

CHAPTER : I

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I N T R O D U C T I O N

A:1 **CHALLENGES FACING MODERN SOCIETY :**

One of the characteristic features of the second half of the twentieth century is the rate of change. Social changes, scientific advances and technological developments are taking place at a tremendous rate in the modern society. Ways of thinking, patterns of feelings and techniques of doing are undergoing an extraordinary transformation. Today is so different from yesterday and tomorrow may not be like today. The future may be very different from the past ~~past~~ and the present. The near-explosion in communication technology and systems of modern transportation have made the world small. Traditional cultures within national boundaries are thrown open to the influences of an emerging modern world culture. Besides national loyalties, the trend is to develop a world order based on liberty equality, and fraternity among all people. Technology has been changing the contour of the world of modern man's productive work. Newer technology brings in its train, new work-processes, in the field of industry, new skills and new outlooks on the part of the work-force. In the eighties of the twentieth century, the most typical feature is change-tremendous change-virtually in all aspects of the modern society.

Besides the rate of change is incredible.

In this context of a changing society, every individual has to be prepared to meet this change, cope with this change and if possible make his own contribution to it. The individual can no longer confine himself to his own work, culture and country. He needs to develop a wide range of awareness of the changing world of work beyond his own, the international culture of his region and the emerging modern world culture and the affairs of other countries in the world. The individual should have knowledge of a wide range of things and events. He should have skills to utilise the several sources of information now available inclusive of mass media and needs to keep himself abreast with the recent developments in many spheres of human interest and endeavour. He should cultivate an open-minded approach to every person, phenomenon and problem. The individual as a member of this modern evolving society has to cultivate a readiness to cope with change and anticipate change. It is no longer sufficient for him to understand the past. It is not even enough for him to understand the present; for the here and now environment will soon vanish. He must learn to anticipate the directions and the rate of change. He should keep his eyes on the future (Toffler : 1970).

In the context of a changing and technological society, the new challenges are to prepare the individuals and the society to free them from the old ways of the past and equip them to face the present and anticipate the future. In this accelerating society, every member needs to make continuous readjustments to the changing environment. A capacity for

continuous adjustments has to be developed on the part of the individual as part of his cope-ability to the changing environment. Every member of such a society needs education and training for preparing for undertaking productive work. But then one cannot be educated and trained for just a job for a life time because no one may be required to do the same set of jobs for the full length of a life-time. One may have to change his jobs several times in a life-time. Besides the work-techniques may not remain the same even within a given job for more than a few years. The tremendous technological development may be expected to make many work-processes obsolete and new processes will periodically replace the old ones. Hence, systematic continuing education and training may be required for the working population at all levels.

Another challenge facing the individual and society in the eighties and the years to come is the prospect of an ever-increasing leisure in an era where the material aspects of life have come to dominate. In the absence of proper anticipation and preparation for such leisure, it may degenerate to mere idle and sensuous pursuits. In this society, every child, youth, adult and aged person may need whole-some and cultured leisure time interests, hobbies and occupations. In this context of growing leisure for all age-groups, the life style of people will be expected to change over a period of time. This again requires adequate preparation. Therefore, education will not only be for preparing one for work, but also for healthy enjoyment of leisure.

As the world shrinks, in the context of mutual interdependence of countries and regions besides the advances in

transportation, information and communication, people living in small closed cultures may have to pierce through these traditional cultures and mix with the broad stream of the emergent world culture. This requirement of this era, that everyone has to rise above his own cultural barriers to breathe the fresh air of world culture may constitute yet another challenge. One's Language, culture and country have tended to impose certain constraints in one's way of thinking, feeling and behaving. This era calls for certain universalistic ways of thinking, feeling and behaving on the part of people living in different parts of the world.

Modern society faces yet another challenge. The affluence that is so characteristic of this age is paradoxically not uniformly shared by people of different countries in the world. Further even within a country, the material wealth of a country is not yet equitably shared among people of different states or provinces. This inequality and inequity in sharing the material prosperity of this period among the people may at any time lead to an explosive situation. In the interest of human civilisation and culture, the modern man needs to cultivate a Co-operating outlook to share the products of increased productivity with his fellow-men even as he is engaged in competing with others in his effort to enhance the rate of productivity.

The greatest challenge facing the modern post-war society is the threat to peace. Peace is the first pre-condition for any growth and development. If this modern post-war society has to survive and develop its civilisation

and culture, it should be protected from the threat of war, at any cost. But then where are these protective walls from the threat of war? The best protection for peace in the world at large can be provided, only when the right outlook is constructed on the part of everyone of the individuals in the globe. The love and regard for human life, liberty, equality and brotherhood needs to be cultivated in the minds of everyone. World understanding of these human values have to be built up through a process of conditioning, education and inter-dependent living.

A:2 THE EDUCATIONAL SYSTEM :

What is the role of the educational system in preparing the members of this modern society against the afore-mentioned challenges? The Educational system can be used as an instrument in preparing the people of all the age-groups against these challenges. Through a well designed system of education, these goals, namely preparing the individual and the society to cope with change, developing sense of direction and anticipating future, preparing for vocation and providing continuing education and training, preparing for leisure and exercising leisure-time in wholesome pursuits, cultivating certain modern universalisa - spirit of competition in producing material wealth^l~~th~~ and cooperation in sharing the output of such efforts and cherishing to preserve world peace, human life, liberty, equality and fraternity may be achieved. The task before the educational system is to prepare every citizen for this future.

What is the response of the educational system in meeting

this challenging task? In this task, the old ways of education may not be useful. The educational system should conceive of fresh approach to meet this challenge. In 1972, the International Commission on the Development of Education established by UNESCO observed - "For the first time in history, education is now engaged in preparing men for a type of society which does not yet exist." Hence, a big institutional change in the educational system itself may be necessary so that through education, that will be life-long, a new society may be fashioned. Institutional change in education has roused much public discussion, because almost every member in society is concerned with the way education proceeds. Several new theories, policies, experiments and innovations are being attempted by educators and others interested in education. No other institution in our society is subjected to such a barrage of forces, planned and unplanned (Sieber, 1972). There is a plethora of educational changes as a result. Since educational changes are tremendous and educational goals are so markedly different from the past, it may be said, that education has reached the take-off stage.

The recent trends in education suggest, that modern Governments in different countries of the world wish to provide universal education for all their people. The old elitist model of education has been rejected significantly. Even the newly liberated countries in 'the third world' plan to provide for wide educational opportunities to their people. It may be said that the right to education is recognised as a fundamental right of the individual and to provide such education has become obligatory to the modern governments. If one observes

the history of educational development in the developed countries of the world, it will be seen, that education began to expand and develop only after certain level of economic development had been accomplished. Today one witnesses a situation, wherein educational development is tending to precede economic development on a world-wide scale (Learning To Be, 1972).

"Equality of educational Opportunity" has acquired tremendous significance in recent years. At one time, it was thought, equality of educational opportunity meant equal access to education for all, other things remaining the same. But other things were not found the same. Another approach to equality of education was to provide the same education for all. But soon this was found unsuitable. Robin Pedley (1969) defined equality of educational opportunity as "in fact entirely opposite to the notion of sameness and uniformity, of turning out all children to one pattern. It is rather the concept of equal work, that is, all equally deserving and needing such aids to personal growth, as we can give". This concern for equality was responsible for generating the Coleman Report, 1969 in the United States of America and subsequently the launching of the 'head-start programme'. In Great Britain, following the suggestion of the Plowden Report, 1967 'Educational Priority Areas Programme' was launched on a big scale on the model of action-research programme. In a developing country, like India, several governmental measures have been taken for providing education to the backward, disadvantaged and weaker sections of the people. These developments indicate that the

concept of equality is getting a more liberal definition in recent times. Equality of educational opportunity does not mean equal access to education to people of equal worth; it also does not mean that all people should be provided the same uniform education; perhaps it tends to mean that equality should be viewed in terms of output independent of student-input. For example, if two students with different backgrounds go to the same school, come out with the same level of achievement, then, it is considered that the school provides equality of educational opportunity (Eapen, 1976).

It was found that as the formal system of full-time education went on expanding, more and yet more could join and take advantage of it. But then it was also identified, that certain sections of people and certain age-group of people could not enter the formal system, since it had assumed certain rigidity in the requirement of age at entry, time of attendance and examination requirements etc. Non formal education, it is felt, can meet the requirements of this section of people. Non-formal education is defined as, "the organised provision of learning opportunities outside of the formal education system, covering a person's life-time and programmed to meet a specific need remedial or vocational or health, or welfare or civic, political or self fulfilment. (Adiseshiah, 1970)

Non-formal education is meant, among other things, to reach certain target-populations such as school-drop-outs, young farmers, rural adults and urban slum-dwellers normally not covered by the formal education system.

Another significant development in recent years is the

concept of 'Life-long integrated education'. "The objective of this enterprise is not to provide for an unfocussed search for knowledge as in the ancient concept of knowledge for knowledge's sake-but to structure the efforts of all concerned in a manner that the knowledge gained is relevant to the aspirations of the seeker and is integrated with his requirements for social, economic and cultural progress and well-being". (Guruge, 1970)

The need to improve one's self and his own field of specialisation calls for an upward movement spreading over to his entire active life and this is 'vertical integration'. The need to be abreast of such disciplines to the degree of being able to take an intelligent interest in other peoples work and to follow developments in social, political and cultural spheres calls for horizontal integration in life long education. The concept that education is a preparation for life is yielding its place to the concept that education is co-terminus with life.

In response to community-needs, more provision is being made for part-time education through evening colleges, and own-time education through correspondence education. The philosophy of correspondence education is (i) education is not a once for all process, but is a life-long process; (ii) no one is too old, too shy, too big, or too small to learn at any moment and (iii) one's inability to be^a regular and residential student of a college or university is no bar to learning.

The effort to provide education to those in most inaccessible places and who cannot afford to join an Evening College due to some constraint or other is symbolised in the form of the Open University. The Open university at Milton

Keynes is a bold experiment in mass higher education. The university is intended for all adults without specifying any entry qualifications. The University provides for three programmes of study-under-graduate, post-graduate and post-experience courses. The highest degree that is offered in the post-graduate programme is Ph.D. There is no campus in the ~~sense~~, it is understood usually. The University adopts multi-media distance teaching methods. It has a network of 13 regional offices with Regional Directors who take care of 260 study centres, providing contact to the students with ~~tut~~tors. There are 4,400 ~~part~~-time tutors and 1,700 part-time Counsellors. The course Components include (i) printed material in the form of correspondence texts, set books, recommended reading, (ii) course radio broadcasts (iii) course T V broadcasts (iv) Tuition and counselling in individual and group setting inclusive of Summer Schools and (v) Assignments and assessments.

