale. Perhaps this has
been the fate of a large number of projects started as
pilot projects.

In the strategy of cadre training, the weakness
has been in the techniques of training and the lack of
effective follow-up. According to Pareek and Griffin
(1970) a large amount of money is being spent for
organizing a number of training programmes but one does
not find any special efforts made to develop effective
training techniques based on research.

Even though laboratories have been provided, it is not unusual to find a science teacher lecturing about science without practical demonstration in quite a number of schools. This is equally true about the tutorial systems in the universities in India and the use of language laboratories in western countries.

Despite these weaknesses in quite a number of programmes, the selected strategy or a combination of strategies has been effectively used.

INNOVATIVE STRUCTURE FOR EDUCATIONAL CHANGE IN INDIA

The educational change movement in India is characterized not by the use of various strategies only. One special characteristic is the gradual evolution of a broad national structure with its tentacles reaching far and wide in the country. Even though the various constituents of this structure came up not necessarily in a planned way, gradually it has attained a shape which if used properly and intelligently, provides a good promise for accelerating the process of educational change.

Under the Constitution, education is a State subject in India. Though, there has been a continuous discussion about the role of the Central Government vis-a-vis State Governments in the field of education, it is accepted that as far as school education is

concerned, the overall responsibility lies with the States
with the Centre working as the coordinating and the
clearing house agency. This, however, does not mean that
there cannot be any agency at the national level studying
the problems of school education and providing its expert
advice to the State departments of education. During the
first fifteen years after independence, a number of
institutions were established in the country. Some of
them are:

 (i) the Central Institute of Education,

 (ii) the Central Bureau of Educational and
    Vocational Guidance,

 (iii) the Central Bureau of Text-book Research,

 (iv) the National Institute of Basic Education,

 (v) the National Institute of Audio-Visual
    Education,

 (vi) the Directorate of Extension Programmes
    for Secondary Education, and

 (vii) the Central Institute of English, Hyderabad.

In the year 1961, a number of these national
institutes and institutions were brought under a new set
up viz. the National Council for Educational Research and
Training (NCERT). Thus, in 1961 a major institution
concerned with almost all aspects of school education
came into existence as an organization at the apex. This

organization was established with the major objective of
bringing about qualitative improvement in the school
education in the country. Its major functions were
(i) research on crucial problems in the area of school
education, (ii) training of educational personnel and
(iii) extension of new knowledge gained through research.
The establishment of this institution has been hailed as
an epoch making step in the direction of improving
school education. The various national bureaux and
institutes that already existed had their own programmes.
In a very short period the roles of all these bodies were
redefined so as to bring them in line with the major
goals of the national body. The NCERT underwent
periodic reorganizations and during 1968, it had the
following departments in its structure:

NCERT

National Institute of Education (NIE)

Department of Field Services

Department of Philosophical Sociological Foundations of Education

Department of Psychological Foundations

Department of Educational Administration

Department of Curriculum & Evaluation

Department of Teacher Education

Department of Adult Education

Department of Science Education with Central Science Workshop

Department of Audio-Visual Education

Educational Survey Unit

The NIE is the major institute at the national
level started by the NCERT, but the NCERT has other
institutions also in addition to the NIE. They are four
Regional Colleges of Education, the Central Institute of
Education and the Publication Unit. This structure of the
NIE (NCERT) is not rigid. It undergoes periodic changes
based on the administrative and the academic requirements.
Whatever be its internal organization, the NCERT was
established to play a key role in bringing about
qualitative change in the school education in the country.
With this organization having been established at the apex,
the need was felt to build up its counterparts in the
States. In a large number of States, State Bureaux of
Educational and Vocational Guidance were set up after the
establishment of the Central Bureau of Educational and
Vocational Guidance at the Centre. In some States,
audio-visual units existed. In a couple of States, text-
book bureaus were also there. In 1964-'65 with the
assistance from the Government of India, a scheme of
establishing a State Institute of Education (SIE) in every
State and Union Territory corresponding to the National
Institution of Education at the Centre was drawn. Today
in almost all the States and Union Territories, State
Institute of Education have come up. In some States with
the amalgamation of various units, State Councils of
Educational Research and Training (SCERT) have been
established. With the establishment of SIEs/SCERTs, a

structure linking the States with the Centre has developed.