The modern society is committed to support education. This may be evidenced by the fact that public expenditure on education has been increasing in all countries both in absolute amount and in proportion to other items of public expenditure. Next to national defence, the item demanding highest proportion of expenditure is education in developed as well as developing countries. Most countries spend more on public education rather than even health services. Besides public expenditure on education, the support of the community for the educational system has been steadily increasing in other directions as well. Parents and the public are increasingly participating in the management of the school. Parent Teacher Associations wield considerable

influence in the affairs of the school. A large section of parents and the public show jealous interest in the optimal utilisation of the resources housed in schools and colleges and motivated as they are they tend to run these institutions in two or three shifts besides using these premises for community centres and clubs during the off-hours. Parents had not hesitated to join student-demand for greater relevance in the educational curriculum of the day. Similarly parents have not been found wanting in extending support to several teacher-agitations both in developed and developing countries. The community has always come forward, on the other hand, in identifying and recognising both talented students and outstanding teachers.

Another significant area of development has been the curriculum. The curriculum is designed based on well-formulated objectives of education. The curricular objectives may be cognitive, affective and psycho-motor and such objectives need to be well-balanced among these three domains of human behaviour. The curricular objectives should be formulated explicitly and they should find a place in any course book or course Guide so that all concerned will be oriented to the course goals. ~~The~~ curriculum should offer a wide variety of subjects with sufficient freedom for the student to choose his subjects from among them. In an average British Comprehensive School, nearly sixty subjects are available. There should be alternative ways of doing a curriculum. For example, some would like to learn Mathematics for purely practical purposes and for them the instructional process is suitably tailored. Some would like to learn Modern

Mathematics, hoping to do further studies and for them the instruction is appropriately orientated. The curriculum should be related to the world of work and society at large. Lot of applied subjects have been introduced in the curriculum with ample scope for student-practice. In a good curriculum, the student should remain a dynamic participant in the educative process and there should be adequate occasions for him to handle the materials in the laboratory, and workshops of his institution. Besides placement in relevant work-spots in the farm and the industry will bring him adequate work-experience. Several curricular innovations and reforms are being attempted today all over the world. All these innovations aim at making the curriculum objectives-oriented and they intend to develop adequate behaviour-potential on the part of the students. All these developments relating to the curriculum are intended to make the curriculum more and more relevant to the student-population and the evolving society.

"Mastery learning" is an interesting concept and approach to learning developed in recent years. In mastery learning, it is envisaged that the learner will be capable of cent percent mastery of a learning unit, provided the time required for mastery is kept elastic. At any rate most learners can easily reach 90-95% mastery. This concept is founded on the principle, that any one may be capable of learning a given unit of learning, irrespective of his entry behaviour. But the time taken for such mastery will vary from individual to individual because they all do not have the same starting points in their learning and their rates of learning may also vary very much. In traditional education, the time

for a unit or course of learning is kept inelastic and the standards of mastery attained by the students is kept very elastic. In some cases 40% mastery is accepted as the minimum standard of pass. In the hierarchically arranged structure of learning units, if 40% is accepted progressively at all stages then at the final stage of completion of that course of learning, there will be a very low level of mastery. Therefore such an education system is error-prone. (Bloom, 1976). The right approach to learning will be to keep the acceptable level of mastery somewhere between 95% and 100% for every structured and hierarchically arranged learning unit, while permitting the time taken for such mastery to be elastic. Organisation of courses should be based on such a mastery approach.

"Mastery learning" can be achieved in actual practice by suitable reorganisation of courses and by improving quality of instruction. There are several instructional techniques such as Resources based method of teaching and learning, Activity-based method of teaching and learning, Programmed Learning and Discovery learning that may be utilised. Bloom's Formative and Summative Evaluation, when built into course design and organisation can facilitate the attainment of mastery learning. If instruction can be strictly objectives-oriented, and every unit of learning is tested then and there with the assistance of Unit tests and every learner gets the feedback on his unit-performance, there is every probability of attaining mastery learning. A careful monitoring of performance of learners in the early units will help to build an error-free foundation stage for more advanced learning to develop.

Educational Technology has brought about a breakthrough in education in recent times. The hardware in educational technology is extremely serviceable and its upkeep is inexpensive when compared to the teachers' capacity for workload and the cost of keeping them in good health and functional fitness. The soft-ware associated with the educational technology is very sensitive and powerful and makes a big impact compared to the capacity of any teacher to communicate competently. This comparison does not suggest replacing teachers with educational technological gadgets. But changing the ratio of educational technological input and teacher-input is certainly suggested at the instructional level. A proper mix of human and technological inputs in education may help to accelerate the pace of learning on the part of the learner.

Recent Developments in Educational administration suggest that in the developed countries of the world, systematic efforts at educational planning and management are put in. There is a very deliberate approach towards man-power planning and investment on education at different levels. Periodic surveys and data gathering research have come to stay as pre requisites for development-oriented educational management. Management by definition, demands directing other people's energies towards institutional goals, at the same time it gives the feeling to every member in the organisation that he matters in the organisation (Guruge 1970). It is a type of participatory management that is proving popular as revealed by recent

trends. Decision-making process in educational organisation should involve and also appear to involve people at all stages.

The Recent Developments in Education in many parts of the world described so far may be summarised at the conceptual level as follows:

- (i) Education has become an individual's fundamental right and entitlement.
- (ii) Education of all people has become obligatory on the part of modern governments.
- (iii) Equality of educational opportunity is seriously exercising the minds of educational philosophers and educational policy-makers and the concept is tending to be interpreted in more and more liberal and humanistic way.
- (iv) Non-formal education is emerging as a supplement to formal education in a bid to take education to certain target-population, so far not touched by the formal system.
- (v) "Education as a preparation for adult life" as a concept is being replaced by life-long Integrated Education.
- (vi) Educational system is in sympathetic resonance with the pressing requirements of modern society and this is evidenced by its readiness to alter its structure and mode of operation in a bid to be more serviceable to the community. Reciprocally the concern shown by the community in educational affairs is something tremendous.

- (vii) Curricular reform, innovation and experimentation have become a characteristic feature of the changing educational scene. There are new curricular goals, new curricular content, new ways of treating instruction and new ways of measuring the curricular outcomes. Wider choice for the student and alternative ways of treating his approach to learning have become a reality in some school systems.
- (viii) Educational technology has brought the long expected breakthrough in education. A different mix of technological and human inputs are suggested at the instructional level.
- (ix) 'Mastery learning' holds the prospect of an error-free learning or educational situation, with its built-in provision for formative and summative evaluation in the context of 6 criterion-referenced evaluation.
- (x) Modern management approaches have emerged in education and hence the prospect of the educational service becoming a more satisfying service than it had been in the past, because of the spirit of participation in decision-making that has developed on the part of teachers.

A:3 RECENT DEVELOPMENTS IN INDIAN EDUCATION :

A:3:1 Introduction :

The above-mentioned Recent Developments in Education surveyed in the context of the larger world have influenced the Indian educational scene too. India is a large country with diverse educational conditions in many of its constituent states and union territories. Similar developments as mentioned earlier have taken place here at two levels; some developments have taken place at the conceptual level and operational level too, while

certain developments have remained purely at the conceptual level and have not yet taken place in an application shape for reasons such as dearth of funds, want of the required infrastructure, want of the required personnel, and lack of dynamism in the administrative machinery.

In India the Central Schools run by Kendriya Vidyalaya Sangathan all over the country seem to implement many progressive educational practices. The Technical Teachers' Training Institutes in the Country provide very modern teacher-education programmes for technical teachers especially those working in the Polytechnics. Technical education institutions generally and Indian Institutes of Technology in the country especially have several innovative features in their system of education. Some of the young universities in the country have taken up many experimental schemes to try out new ideas in education. In some of the Advanced Centres of these Universities, research work comparable in terms of world standards is progressing. In certain states in the country, reform in educational administration has been attempted and educational planning and management principles are being followed. State Governments and local governments and many non-governmental agencies have come forward for educational changes and innovations. At the same time, one may come across many overcrowded school class-rooms, student-activism, teacher-agitations, mass malpractice in public examinations and parental apathy towards education in some places in the country. It is obvious that a country of this size will have diverse conditions. Yet the direction for educational change is clear and there is a overwhelming consensus that these Recent Developments in Education in the context of larger world are relevant to India.

"During the last few years, there have been new developments in structure, curriculum, and methods of education at various levels. Several experiments and innovative projects have been tried out in different parts of our country to meet some of our social need and educational challenge. The innovations which have been tried out vary in scope from place to place. Some of them are initiated to meet certain national needs of developments, others are of limited significance. There are top-down innovations as well as innovations from the base. There are others which are called out-in innovations". (Rais Ahmed, 1976).

These Recent Developments in Education are related to (i) State Policy and Approach to Education; (ii) Developments relating to teachers (iii) Psychological aspects, (iv) Methodology of Teaching and Learning (v) the curriculum (vi) Educational Evaluation (vii) Non-formal education (viii) Community-response to Education (ix) Educational Planning (x) Educational Management and (xi) Educational Agencies.

A:3:2 State Policy and Approach to Education :

Since India's Independence, several developments have taken place in its socio-politico-economic structures, necessitating planned and unplanned changes in the educational system of the country. The right of the individual for education has been recognised by the Republican Indian constitution and this has been made an obligation of the central, state and local Governments by incorporating this in the constitution under the Directive Principles of State Policy. According to the constitution,

education was a subject largely in the state list with certain items in the central list and certain other items in the concurrent list. In this set up, the major responsibility for education rested with the various state governments. The Central Government was expected to take care of items in the Central List. The powers were shared by the Central and State Governments with regard to items in the Concurrent List. However, in practice, over the years, it was found that education was not developing in a cohesive way in the country, since the major initiative rested with the different State Governments and the Central Government lacked adequate constitutional power to coordinate this diverse development. This led to the adoption of the constitutional amendment in 1976, by which education as a subject has been placed in the Concurrent List. With this constitutional step, it is expected that Indian educational development will develop Cohesion in due course.

As a sovereign democratic and secular Republic, India has adopted an official policy of providing secular education to her people amidst, rich diversity of religious faith. Secular education means non-religious education with a spirit of tolerance and appreciation of religions other than one's own. The rights of the religious, linguistic and other categories of minorities for a type of education suiting their special requirements has been guaranteed with a view to promoting national integration.

The government of India has appointed from time to time several commissions and committees to study educational problems at the all India level and offer suitable recommendations for

improvement. Notable in this regard have been university Education Commission (1948-49), Secondary Education Commission (1952-53) and Education Commission (1964-66). In 1968 and more recently in 1979 National Policy on Education has been declared.

Since 1951, a systematic effort towards planned development has been attempted in the country, with the launching of the Five year Plan. The first three five year Plans promoted considerable educational expansion. The fourth Plan highlighted qualitative improvement of education. The adoption of national structure and pattern in the form of 10+2+3 years of education has been receiving much attention in many states of the country over these recent years, since its recommendation by the Education Commission in 1966.

With a view to providing for free and compulsory education for all upto 14 years of age, educational expenditure by local governments, State Governments and Government of India has been steadily increasing.

Modern Societies should not only provide for education for all citizens, they should take special efforts to identify and nurture talent. India, as a developing country, has chalked out certain programmes for developing national talent through the National council for Educational Research and Training (NCERT). Under the Rural Talent Scheme, talented children are selected all over the country at standard VIII for being provided with resident and non-resident scholarship for pursuing their studies. Under the National Talent Search Scheme, brilliant pupils are identified at the end of Standard X and they are provided with education upto the doctorate level to serve both the discipline and the country.

Under the earlier National Science Talent Search Scheme, brilliant students at the end of Standard XI were selected based on Aptitude Test and Performance in the interview and these students were provided with scholarships tenable upto doctorate level for studying the basic sciences. Such schemes may promote the development of talent in the country in the long run.

A:3:3 Developments relating to Teachers:

The University Education Commission (1948-49) observed:

"It is extraordinary that our school teachers learn all of whatever subject they teach before reaching the age of 24 or 25 and then all their further education is left to "experience", which in most cases is another name for stagnation. We must realise that experience needs to be supplemented by experiment before reaching its fullness and that a teacher to keep alive and fresh should become a learner from time to time. Constant 'outpouring' needs constant intaking; practice must be reinforced by theory and the old must be constantly tested by the new."

That is how the need for teacher development and inservice teacher education has been emphasised by the commission in 1949 in India. Teachers can never be furnished products. They need continuous growth and hence they need continuing education in the form of in-service teacher-education. Such in-service education is not intended to be confined to the young teachers, who have just entered the profession. It should cover all the teachers. Its chief purpose is periodic up-dating of teachers both in their content subjects as well as professional subjects.

Institutions such as the NCERT, State Council of Educational Research and Training (SEERT) and State Institutes of Education (SIE) are providing regular in-service education to school teachers. The NCERT has been organising annually Summer Institutes to Secondary School teachers in such school subjects as Physical Sciences, Biological Sciences and Mathematics with the collaboration of the University Grants Commission (UGC). Besides, the NCERT has been conducting annually the National Programme of Seminar Readings for teachers and teacher educators. The programme has been designed to promote innovative practices, critical study of educational problems, experimentation and to promote discussion of these items in professional ~~circle~~ of educators and teacher-educators. The best papers selected in this national competition are published by the NCERT and the authors of such papers are awarded cash ~~prizes~~ of Rs.500/- besides being invited to participate in the National Seminar on these papers at New Delhi.

The NCERT through its Educational Research and Innovations Committee (ERIC) has been providing financial assistance to teachers who undertake approved experimental and developmental projects with a view to building a suitable climate for action research by teachers. Since action research is focussed on the immediate application, it can bring about the involvement of teachers and the School Principals. The progress of action research combines improvement of local school practices together with teacher-growth.

In recent years, several techniques are being perfected for evaluating teaching and such evaluation appears to be

becoming more acceptable to teachers. Teaching may be subjected to evaluation by (i) a Committee of fellow-teachers; (ii) School Principal ; (iii) Student-groups or ; (iv) Outside experts. Self-evaluation is invariably the first step in this direction. Evaluation by one's colleagues or by the Principal is ~~often~~ easily acceptable to teachers. Sometimes teachers seek voluntarily evaluation of teaching by students for the sake of getting feedback.

School Supervision has been changing visibly in recent years. The object of supervision is no more mere evaluation; it is guidance towards better performance. From the generalist administrator Supervision, the shift is towards subject, specialist supervision. Surprise inspections are becoming less popular. Inspection is now pre-planned and there are elements of participation of school-teachers and head teachers in supervision in some regions. For example, in Tamil Nadu, an innovative scheme of 'Panel Inspection of Schools by Headmasters' has been introduced recently. Under this scheme, senior headmasters and headmistresses in each educational district are utilised to serve on these Panels. The District Educational Officer of the Inspectorate is hence relieved of certain academic responsibilities in this regard, which he had been doing perfunctorily before.

In recent years, teachers tend to seek more and more professional autonomy and they wish to control their immediate tasks and the core activity of teaching both individually and collectively. Teacher organisations tend to think of several professional matters, such as conducting conferences,

workshops, journals and News Letters besides taking a share in the design of new curriculum and preparation of testing, learning materials, and evaluation systems.

Teachers, as a professional group tend to feel that they themselves can plan to provide for their own professional development. Recently in Tamil Nadu, Teacher-Centres have been started with the assistance of the SCERT and the British Council at Madras. These centres are modelled after the Teachers' Centres of Britain. Some of the characteristic features of these centres are:

- (i) they are part of a strategy of career-long teacher education and provide in-service education to teachers.
- (ii) they function as Local Curriculum Development Centres providing rich resources and facilities.
- (iii) they have exhibitions/museums and
- (iv) ~~some~~ as social centres for teachers. The development of Teachers' Centres indicates that the traditional authority Centred Concept of in-service training may be supplemented by Teachers' Centres taking up the job of updating their professional knowledge and skill.

As Teachers tend to discharge more and more professionally competent duties, they may be relieved ~~of~~ some of their routine functions. Teacher aides can take over routine responsibilities such as monitoring a class of pupils from the point of view of maintaining discipline, Correction of written work done by pupils, overseeing pupils engaged in doing projects etc. In the united States of America teacher-aides are appointed as ~~such~~. In the United Kingdom, there are

parent volunteers doing the function of teacher aides. Recently in Tamil Nadu in India, in a scheme, Corps of Graduate Volunteers have been recruited for social service and they are paid small monthly allowances. Among them, the B.Ed. degree-holders are utilised as Teacher aides in schools, especially in rural areas.

A:3:4 Psychological Aspects :

The influence of psychology on education has led to the adoption of certain educational practices such as programmes for promoting achievement-motivation, guidance and counselling, class room climate and flexible grouping of pupils. It is felt that more attention has to be given to the individual learner with a view to offer clientle-oriented educational service. The learner's motivation plays a significant role in his learning. In recent years, it is recognised that the achievement motivation of pupils could be developed by specially designed programmes (Lakshmi, 1976). It may be necessary that such programmes are developed for building the achievement motivation of the school children, especially the first generation learners among them.

The importance of Guidance and counselling has been emphasised by the Secondary Education Commission (1952-53) and in pursuance to its recommendation psychologists and career masters have been appointed in many Multi-purpose schools. However, the expansion and development of guidance and counselling services has been rather slow in the country. Personal, educational and vocational guidance can play a significant role in the developing national pattern of 10 + 2 + 3 years of education.

In recent years, the operations of the class-room have come under closer scrutiny at the hands of researchers and educators. Class room climate that promotes more direct involvement of pupils as individual learner and as a learning group is being recommended by experimenters and researchers in education. Among the several class-room interaction analysis systems available, Ned Flanders' Interaction Analysis Category System has come to be used in many doctoral investigations. Teacher-education programmes in many parts of our country tend to include class-room interactional training in the scheme of teaching practice for the student-teachers.

Flexible grouping of pupils has certain distinct advantages over grouping practices based on the Age or Standard of the pupils. Under flexible grouping, the children can interact vertically as well as horizontally with other children of different age groups in the school. School children in India are organised for co-curricular work especially on the basis of flexible grouping.

A:3:5 Methodology of Teaching and Learning :

In recent years, methods of teaching are getting modernised in the Indian situation. Many progressive institutions are adopting and experimenting with many modern techniques of teaching and learning. Discussions, Seminars, Brain Storming sessions, Buzz Sessions and Panel discussions-all these methods focussing their attention ^{on} the learner-group, are being adopted in a widening scale. Similarly methods focussing their attention on the individual learner for example,

Independent study, Discovery Learning, Simulation, Educational games, and Programmed learning are being adopted. Resources based method of teaching and learning and Activity based method of teaching and learning also keep the learner activity involved in the learning process. Several schools use the Radio, the T V and overhead Projector. Videotape recording facilities have become available in many Polytechnics and Engineering Colleges in the Country. The closed circuit television was installed for the first time in the Indian educational scene at the Technical Teachers' Training Institute (TTTI), Madras in 1970-71 under the Colombo Plan Assistance Programme. Subsequently other TTTI's and Madras University Education Department have acquired these technological facilities for conducting experiments and researches in teacher-education. Many educational institutions, particularly large Engineering Colleges, Indian Institutes of Technology and Universities have acquired their own computer systems for purposes of training their students and to assist their research projects. Mini-computers have also arrived on the Indian scene and they will be of tremendous assistance in data-processing for research.

A:3:6 The Curriculum :

The modern principles of curriculum construction are broadly treated as the principle of (i) Child-centeredness; (ii) need-centeredness, (iii) interest centeredness; (iv) activity-centeredness; (v) life-centeredness; (vi) objective-centeredness; (vii) research-basedness; (viii) goal-directedness (ix) integratedness; (x) broad-basedness (xi) adaptability and (xii) flexibility.

With the evolution of a fairly uniform national structure and pattern of education based on 10 + 2 + 3 model in many parts of the country, several ideas evolved by the Education commission (1964-66) as well as the NCERT are getting accepted in the curriculum. Work Experience has been accepted in the school curriculum recently. Participation of pupils in productive work either in school, home, workshop, farm, factory or any other productive situation is viewed as work experience. The programme serves the purposes of (i) exposing students to various fields of work in order to explore their own aptitudes so that they will later make right choice of vocation; (ii) engaging them in production-process to make them self-supporting in living and productive in functioning; (iii) Orientating their minds for scientific and technological outlook and (iv) encouraging their participation in creative activities, having economic or aesthetic significance. The work experience areas are (i) Science and Technology; (ii) Agriculture; (iii) Handicrafts and cottage Industries, (iv) Fine Arts; (v) House-hold activities and (vi) Commerce and Trade.

Vocationalisation has been introduced in the +2 stage of education. Barring a small percentage of students going for higher education of a professional, technical or general nature, most students like to pursue an education that will prepare them for vocations sooner or later. The earlier wave of fascination for general higher education has considerably subsided and the vocational streams of higher secondary education are becoming popular. The most commonly offered vocational subject-fields at the 'plus two stage' are

(i) Engineering and Technology (ii) Banking, Commerce and Business Management (iii) Secretarial course (iv) Home Science and (v) Health. It is expected that the +2 courses will reduce unemployment of youth, promote self-employment and young people will be gainfully occupied in their own native areas or their neighbourhoods.

The aim of this feature of diversification in the higher secondary education is "to avoid forcing students into the academic channel alone and to offer them opportunities to choose subjects and programmes of study in a much wider field of education in keeping with their aptitudes, interests and abilities, with a view to increasing their employability which would, in turn provide society with personnel having a wide spectrum of knowledge and training for its own needs and upliftment. It also aims at the reduction and elimination of frustration among the youth resulting from non-productive and aimless education offered at present", observes the NCERT in 'Higher Secondary Education and its Vocationalisation in 1976. The major thrust of the new pattern is to break the barrier between the world of learning and the world of work and to bring one as close to the other as possible.