One significant movement in the efforts to improve school education was started in 1955 when it was decided to establish Extension Services Departments in selected colleges of education. In 1955, twentyfour Extension Centres were established. Gradually, the number of Centres increased and the scheme was extended to Primary Teachers Training Institutions also. The NCERT, the SIEs, the Extension Centres together took the shape of an innovative structure which provided a good promise to bring about educational change. The schematic outline of this structure is given on page 18a. This structure has some innovative features which facilitate the flow of information from a central organization to the schools in the country.

a. A communication system has been established which link the Centre with the States and the schools. This system functions through various channels.

(i) The NCERT and its various departments are linked with the schools through the Department of Field Services* and the Extension Centres.

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* The Department of Field Services was abolished in 1969 and its functions decentralized.

(ii) The NCERT and its departments are linked with the schools through the SIEs and the Extension Centres.

(iii) The NCERT is linked with the schools through the agency of State Boards of Education.

(iv) The NCERT is linked with the schools through such agencies as State Institutes of Science Education, State Evaluation Units, State Boards of Text-books, etc.

(v) In some cases, some of the programmes of NCERT are directly taken up with institutions in the country specially in case of pilot projects.

b. There is a provision for feedback from the field to the institution at the apex viz. NCERT through the same or similar channels.
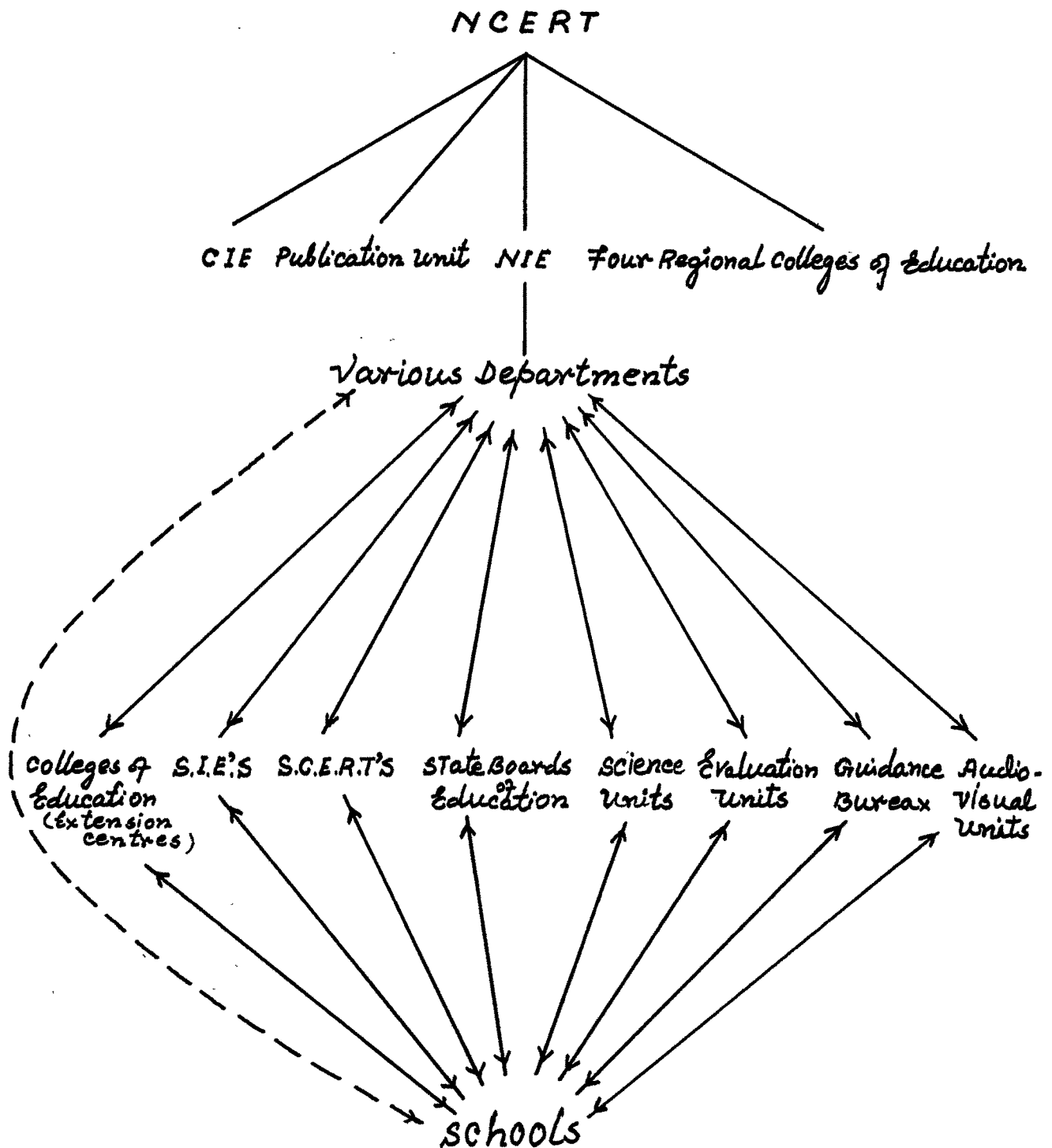
c. Some degree of flexibility usually not found in governmental organizations exists in the structure.