Science education has been gaining strength in the country. In 1967, the Ministry of Education signed an agreement with the UNESCO-UNICEF to launch a project on science Teaching at the School stage. Under this programme, schools are provided with newly developed science kits. Science teaching can be strengthened by providing upgraded syllabus, a job in which the NCERT has been engaged and in making available science

equipment, towards which UNICEF assistance has been utilised. The scheme includes developing instructional material and text-books, training teacher-educators and science teachers besides supplying science equipment.

In recent years, Nutrition Education is getting a better place in the curriculum. Since malnutrition is a serious problem in developing countries like India, the inclusion of Nutrition Education in the primary and middle school curriculum is bound to produce results. Invariably Nutrition Education is integrated with science learning. Similarly Population Education has come to be considered seriously. The current discussion on the subject in the country is on questions such as : (i) Should Population Education be provided as separate subject or should it be integrated with the teaching of other school subjects? (ii) At what stage should Population Education be provided in the school curriculum primary, middle or secondary? (iii) Should Population Education be handled by a special category of trained teachers or can the present teachers handle the same, when once they get some orientation? There is a vigorous drive in the country to promote Population Education for the ultimate purpose of population control. Several official and voluntary agencies are engaged in this task.

The Government of India formulated a National Plan for Physical Education in 1956 for the first time and it was said in the Plan "Physical education should aim at making the child physically, mentally and emotionally fit and developing his personal and social qualities which will help him to live

happily with others and build him into a good citizen." The development of total personality, and achievement of worthy citizenship motivated for service should be the aim of physical education. Earlier Physical Education had not received its due place in the school curriculum. More and more, in recent years, physical Education has been gaining in importance in the school curriculum.

In Tamil Nadu, in 1975 an officially sponsored innovation was introduced with respect to Physical Education in the school curriculum. The State Department of School Education of Tamil Nadu introduced a scheme of compulsory Physical and Health Education for all school children. In this scheme, Physical and Health education has to be imparted to the children during school hours within the framework of the school time table and performance of children in Physical and Health education is assessed as the children's performance in other curricular subjects are assessed. All the schools in the State of Tamil Nadu were classified into three categories:

- (i) having high facilities for Physical and Health Education in the form of play-ground, play materials etc.
- (ii) having adequate/average facilities and
- (iii) having low/poor facilities.

The syllabus was so framed that all the three categories of schools can organise effective programmes of Physical and Health education.

The study of languages in the school curriculum still poses a problem in India. In Russia, with more languages, the problem was solved easily, the way in which they went about it.

The Central Advisory Board of Education, the top most policy, framing body in India gave the "Three Language Formula" to solve this problem. This was intended to help one learn his (i) mother-tongue, (ii) the national language and (iii) English, an international language. Those whose mothertongue happened to be the national language are expected to learn one other regional language, so that they also have the uniform load of learning three languages. Unfortunately this has not been implemented in many States, though lip-sympathy is expressed for the language formula. Tamil Nadu State stands with an official policy of two languages in the school curriculum. Schools affiliated to the Central Board of Secondary Education are following the three language formula in action.

A:3:7 Educational Evaluation :

There are several interesting developments in Indian Education relating to its examination and evaluation systems. Objective type tests are becoming more popular. The advantages of objective tests are (i) questions are specific; (ii) Problems are posed precisely; (iii) Content-coverage is better; (iv) marking can be rapid, accurate and impersonal. Essay questions, during the initial wave of examination reform, were assailed as subjective. However, essay questions seem to have a permanent place in evaluation for they are capable of testing uniquely certain abilities for example 'organisation', which the objective type tests cannot. Essay questions originally used to be less structured, and therefore gave scope for wide student response which made marking subjective and inconsistent. Structuring and openness of student-response are inverse proportionally related. Therefore, the trend of the move is

towards structuring essay questions and retaining them in the evaluation system.

Unit tests are coming into wider adoption in the Indian situation. Subjects are organised as consisting of 15-25 units and the students are administered the unit tests at the end of each unit. The NCERT and several State Evaluation units have organised workshops for teacher-examiners and lot of unit Tests in different school subjects have been produced for adoption in schools.

The course-end written examinations are still popular as external examinations in the country. However, certain steps are being undertaken to improve them. Some of these steps are : (1) the abolition of over-all options in the examination question paper; (ii) more efficient content-coverage; (iii) increasing the proportion of short answer questions; (iv) writing out perfect answers as guide for examiners at the time of valuation of answer-scripts; and (v) assigning dummy numbers to all the answer-scripts in the place of names or register number of students. Since the external written examinations lead to many malpractices in India, including large-scale cheating and sporadic violence, open-book examinations have been tried in Model Institute of Education and Research, Jammu, (Gupta, 1975). It is said, that open-book examination question papers can be constructed in any format, and this type of examinations lay less emphasis on memory and the usual examination fear and emotional blockings may be reduced.

As part of modern evaluation, continuous and

progressive assessment with a fair proportion of Internal Assessment has been recommended and this is now being practised in many parts of India, both in school education and university education sectors. Many State Boards of Secondary Education have insisted on the system of Cumulative Records in the schools. Many universities have allocated a weightage ranging from 20 to 60% of marks for internal assessment. The Central principles involved are that (i) teachers are the best persons to examine and only such an examination can be valid; (ii) Student-progress during instruction has to be periodically tested and students need to be given feedback at short intervals and (iii) such an evaluation will be conducive for sound teaching and learning.

Frequent assessment demands the easy availability of questions in different subjects, at different levels for testing different learning-outcomes. All effective teachers may not be good question paper setters. Question/item Banking is the answer to this problem. Though the concept is quite old, the university Grants Commission, Examination Reform-A plan of Action, May 1973, brought to it a distinct sense of urgency. The Association of Indian Universities under the leadership of Amrit Singh has published volumes of Question Bank questions in many university level subjects. Some Indian Universities have set up Examination Reform Units and most of them are also engaged in Question Bank Projects. At the school level, the NCERT the State councils of Educational Research & Training and the state Education Units have been engaged in this task.

The problem of improving the objectivity in the valuation answer-scripts has been tackled in many ways. The

preparation of a Marking Scheme for marking structured essay and short answer questions and the provision of a Scoring key for the objective-type of test items help examiners to move towards greater uniformity in marking. Central Valuation of Examination answer-scripts is another step. Several State Governments are conducting Central Valuation of answer-scripts of Secondary School Leaving Certificate Examinations and some universities are adopting this practice with reference to certain under-graduate examinations. Central Valuation helps to attain uniformity in standards of evaluation of answer-scripts. Besides valuation will be fair and reliable.

Another major reform is Compartmentalisation of examination. Previously the old practice was if a student failed to obtain required minimum marks in a subject, he was declared a total failure. He should re-do all the examinations. Under compartmentalisation, he needs to repeat only the examination in which he failed to secure the minimum. Besides there is the added advantage, that reappearing for an examination is permissible for improving one's marks or grades as the case may be. This is being widely practised in India in recent years.

Course Evaluation technique has come to be practised in many institutions. Course evaluation may be done by those who have participated in a course as students or as staff or by both the groups. Course evaluation is done with reference to course objectives, course content, the process of instruction and the utilisation of physical and human resources. Course evaluation provides feedback to the system

and the various sub-systems and helps to redesign and revise the course periodically. It can improve the efficiency and effectiveness of the system.

There is a statistical dimension to examination reform. Certain Statistical techniques are now-a-days used for bringing larger objectivity into the system of evaluation. Some examination boards collect all the answer-scripts from all the examination centres and later through a process of using randomisation, they recollect the answer-scripts and then send to examiners such randomised collection of answer-scripts. In this situation, every examiner is likely to get a cross-section of performance and all examiners are likely to get fairly comparable bundles of scripts. Under such circumstances, all examiners can use the same scale of valuation and inter-examiner variation in marking may be reduced.

Since different subjects have different effective scales of valuation and the Mean performance and standard deviation vary from subject to subject, it is often difficult to compare the performance of a candidate in different subjects, and the practice of merely adding marks obtained in different subjects by a student to represent his total marks is also misleading. Hence, the modern trend is to use standard scores. The most frequently used standard scores are Z Score, T Score and stanines. Standard scores indicate a students' relative position in a group in terms of standard deviation units above or below the Mean of the group.

Another statistical technique adopted is the scaling technique. The marks awarded to the students need to be scaled to a common standard whenever such a standard is lacking. It is lacking, when the examination answer-books of students are marked by different examiners. It is lacking when a student's marks in one subject are added to his marks in another subject to arrive at an aggregate mark. It is lacking, when marks derived from Internal assessment are combined with marks on University examinations. The Scaling method suggested by Dandekar is the most suitable scaling method (Singh 1975).

A:3:8 Non-formal Education :

India is taking keen interest in the development of non-formal education and in this the Government of India, various State Governments and several voluntary organisations in the country at different levels are one for promoting it. The NCERT conducted a project for the drop-out children of 6-14 in Bhumidhar, W.Pand brought out a report, 'Non-formal Education for Drop-out children and Rural Development' in 1977. Naik (1975) has suggested a programme for out of school youth in the age-group 15-25 in Policy and Performance in Indian Education (1947-74).

In Tamil Nadu, a survey on Non-formal education was carried out and its 1975 report is known as 'Towards a Functional Learning Society'. Tamil Nadu is one of the states that has developed non-formal education in a brief period. It has 748 Non-formal Education centres. In Tamil Nadu non-formal education is developing a formal infra-structure because there is a Directorate of Non-formal Education in the Government Department of Education, one of its universities, namely

Madras University has a Department of Adult and continuing Education. There is a Doordharsan (TV) Centre at Madras, broadcasting non-formal education programmes regularly, there is a Board of Continuing Education and all the University and College students in Tamil Nadu contribute to rural development through their participation in National Social Service (NSS) and community and Social Service (CSS) programmes.

A great part of India is rural and it is said India lives in her villages and hence education should reach her villages. The Government of India has been organising Farmers' Functional Literacy Programmes. In this programme, an attempt is made to link literacy training with the adoption of progressive agricultural practices. In each Functional Literacy Centre, 30 adults are trained for one year duration, in two phases of six months each.

The Education Commission (1964-66) has recommended the provision of part-time and own-time education in the form of Evening-colleges and Correspondence Education as widely as possible including Science and Technology. The Commission had observed that such education would reduce capital costs of education and in the long run even recurring costs of education. The Commission expressed the view that the qualitative standards of education might actually be expected to improve owing to the high motivation of these students. The Commission suggested that by 1976, at least one-third of enrolment in higher education should be provided with own-time and part-time education. Consequently there has been phenomenal expansion in part-time and own-time education in the country.

With a view to taking higher education to the door of the motivated and to make higher education available at a mass-scale, universities such as the Madurai Kamaraj University have launched an Open University experiment. The Open University of Madurai offers an integrated five-year B.A./B.Sc. degree course for learners aged 25 without specified entry qualifications. The course is offered at four levels. The course components include correspondence texts, prescribed readings, tutor-marked assignments and radio broadcasts and contact at study-centres.

A:3:9 Community-response :

The Community and the parents of school children and university students are evincing more interest in education and are coming forward to support educational improvements and educational institutions. The Parent Teachers' Associations are functioning, by and large all over the country. To encourage children to get enrolled in schools and to retain children already enrolled in the schools, the Mid-day Meal Programme and the offer of free school uniforms have been promoted by State Governments and in the Mid-day Meal Programme, generous foreign aid and assistance has been received from organisations such as UNICEF and CARE.

School Improvement Projects with the generous financial support of the community, that started in Tamil Nadu in 1958 have spread all over the country. During the period of National Emergency in the country, under the Twenty Point Development Programme, the Book Bank Scheme came as an official innovation in augmenting the availability of learning materials

in schools and colleges. Book Banks came to be started in schools and colleges to meet the book-requirement of very economically deprived students. The UGC gives special grants towards this to colleges. In the school sector, well to do students have given away their used books to Book Banks so that books may get into further cycles of use by poor sections of students.

A:3:10 Educational Planning :

Educational Planning as part of planned development in the country commenced in 1951 with the birth of the National Planning commission. The first four Five year Plans covered the periods : 1951-56, 1956-61, 1961-66, and 1969-74. There were three annual plans during 1966-69. In these plans, both Five Year Plans and Annual Plans, the main emphasis was on :

- (i) reorientation of the educational system to country's needs, and integration of its different stages,
- (ii) expansion virtually in all fields and notably in primary education;
- (iii) qualitative improvement of many sectors, and orientating higher education to suit country's man-power requirements.
- (iv) equalisation of educational opportunities particularly to improve the lot of disadvantaged sections of the population and
- (v) training of teachers and provision of better scales of pay to teachers and other welfare measures.

In the process of planned development of the country, the following four approaches are available : (i) Social Demand Approach; (ii) Man-Power Planning; (iii) Investment

Efficiency Approach and (iv) Institutional Planning. In India's Five Year Plans, during the first three plan-period, Social Demand Approach and Man-power Planning dominated, though these two approaches appear to be opposed to each other. Government of India on one side appointed a Man Power Research Institute at the all-India level in 1962, and yet the country's education expanded virtually on popular demand. That is how there are too many Arts colleges in India. Only later it was realised such unplanned expansion of higher education might not suit country's development and subsequently the Education Commissions (1964-66) Report pointed out this. In the Fourth Plan, effort was taken towards providing higher secondary education on a planned basis. It was expected that production of unemployable graduates of the Arts Colleges would be controlled and higher Secondary education would make many employable.

During the Sixties and Seventies, it was found that some school-age children had not enrolled and many tended to drop out of education even before they could complete higher primary education. These who had not enrolled during school-age could not enrol later, even if they sought it. Those who had dropped out of school could not re-enter the school system, if they were not within the prescribed age-limits. These rigidities were in the system for very long. At last it was felt, that unless a multiple-entry and exit system of education was planned, some would not enrol and the drop-out could not re-enter the system at a more appropriate time in their lives. (Naik 1975) Hence Indian educational planning turned towards planning a multiple-entry and exit system of education, so that

the door, education is open for all at any stage. The Report of the Review Committee on the Curriculum for the Ten Year School (1977) also recommended that opportunities through formal and non-formal education arrangements in terms of multiple-entry should be available for the drop-outs to re-enter the system at any stage without any difficulty.

Planning is the best use of scarce resources for meeting desired objectives and as such efficiency is important in planning. The expansion pattern of education in India has revealed that economics of education has not been given due regard. Vaizey's (1962) Statement, "Education and Economics are not easy partners". has become prophetic with reference to our country. In Tamil Nadu an Education Finance Commission under the Chairmanship of Adiseshiah (1977) pointed out the need for toning up internal and external efficiency in educational investments. It also pointed out the education that contributes to economic development should get higher Priority besides pointing out the need for cost-benefit analysis in education.

It was felt at some stage, India's Plans were rather centralised, in spite of the wish and effort to involve the people concerned in the planning-process. In the field of education, as a move towards participatory planning, Institutional Planning requires the participation of every school in the drafting of the district plan. Every institution can prepare its own Annual Plan, Five-Year Plan, and Twenty-year Perspective Plan and in the planning process, the entire school community can be involved. Such planning can cover all areas from academic to school community matters.

In India systematic educational surveys had been a comparatively late development. Educational surveys began to play their due role in national planning only with the conduct of the first All India Educational Survey in 1957 by the Ministry of Education. The Second All India Educational Survey was carried out by the NCERT in 1965. The Ministry of Education & Youth Services embarked upon the Third All India Educational Survey in 1973 which covered all aspects of education, not merely school education. The Third Survey covered the educational system right from Pre primary to University Education, and all types of education all institutions including technical and vocational ones. In addition to the items covered in the first two surveys, ~~this surveys~~, this survey extended to Non-formal Education, Tribal Education and facilities for education for the weaker sections of the Society.

Several state-level surveys and local surveys have been completed and all the surveys may be classified as four (i) Fact-finding surveys (ii) comparative surveys; (iii) Evaluative surveys and (iv) Bench-mark surveys. These surveys help in the process of planned educational development.

A:3:11 Educational Management :

Educational administrators at the taluka, district, state and national level had to be urgently trained for implementing the Five Year Plans in the country. The National Institute of Educational Planners and Administrators, New Delhi, was entrusted with this task and this institution provided training in management for the key personnel.

Planning became an integral function of the State Departments of Education and therefore Planning Sections/Units/Cells were established in them. Educational officers were given the orientation to work with the rural people in plan-formulation, elaboration and implementation stages. The need for revising the Educational Rules of the State Departments of Education came to be felt for making educational administration simple and smooth. The management training given to these officers helped to change the organisational climate of education in India at the attitudinal and awareness levels.

The need for altering the organisational climate of the schools for the purpose of facilitating educational experiments and innovations has come to be felt by Government Departments of Education and the Inspectorate.

The Secondary Education Commission (1952-53) and the Education Commission (1964-66) had pointed out the problems of text-books in India. Top-ranking scholars were not associating themselves with the writing of school books, the private enterprise's profit-motive exploited the parents by pricing low quality books at unreasonably high rates and frequent mal-practices came to be reported in the matter of prescribing schools texts. Text-book production has been nationalised, one after the other, in all states. Text-book distribution and sale are being handled by cooperative organisations. Teacher-Guides and teacher-orientation courses for using new books are organised. The NCERT and SCERT are engaged in preparing model text-books.

One of the acute problems in Indian educational administration is the shortage of material resources. With the expansion of education, enrolment ratios have increased phenomenally, but the opening of new schools has not been commensurate with the demand. Shift system has been adopted to tackle this situation. The same school plant, equipment and staff are being utilised for running two shifts a day. Shift system, with many variations, is being practised in many places in the country.

Another innovation to get over the shortage of physical resources in the Indian schools is the 'School Complex Scheme'. The School Complex, in the view of the Education Commission, involves a two-tier grouping of a number of neighbouring schools around a Secondary School. The School Complex is expected to facilitate sharing of the material resources available besides enabling the teachers to have continuous scope for teacher-development under the leadership of the Headmaster/Headmistress of the Secondary School.

Flexible scheduling, as practised in the West has three aspects : the allocation of time, students and course units in terms of modules rather than daily periods the development of teaching teams to replace the individual teacher and the regrouping of students on the basis of actual achievement rather than on the basis of the year or grade. In India scheduling school work is much more flexible. This is further evidenced by the recommendation of the Report of the Review Committee on the curriculum for the Ten Year School (1977) that no rigid academic year should be prescribed and the

school sessions should be scheduled according to local needs. Besides for classes I - IV/V there should be no rigid time-tables. Subsequently when formal time-tables are introduced for teaching different subjects, they should be flexible.

The Education Commission recommended one public school system for all children in India. Streaming and Setting are not being adopted in India, even though, India has not yet evolved one common school system. Mixed ability grouping is being practised in India's multiple school system.

In higher education in the University Sector as well as in the technical education sector, Semester System is being adopted in India. Semester system gives flexibility to course organisation, wider choice of subjects to students, better scope for faculty to teach their specialities and a more sound evaluation system.

The Education Commission (1964-66) had recommended that atleast 50 colleges in India should enjoy autonomy, so that they could attempt to attain excellence and originality. A small beginning has been done in this direction in Tamil Nadu. Nine colleges affiliated to the University of Madras and Madurai Kamaraj University have been granted autonomy recently. In a study conducted by the Madras Institute for Development Education Appasamy (1979) has reported that college autonomy is felt to be necessary by college faculty in order to achieve academic excellence.

A:3:12 Educational Agencies :

Several educational agencies have been established in recent years at different levels viz. national, regional, state and international for performing many specialised educational services. Some of these agencies are governmental organisations, some are autonomous organisations and some are in the form of professional associations. The educational agencies included here are those organisations that student-teachers should be aware of and know the objectives and major purposes of these organisations and the mode of service offered by them so that they may utilise them at appropriate stages of their professional work. In the modern society, teachers can not remain in isolation. They have to utilise other resource systems in their every day professional teaching work, if they intend to make instruction efficient and effective.

The University Grants Commission (UGC) as such was set up by the Government of India under the Act of Parliament in 1956. Besides being a paying, allocating and dispensing body, the UGC performs numerous other functions. Its significant achievements include development of the Central Universities development of Centres of Advanced Study, development of some Centres of Post-Graduate Studies, improvement of libraries and laboratories, improvement of University teachers' morale through periodic pay revision proposals and conducting advanced courses. Above everything else, it has been functioning as a powerful catalyst of new ideas. A report of the activities of the Commission is ~~paid~~ every year before both the Houses of Parliament. The UGC publishes select documentation in higher education, Annual Report, University Development in

India, Occasional Notes, UGC Bulletin, and Journal of Higher Education. More recently, the UGC has taken tremendous effort in examination reform. In May 1973, it brought out "Examination Reform - A Plan of Action", and stimulated certain Indian Universities to set up Examination Reform Units. These Units undertake responsibilities to introduce Semester system, Internal Assessment system, Grading system and Question Bank Schemes in their respective universities. Besides these Units undertake action research into several features of examination reform. In Tamil Nadu, the University of Madras established an Examination Reform Unit in 1977.

Based on Shrimati Committee Report on Rural Higher Education, Rural Institutes were started. There are 14 Rural Institutes in India at Indore, Jamia, Rajpura, Udaipur, Wardha, Amravati, Bichpuri, Gargoti, Birouli, Perianai-ckenpalayam), Gandhigram, Hanumanmath, and Tavanur. Some of them are affiliated to nearby Universities, some of them are deemed to be universities and the other are affiliated to the National Council for Rural Higher Education. They provide trained youth for the country's rural reconstruction programme.