d. Having no administrative control the change process is more through academic conviction and democratic persuasion rather than administrative actions.

e. In this structure the possibility exists for

INNOVATIVE STRUCTURE FOR EDUCATIONAL CHANGE
—A SCHEMATIC OUTLINE

NCERT

CIE   Publication unit   NIE   Four Regional Colleges of Education

Various Departments

Colleges of Education (extension centres)   S.I.E.'s   S.C.E.R.T's   State Boards of Education   Science Units   Evaluation Units   Guidance Bureax   Audio-Visual Units

schools

a teacher in the classroom to establish contacts even
directly with the organization at the apex (NCERT).

The most important thing is the recognition of
the role of the school to bring about educational change.
Even though the above structure took shape rather slowly
the recognition of the role of the school to bring about
educational change goes back to the years in the early
fifties, when the All India Council for Secondary Education
was established and activities/directly affecting the school
programmes were sponsored by that body. In the year 1966,
the Education Commission (1964-'66) reiterated the role
of the school and the classroom when it declared, "The
destiny of India is now being shaped in her classrooms".
This naturally places the school in a key position to
bring about educational change.

SCHOOL AND THE EDUCATIONAL CHANGE

The role of the school in a process of educational
change is easy to define in words but incredibly difficult
to play. In a process of change, educational and social,
on a nationwide scale, the role of the school is to
provide a programme in harmony with the national goals
and aspirations. Whether there are two thousand schools
or twenty thousand in a country, the school remains the
key to educational progress. However much it may be
assisted by the State Department of Education or

stimulated by colleges of education, the individual school must have intrinsic energy, interest and initiative if it is to change for the better. No major educational change programme can succeed or will succeed unless the schools change. No school will change on a permanent and sustained basis unless there is an inbuilt change mechanism and a change climate in the school organization and functioning. This role of school in a process of educational change has been realized all over the world. The National Educational Association of U.S.A. undertook the 'Project on Instruction' during the early sixties resulting in four major reports, viz:

   (i) Schools for the sixties,

   (ii) Deciding what to teach,

   (iii) Education in a changing society,

   (iv) Planning and organizing for teaching.

This project underlines the role of the school in the process of educational change.

In India, with its philosophy of unity in diversity, it is the school that has been called upon to help the future citizens to imbibe the cultural traditions of the various regional and linguistic groups on the one hand and to develop a unifying picture of what would be considered a national culture on the other. It is again

in Indian society characterized more by diversity than
unity that the schools are called upon to help establish
basis for unity and provide opportunities for the
development of individuality.