The Central Institute of English and Foreign Languages was set up at Hyderabad as a national institute. It is doing significant service for teaching English as a foreign language in India. It is offering several teacher-training programmes for teachers of English. It is also engaged in educational research in this respect. At the regional level, the Regional Institute of English (RIE), at Bangalore has been responsible

for improving the teaching of English at the school level in the Southern Region. The RIE conducts Radio-broadcast lessons for school children. It has produced lot of curriculum materials useful in Schools by Collaborating with the State Departments of Education. It gets funds from the four State Governments in the Sourthern Region for its programmes.

The NCERT was set up as an antonomous organisation under the Ministary of Education in 1961 to promote, organise and foster research in all branches of education, to organise advanced level training to disseminate knowledge, and to act as a clearing house. Several Departments have been amalgamated to constitute the National Institute of Education (NIE). The NCERT has established field offices in the states, and the Field Offices are headed by Field Advisers, whose job was to coordinate the NCERT activities with the State Departments of Education. The NCERT is unique in many respects and it has contributed significantly to school level education. The NCERT through its Educational Research and Innovations Committee (ERIC) is encouraging innovations and experiments in education.

The Regional colleges of Education (RCE's) were established by the NCERT in 1963 in Ajmer, Bhubaneswar, Bhopal and Mysore with the aim of providing training for teachers of technical subjects in the Multi-purpose schools. Besides the one-year B.Ed. degree, they offer 4 years integrated courses leading to University Degree in Science, Technology, Commerce, Agriculture and English alongwith education and a two years B.Ed. degree course in Industrial Crafts. Recently they have initiated correspondence-cum-summer courses leading to B.Ed.

degree for untrained teachers working in Secondary Schools with five years of teaching experience, in order to exhaust the backlog of untrained teachers in service. The RCE at Mysore is serving the Southern Region.



The Scheme of Kendriya Vidyalayas (Central Schools) have been based on the recommendation of the Second Pay Commission for providing, educational facilities to children of transferable central government employees, Defence Forces and other floating population. The Central Schools Commenced work in 1963-64. The Central Schools Organisation was created with effect from 15th December, 1965 and was subsequently renamed as Kendriya Vidyalaya Sangathan. Kendriya Vidyalayas provide education from I to XII classes and pupils take the Central Board of Higher Secondary Examinations. They closely follow all the innovative features recommended by the NCERT. They provide for learning of Hindi, English, Sanskrit and regional languages. They serve as a valuable instrument for national integration.

The Association of Indian Universities, located in New Delhi was previously known as the Inter-University Board of India and Ceylon, which was set up in 1967 with the following functions: (i) to serve as an Inter-University Organisation; (ii) to act as a bureau of information; (iii) to act as a liaison between Universities to maintain their autonomous character etc. The Association of Indian Universities is an association of University Vice-chancellors.

The Indian Council of Social Science Research (ICSSR) was founded in 1969 and is intended to sponsor research

programmes in social sciences and to advise the Government of India on matters pertaining to such research. The ICSSR has started publication of Indian Dissertation Abstracts from 1973 and this has been the first systematic effort to provide a clearing house for Ph.D. research in Social Sciences coming out from Indian Universities. The ICSSR gives five types of fellowships (i) National Fellowship; (ii) Senior Fellowship; (iii) Post-Doctoral Fellowship; (iv) Doctoral Fellowship and (v) Fellowship.

At the regional level, four Technical Teachers' Training Institutes (TTTI's) were started in India in Chandigarh, Bhopal, Calcutta, and Madras. The TTTI, Madras commenced work in 1966. The TTTI is meant for offering technical teachers training to teachers serving in Polytechnics. The TTTI Madras is an autonomous Institute meant for the Southern Region and it is provided with cent percent Government of India funds and is also getting the collaboration of Government of Great Britain. It is a very innovative institution with reference to technical teacher-education and it is affiliated with the University of Madras for its B.Tech.(Ed.) Programme.

The State Institutes of Education are state level agencies responsible for giving in-service teacher education and training to primary school teachers. The State Evaluation Units are state level organisations responsible for improving the evaluation practices in school education. The State Council of Educational Research and Training (SCERT) is an organisation parallel to the NCERT at the State level with more or less similar functions. The SCERT is the academic wing of the State

Department of Education. In Tamil Nadu, SCERT was formed by amalgamating the State Institute of Education, the State Evaluation Unit and the State Science Institute in 1975.

The UNESCO Regional office for Education in Asia, Bangkok (Thailand) is an international agency in education. Following an agreement signed between the Government of Thailand and UNESCO, the Regional office for Education in Asia was inaugurated in December 1961 and in December 1962 the Regional Office and the Regional Centre for Educational Information and Studies, established in June 1961 were merged into a single office as an integral part of the UNESCO Secretariat: The UNESCO Regional office for Education in Asia. Its functions are to carry out promotional activities i.e. to stimulate and assist Member States in the region in the implementation of the plan of educational development adopted by the Regional Conferences of Ministers of Education in Asia, and to provide documentation, information and advisory services to Member States and to UNESCO field experts in the region. Besides the Asian Centre for Educational Innovation for Development (ACEID) located in the UNESCO Regional Office for Asia at Bangkok has five Associate centres in India for the promotion of educational innovations for development.

A:4 STRATEGIES FOR DEVELOPMENT :

How best can India steer its educational policy and plans so that it can make an adequate educational response to the challenges of the times. Since India is a large country with a population of over 700 million people and a high percentage of adult illiteracy the task of educating millions

of its peoples will be a problem of very great magnitude for some years to come. It is possible to think of several strategies for evolving a 'Learning Society' out of India's state of affairs today. Education should continue to be a top priority item for public expenditure for many more years to come. By means of social education, the community may be motivated to harness all its resources for educational purposes. Those who are ~~educ~~ated may be required to take up the education of one another person upto literacy level each year either on a voluntary or compulsory basis. Every State and local government authorities may be required to enforce compulsory education upto 14 years of age. Shift system may be operated in the educational system for reaching larger number of students. More flexible approach to educational system in the form of designing multiple-entry and exit system of education may be considered. Non-formal educational channels may be developed.

Besides attempting to provide education for all the Indian people, efforts may have to be taken to improve the quality of education that is offered. Curricular reforms to bring relevance to education, linking education with realities of the world, linking education with the world of work and training the youth for self-employment and entrepreneurship may have to be taken up urgently on a very wide scale. Teachers may be suitably educated and trained so that they could offer competent educational service. One of the very effective ways of developing the educational system will be to reconstruct teacher-education on a sound footing. This has been recommended by the Education Commission (1964-66) when it observed, "A sound programme of professional education of

teachers is essential for the qualitative improvement of education. Investment in teacher-education can yield rich dividends because the financial resources are small when measured against the resulting improvements in the education of millions."

A:5 TEACHER - EDUCATION :

Viewing teacher-education development as one of the strategies for developing the Indian educational system, some problems in teacher-education may be considered here. Are teacher-education programmes in the colleges of Education and University Departments of Education effective in turning out competent teachers, who are aware of all the Recent Developments in modern society and who are knowledgeable regarding the latest developments in education ?

In the view of Pillai (1975), Shukla (1974), and Patel (1977), the teacher-education establishments in the country, by and large, do not seem to realise the challenge facing them.

"Colleges of Education in India today live in oblivion of what is happening outside. They still follow much of the traditional curriculum and teaching methods and blame the educational system and its rigid examination requirements for all the ills which accrue from this. Lack of relevance of theory to practice makes the courses dull and the products of the training ill-equipped to meet new demands. Large classes, crowded schools, children who come to school without interest or aptitude to learn academic subjects, shortage of text-books and equipment

and absence of job opportunities for those who complete school are the facts of school education today. To make a success of teaching in this situation would need the formulation of a new theory of education based on actual experiences....colleges of Education have to devise a new curriculum to meet the new demands of the education of the teachers to cope with this situation. (Pillai-1975).

How fruitful have been the efforts to evolve a theory of education suited to Indian conditions and how much are the Indian universities involved in the matter of designing a new teacher-education curriculum based on a new theory of education related to school conditions ~~as~~ they are in the country? In India, teacher-education at the secondary level had remained for a long time in the hands of state government Departments of Education who were busy administrative bodies and lacked forethought for building theories of education suited to Indian conditions. Within the university education sector, teacher-education remained a very neglected area. "The phrase 'Academic Ghetto' seems not too far fetched a description of the state of teacher-education in the University" (Shukla 1974).

How can teacher education contribute to accelerating the developments in the rest of the education system? Teacher-education institutions can play a significant role, with a view to contributing to the reconstruction of the educational system teacher-education institutions in the country should share with the central and State Agencies the leadership in the promotional phase of all worthy educational reforms and changes in the country; (ii) they should interpret the reform

and change movement on a broad and flexible base so that these reforms can be adapted to local needs, limitations, and strengths and (iii) they should harmonise their theory wherever possible with relevant aspects of the reform movement so that practice will cease to be blind and theory will cease to be empty (Manuel, 1975).

There are so many significant developments, experiments and innovations in the educational scene of the country, that it is necessary that systematic effort should be taken that an awareness of these changes and developments is developed in teacher-education establishments in the country so that they conduct research on the theoretical basis and practical consequences of these developments and contribute to the effective dissemination and diffusion of these developments in the country.

If teacher-education programmes are effective in developing Awareness of Recent Developments in Education and knowledge of Recent Development in Education, then student-teachers would have developed favourable teacher attitude towards the teaching profession, class-room teaching, child-centered practices, the educative process, the pupil and the teacher by the end of the teacher-education course and also should have developed skills and habits with regard to utilisation of the diverse Sources of Information. Teachers of such Awareness and Knowledge of Recent Developments will be able to contribute to education in meaningful ways, as properly and adequately educated and trained teachers. Their professional equipment as teachers may be of a high order. Their educational philosophy will be in harmony with the needs and developments of their times. They will appreciate that

everyone needs education, irrespective of his background and merit, and education needs to be offered in a mode and pattern suited to the client-group and education cannot be treated as once-for-all process; on the other hand, it should be available life-long.

Education is meant for the development of the individual in a social context and as such education should give the individual a sense of personal worth and a capacity to contribute to his society's wealth and welfare. Everyone is capable of fulfilling the ~~criteria~~ ^{criteria} standards of education, if each one is given his own time towards this, assuming certain standards in the quality of instruction. The educational philosophy of such aware and knowledgeable teachers would be such that learning is primarily the learner's concern and as such the learner will have freedom to take fields of study of his interest and such learning will bring about new behavioural capabilities on his part.

Teachers, strongly aware and knowledgeable of Recent Developments in Education would appreciate the challenges posed to the individual in the context of an evolving society. Such teachers will not be conservative and dogmatic, and they will be dynamic, open-minded and prone to changes. These teachers would show cosmopolitanism in their outlook and as such they will readily rise above their own cultural limitations and be fit instruments for teaching a world culture to their students. Such teachers may be expected to show in their value system, an abiding regard for preserving world peace and harmony and promote world prosperity.

Teachers who are strongly aware and knowledgeable of the Recent Developments in Education will have conceptual clarity and unity regarding the recent thrusts in education. Because of this conceptual clarity, they will remain in active sympathy with the aspirations of the modern society and offer enlightened co-operation and support to all public policies and programmes in education. They may be quick to adopt officially sponsored schemes of education and they may be quick to respond to community needs for education by readily innovating new structures, patterns and contents in education. They may be expected to be imaginative and innovative teachers. They will be keen to participate in the process of planning of educational development and their contribution will be from institutional to District planning. They will communicate effectively and care for human relations in the process of school administration and enjoy a feeling of participatory management of education, by taking their own legitimate share in decision-making.

Teachers with thorough Awareness and knowledge of Recent Development in Education will be properly conditioned and socialised professional teachers and as such they will pursue their continuing education in their basic subject discipline as well as the discipline of education, after their entry to the profession. They may be expected to participate in a variety of in-service training programmes such as seminar, workshops, and summer Institutes for keeping themselves abreast of developments. They may take up Action Research and seek scientific solutions to practical problems. As competent professional practitioners of teaching, they will cherish professional autonomy.

They will utilise all the available audio-visual aids and also bring about active involvement of pupils in the learning process, by practising a variety of teaching and learning methods. In the matter of evaluation, they may build evaluation as an integral part of their instructional approach and provide prompt feedback to the students for improving their performance levels. They will exhibit psychological and sociological insights in dealing with the pupils individually and collectively, both inside and outside the class-room. Their approach may promote better class-room interaction and finer teacher-pupil rapport. They may be willing to cooperate with parents in the interest of the development of the pupils.

They will show a keen awareness of the role of different educational agencies and institutions and build bridges of understanding and working relationships among them in the cause of education. Often one finds that teachers who are not aware of Recent Developments, tend to remain isolated and do not get the best from other agencies for the purpose of education. The teachers with strong Awareness and Knowledge of Recent Developments will maintain contacts with the state Department of Education, local University, Text-Book Society, NCERT Field Office, SCERT and Teachers' Centre and get benefitted by these resource systems in their many-sided professional development.

Teacher education institutions should endeavour to develop on the part of student-teachers favourable professional attitude towards (i) the teaching profession, (ii) class-room teaching, (iii) Child-centered practices (iv) educational process (v) pupils and (vi) teachers. Attitudes play a

significant role in professional service. Dedication to the teaching profession is necessary, for the student-teacher so that he will commit himself for life-long learning and teaching. Only if the student-teacher develops right attitude towards class-room teaching and child-centered practices, he will attempt to bring about involvement of the pupils in class-room learning, when he becomes a full-fledged teacher. Proper attitude towards the educational process will enable the student-teacher to make systematic preparation for effective education. The way school learning is handled shows the role played by human relations and teacher-pupil rapport and this requires that the student-teacher will have to cultivate proper attitude towards the pupils. Student-teachers should learn to cultivate appropriate attitude to teachers, because there is so much scope for them to learn from the school teachers during student-teaching phase of the training course. Besides in any professional field, one has to show a right attitude for learning from one's more experienced colleagues. In teaching profession, the development of favourable professional attitudes is far more important, than in any other profession, because the teacher's client-group is of an impressionable age and are likely to model after the teacher their own behaviour.

Teacher education institutions should contribute to the student-teacher's awareness of all the recent and significant developments in the field of education. While treating the teacher-education curriculum, teacher-educators may attempt to give an upto-date presentation covering the more recent advances in the conceptual and operational domains of education, if teacher-educators are abreast with recent

developments themselves, they are likely to transmit an Awareness of such developments to the student-teachers. Such awareness may not be confined to the affective domain only. Such awareness will have cognitive, affective and psycho-motor aspects.

Teacher-education institutions will have to provide for a knowledge of Recent Developments in Education to the Student-teacher. The knowledge of some of the recent developments can be included in the formal syllabus. The knowledge of a few other developments, the student-teacher will gather from other sources such as college library, the school contact and the mass media available in his process of professional preparation. A student-teacher should not depend only on class-room lectures from the teacher-educators for building his knowledge of Recent Developments in Education. If the student-teacher is developing a favourable attitude towards the teaching profession and if he has awareness of the recent advances, he may show a readiness to gather knowledge from other sources, namely (i) college faculty (in informal relationships); (ii) classmates; (iii) school-contacts, (iv) college library (v) Public library (vi) The Press; (vii) The Radio (viii) The T.V. and (ix) others. To the extent that he is using other sources of information, it may be expected, that he will have a far more favourable attitude and a stronger Awareness of the Recent Developments in Education.

What will be the relationship of the student-teacher's performance in the academic part of the teacher-education course and his awareness and knowledge of the Recent Developments

in Education? This will depend on several factors. If the academic theoretical part of the course includes a treatment of many Recent Developments in Education, in that event, there may be a close relationship between his performance in the teacher education theory subject examinations and his awareness and knowledge of Recent Developments in Education. If the theory examinations require lot of utilisation of sources of information, besides the lectures delivered by the faculty, then again, there will be a relationship between the student-teacher's performance in the academic part of the course and his Awareness and knowledge of Recent Developments. If the theory examinations in the teacher-education course require only memorising the lecture-notes of the teacher-educators for getting a pass, then there may not be any significant relationship between the student-teacher's awareness and knowledge of Recent Developments in Education and his performance in the theory examinations of the course.

The colleges of Education located in urban areas may be able to promote better Awareness and knowledge of Recent Developments because they have, in the nature of things, a wider range of resources of information as compared to the colleges of Education located in rural areas. Besides the students who go to the urban colleges may show readiness to receive communication from cosmopolite and mass media sources, while student-teachers in rural colleges may cling to inter-personal and localite sources for their awareness and knowledge of Recent Developments.

The colleges of Education under government management

have uniform selection criteria in the choice of student-teachers for doing the teacher-education course. The Government colleges are directed to take candidates strictly according to merit as evidenced in grade sheets within the broad framework of communal representation formula fixed by the government. The colleges of Education under non-government management are free to evoke their own selection criteria for taking student-teachers for their programmes. Hence, larger variation among candidates selected by the private colleges may be noticed. These differences in selection requirements between government and non-government colleges may indirectly influence the Awareness and knowledge of the Recent Developments in Education among their student-teachers.

The biographical variables such as sex, age and independent or dependent status may influence the Awareness and Knowledge of student teachers regarding the Recent Developments. Student-teachers with post-graduate qualifications may have higher Awareness and Knowledge of Recent Development in Education by virtue of the fact that they have a richer educational background. Student-teachers who hold science degrees may excell others with Arts degrees regarding Awareness and Knowledge of Recent Developments in Education, because usually only better students get admitted to Science courses compared to the Arts degree courses. Similarly socio-economic status of the student-teachers will be having indirect relationship with their Awareness and Knowledge of Recent Developments in Education those with high socio-economic status will be better in Awareness and Knowledge of Recent Developments than those of middle socio-economic status who inturn would be better than those with low socio-economic status.

The pre-professional teaching experience of student-teachers, will influence their Awareness and Knowledge of Recent Developments - the more experienced will have higher Awareness and Knowledge of Recent Developments compared to the less experienced. Among the B.Ed. students, those with a first class degree/post graduate degree may be considered as brighter students than B.Ed. students with lower-class degrees and hence they may be expected to possess stronger Awareness and higher knowledge of Recent Developments in Education. In the case of M.Ed. students, the class taken by them in their degree/post graduate degree class may not be an important factor with regard to their Awareness and Knowledge of Recent Developments in Education, because as an experienced group, other variables may play a more significant role than the classes obtained by them.

It is necessary to study the present position of the student teachers in the colleges of Education and University Departments in Education. Such a study would throw light on how far the present teacher education programmes are effective in disseminating and demonstrating wherever necessary the Recent Developments in Education. Besides it is necessary to study the relationship between the five educational variables associated with the student-teachers' performance, viz. Professional Teacher Attitude, Awareness of Recent Developments, Knowledge of Recent Developments, Utilisation of the Sources of Information and Grade Point Average for this may be helpful in curriculum development for the teacher-education in the country in future.

(B) The Problem to be Investigated :

Are the teacher-education establishments aware of the

challenges facing the individual in the context of a modern evolving society? How far are student-teachers aware of the Recent Developments in Education and how far are they knowledgeable regarding these Recent Developments? Will student-teachers coming out of the teacher-education establishments in the country be professionally fully equipped so that they may make a fitting contribution to the development of a would be 'Learning Society' in India? These are certain questions that will be examined in this investigation.

(C) Statement of the Problem :

The current enquiry is on "Awareness and knowledge of Recent Developments in Education and their correlates among B.Ed. and M.Ed. Students."

(D) Scope of the Study :

There have been significant developments in education in the recent years in India and abroad. These developments have been in the philosophy of education, educational policy, structure, pattern, curriculum, methodology of teaching, learning and evaluation, the teaching force and the community in relation to education. New educational agencies at the state, national and international levels have been established to chalk out and implement new programmes, schemes and practices. How far these Recent Developments in Education have reached and how well they have been absorbed by students of teacher-education institutions will be investigated.

This investigation is concerned with the study of knowledge of these Recent Developments among the Student teachers. The students may possess Awareness of a wide range

of Recent Developments in Education. However, they may not be expected to possess a knowledge of all these Recent Developments. Hence, only certain developments considered to be significant and should essentially be known to the students, as judged by the Secondary level teacher-educators of the university, have been selected for measuring the students' Knowledge of Recent Developments in Education.

The investigation is also concerned with the correlates of the Awareness and knowledge of the Recent Developments in Education of the student-teachers. What are the educational variables that are related to Awareness and knowledge of Recent Developments? Professional Teacher Attitude may be one of the related variables. Those who have developed strongly favourable attitude towards the profession may be expected to show a wide range of interest. Awareness and Knowledge of Recent Developments in Education. Another educational variable that may have relationship with student-teachers' Awareness and Knowledge of Recent Developments may be their utilisation of Sources of Information relating to Recent Developments. Only those exposed to a wide range of modern Sources of Information, both inter-personal and mass-media may be able to develop Awareness and Knowledge of Recent Developments. Student-performance in theory examinations conducted by the university may have relationship with their Awareness and Knowledge of Recent Developments. The degree of that relationship will depend on how much the university examinations include the areas covered by Recent Developments in Education. In this investigation, therefore, Professional Teacher Attitude, utilisation of sources of Information and Grade Point Average of the students are considered as correlates of their Awareness

and Knowledge of Recent Developments in Education.

The investigation is concerned with student-teachers of the university of Madras doing their B.Ed. and M.Ed. courses during 1977-78 in the colleges of Education. B.Ed. and M.Ed. students have been chosen for this study because they are at two stages of teacher-education, viz. undergraduate and post-graduate and the teaching in the colleges of Education are largely geared at these two levels.