The question which has been posed for the Indian
schools by educational thinkers on one hand and by the
schools themselves on the other is, "what shall the
schools teach?" There is a general agreement that the
school has a major responsibility for preparing the youth
to live in the society as it exists and the society as it
will be in the next few decades. It is also agreed that
the school has a responsibility of preparing the youth to
live in an environment of continuous change and to equip
him adequately to initiate and sponsor change. This has
naturally led to the question of the school curriculum.
The challenge before the school and the country today, is
to prepare a balanced curriculum and select the content
that will take into consideration the national traditions,
the national goals and aspirations. A great movement for
curriculum reconstruction has been gaining on. Every
conference, every seminar talks about the need for
updating the syllabus. The national curriculum project was
launched and a first draft of the national curriculum
prepared. A major project for updating the syllabi in
sciences and mathematics has been going on during the

last decade. The first attempt to develop a syllabus in
general science was made by All India Council for
Secondary Education in 1956. The syllabus was further
revised in 1961-'62 and with the help of expertise drawn
from all over the country, the nationalized text-books in
general science were prepared for the State of Punjab in
the year 1962. With the help of UNESCO, a project to
develop new programmes in physical sciences and mathematics
was taken up by the NCERT and the new materials developed
under this project were accepted by a large number of
schools in Delhi as well as the Central schools. The NCERT
established a number of study groups in Indian universities
to develop new materials in sciences and mathematics which
are now available for use in Indian schools. The new
programmes in Physics, Chemistry, Biological Sciences and
Mathematics developed in U.S.A. were made available to
Indian teachers and a large number of teachers oriented
into these programmes in hundreds of summer institutes.
The movement for curriculum change was not confined to
borrowing materials from abroad. Indigeneous programmes
in the area of the national language, social studies, etc.
were developed. The materials developed under these
programmes, have been accepted with minor modifications
in some States, but what is more important is their
influence on the syllabi and text-books developed in
various States. That the curriculum is in constant need

of evaluation, to make sure that it is geared to current
topical objectives has been generally accepted and a
machinery for a continuous evaluation and revision of
curriculum is set up in a number of States. The process
of educational change in India through changing the schools
is also marked by a programme of research,experimentation
and supported innovations in Indian schools. A large
number of schools have participated in educational
experiments over the last fifteen years and the programme
goes on. In every State one finds quite a few schools
which may be termed 'experimental schools', with a few
enthusiastic and interested teachers, headmasters and
principals working on projects which they have selected
and designed. This movement of experimentation by schools
has spread far and wide and a large number of schools are
engaged in experiments without the financial or any other
type of support from the agency that originated this
movement and even at times without its knowledge.

The concept of bringing about change in school
got crystallized in 1963 when the NCERT started the
programme of intensive school improvement and for the first
time the school began to be considered as a system and the
need for studying the process of change in the school was
realized. The principal of the school is in a leadership
position to initiate, stimulate and coordinate the change.
In every State, conferences of headmasters involved in the

programme of school improvement were organized and
gradually a more systematic method of bringing about
change developed. Today it is not difficult to find a
number of schools involved in the process of planning
changes of long term or short term duration in every
State. The recommendation of the Education Commission
(1964-'66) regarding institutional planning has given
further impetus to a process of planned change in Indian
schools.

MAJOR ISSUE

The issue today is to study the factors which
promote change, the conditions which are conducive to
change and the role of various agencies, like the district
education officer, the school principal, the school
teachers, the community, etc. in making schools prone to
change. The movement of educational change cannot be
separated from that of bringing about changes in schools,
their internal administration, the instructional programmes,
teaching methods, teachers' professional growth, etc. This
issue is being studied everywhere and has to be studied
in India too. The area of investigation in the present
inquiry is the change process in secondary schools. The
problem is concerned with studying factors promoting
change in secondary schools. The specific problem along
with the variables suspected to influence the process of
change in schools are discussed in Chapter III.