The investigation deals with five educational variables, namely (i) Professional Teacher Attitude, (ii) Awareness of Recent Developments, (iii) Knowledge of Recent Developments, (iv) Utilisation of Sources of Information and (v) Grade Point Average of B.Ed. and M.Ed. students. The study adopts evaluative cum descriptive survey approach in throwing light on how far B.Ed. and M.Ed. students have developed favourable Teacher Attitude at the end of their courses, and how many of these Recent Developments they have been exposed to and with what intensity and on how many of these developments they have proper Knowledge and how far they have utilised Sources of Information such as college faculty (formally and informally), class-mates, school contacts, college library, public library, the Press, the Radio, the T.V. and others in the process of acquiring Awareness and Knowledge.

The study makes a comparative study on the performance of the B.Ed. and M.Ed. student-groups with regard to the first four educational variables.

In this study the effect of certain independent

variables in the form of institutional variables and biographical variables of the B.Ed. and M.Ed. students on their Awareness and Knowledge of Recent Developments in Education is examined.

With the five educational variables, the study makes a predictive approach, using multiple regression analysis for predicting the Awareness of Recent Developments in Education and Knowledge of Recent Developments in Education, both deemed as criterion variables and treating Utilisation of sources of Information on Recent Developments, Professional Teacher Attitude and Grade Point Average of the B.Ed. and M.Ed. students as the three predictor variables for the purpose of prediction in this section of the study. The predictions of Awareness of Recent Developments in Education and Knowledge of Recent Developments in Education are made separately for B.Ed. and M.Ed. student-populations.

(E) Definition of Terms :

E.1 Awareness : It means, "being conscious of something, the state of perceiving and taking account of some event, occasion, experience or object", according to Dictionary of Behavioural Science (Ed) Benjamin B.Wolman.

In the Taxonomy of Educational Objectives, Volume II (Affective Domain) by David R.Krothwohl et al. (1964), it is observed, "Though awareness is the bottom rung of the affective domain, we are not so much concerned with a memory or ability to recall an item or fact as we are that given appropriate opportunity, the learner will be merely conscious of something that he takes into account,

a situation, phenomenon, object or state of affairs".

Betty Swift (1976) says "Awareness is by no means all or none, rather there are levels of awareness". David R. Krothwohl (1964) agrees with the above for the says, "It is important to note that a range of awareness can occur along a continuum from very unsophisticated or gross awareness to highly sophisticated and detailed awareness".

Based on a synthesis of the definitions mentioned earlier, the conceptual definition of Awareness in this study is, "Awareness is being conscious of something, the state of perceiving and taking account of some event, occasion, experience or object. Awareness is at once an affective, cognitive and psycho-motor characteristic of behaviour and it may occur along a continuum from very unsophisticated or gross awareness to highly sophisticated and detailed awareness".

E.2 Knowledge : In the Taxonomy of Educational Objectives Volume I by B.S.Bloom et al (1956), Knowledge is placed at the bottom in the cumulative hierarchy of the cognitive structure having totally six categories.

"Knowledge as defined here includes those behaviours and test situations which emphasise the remembering, either by recognition or recall, of ideas, material or phenomenon. The behaviour expected of a student in the recall situation is very similar to the behaviour he was expected to have during the original learning situation. In the learning situation, the student is expected to store in his mind certain information. Although some alternations may be expected in the material remembered, this is relatively a minor part of the knowledge behaviour or test. The process of relating and judging is also involved to the extent that the student is expected to answer questions or problems which are posed in a different

form in the test situation than in the original learning situation." (B.S.Bloom et al. 1956).

Knowledge so defined in the Taxonomy by Bloom is closely followed in this investigation.

E.3 Recent Developments in Education :

Dictionary of Education, (Ed) Carter V. Good (1959) defines Development as "growth or change in structure, function or organisation constituting an advance in size, differentiation, complexity, integration, capacity, efficiency or degree of maturity...." Dictionary of Behavioural Science, (Ed) Benjamin B. Wolman (1959) defines Development as "referring to increasing complexity, and/or organisation of processes and/or structure". In this research, "Recent Developments in Education" refer to developments viewed by eminent educationalists and teacher-educators to be recent and significant enough to have influenced Indian education after Independence, irrespective of their indigenous or foreign origin. These developments are in the form of (i) Ideology; (ii) Theories; (iii) Concepts; (iv) Documents (v) Books; (vi) Movement; (vii) Agencies; (viii) Programmes; (ix) Schemes; (x) Practices; (xi) Techniques; (xii) Instruments; and (xiii) Tools.

E.4 Correlates : Dictionary of Behavioural Science (Ed) Benjamin B. Wolman (1973) defines correlate (noun) as "(i) a variable which is in some way related to another variable; a correlation exists; (ii) a principle that is logically ^{related} to another principle or conclusion. This definition has been followed in this investigation.

E.5 B.Ed. and M.Ed. Students:

These are students of the University of Madras doing

their B.Ed. and M.Ed. courses in the affiliated colleges of Education.

(F) OBJECTIVES OF THE STUDY :

The following were the objectives of the present investigation:

- (1) To study the Awareness and Knowledge of Recent Developments in Education of the B.Ed. and M.Ed. students.
- (2) To study the relationship between the following five educational variables among themselves; with reference to B.Ed. and M.Ed. students separately.
 - (i) Awareness of Recent Developments in Education (ARDE)
 - (ii) Knowledge of Recent Developments in Education (KRDE)
 - (iii) Utilisation of sources of Information on Recent Developments in Education (USIRDE)
 - (iv) Professional Teacher Attitude (PTA).
 - (v) Grade Point Average.
- (3) To compare the performance of B.Ed. and M.Ed. students on the first four educational variables, mentioned earlier.
- (4) To study the effect of two institutional variables, namely (i) the Urban/Rural location of the colleges of Education and (ii) the Government or non-Government management of the Colleges of Education on the Awareness and Knowledge of Recent Developments in Education with reference to B.Ed. and M.Ed. students separately.

- (5) To study the effect of following biographical variables on the Awareness and Knowledge of Recent Developments in Education with reference to the B.Ed. and M.Ed. students separately.
- i) Sex
 - ii) Age ,
 - iii) Level of general education.
 - iv) Major field of specialisation.
 - v) Personal status.
 - vi) Socio-economic status.
 - vii) Financial assistance for studies.
 - viii) Teaching experience.
- (6) To study the effect of level of achievement in the degree/post graduate course on the Awareness and Knowledge of Recent Developments in Education with respect to B.Ed. students only.
- (7) To predict the Awareness and knowledge of Recent Developments in Education with respect to B.Ed. and M.Ed. students separately, basing on the knowledge of the other three educational variables, viz. Utilisation of sources Information on Recent Developments, Professional Teacher Attitude and Grade Point Average of the B.Ed. and M.Ed. students respectively.

(G) THE HYPOTHESES OF THE STUDY :

With reference to the objectives of the study, the research hypotheses were formulated and for each hypothesis the priori reasoning associated with its formulation was explained. Whenever it was not possible to construct research

hypotheses, the null hypotheses were stated in G.2 of this chapter for being tested in the investigation. For objectives for which the data was not sufficiently quantifiable, hypotheses could not be formulated and analytically descriptive discussions were carried out.

G:1 Research Hypotheses :

With reference to the objective of studying the relationship between the first four educational variables in B.Ed. and M.Ed. samples, the following research hypotheses were formulated.

- (i) "There would be a significant positive relationship between the Awareness of Recent Developments in Education and the utilisation of the Sources of Information of the B.Ed. and M.Ed. students."

If Student-teachers utilised more sources of Information relating to Recent Developments in Education, they would be sensitised more regarding Recent Developments in Education and develop their Awareness of the same. So also student-teachers who were having high Awareness of Recent Developments in Education were likely to utilise the sources available and explore sources further. Hence a significant positive relationship was hypothesised between Awareness of Recent Developments in Education and Utilisation of Sources of Information on Recent Developments with respect to B.Ed. and M.Ed. students' samples.

- (2) "There would be a significant positive relationship between the Knowledge of Recent Developments in Education and the Utilisation of the Sources of Information of the B.Ed. and M.Ed. Students".

When student-teachers utilise more Sources of Information on Recent Developments in Education it would lead to higher knowledge of Recent Developments in Education. Student-teachers having higher knowledge of Recent Developments in Education, had every possibility of using more Sources of Information. This led to the expectation, that the relationship between these two educational variables should be significantly positive.

- (3) There would be a significant positive relationship between the knowledge of Recent Developments in Education and the Professional Teacher Attitude of B.Ed. and M.Ed. students.

Recent Developments in Education are of such nature, that a knowledge of them would lead to building Professional Teacher Attitude of the student-teachers. So also those who had built favourable Professional Teacher Attitude would have been interested to improve their knowledge of Recent Developments in Education. Therefore, it was hypothesised that there was a significant positive relationship between these two educational variables. Towards the objective of comparing the performance of B.Ed. and M.Ed. students in the first four educational variables, the following research hypothesis was formulated:

- (4) The performance of the M.Ed. students would be significantly higher than the B.Ed. students in Awareness of Recent Developments in Education, Knowledge of Recent Developments in Education, Utilisation of the Sources of Information on Recent

Developments in Education and Professional Teacher Attitude.

Since the M.Ed. students were on an average older students and were post-graduate students in education, it was expected that they should be performing distinctly at a higher level than the B.Ed. students in all the four educational variables. This was based on common knowledge of students in higher education. Why then should this be tested in this research? This hypothesis was relating to educational variables that were not among the chief goals of teacher-education curriculum. In the absence of studies to fall back upon on such matters, the research hypothesis had to be formed on a priori reasoning.

With reference to the objective of studying the effect of one of the independent variables, in the form of institutional variables viz. Urban/rural, location of the colleges of Education on B.Ed. and M.Ed. students' Awareness and Knowledge of Recent Developments in Education, the following Research Hypothesis was constructed.

- (5) "The Awareness and Knowledge of Recent Developments in Education of the B.Ed. and M.Ed. students of the Urban colleges of Education would be significantly higher than those of the B.Ed. and M.Ed. students respectively of rural colleges of Education."

Since this study was concerning Recent Developments in Education it was thought that the urban colleges by virtue of their urban location would not only attract better students than the colleges of Education located in rural

areas, but also command a wider range of Sources of Information relating to Recent Developments. Thus the B.Ed. and M.Ed. students in urban colleges were expected to have significantly higher Awareness and Knowledge of Recent Developments in Education than those students of rural colleges. Towards the purpose of studying the effect of the biographical variables, viz. higher general education, Area of Specification and Socio-economic status on the Awareness and Knowledge of Recent Developments in Education of the B.Ed. and M.Ed. students the Research Hypotheses prepared was as follows:

- (6) "B.Ed. and M.Ed. students with higher general education would have significantly higher Awareness and Knowledge of Recent Developments in Education compared to B.Ed. and M.Ed. students with lower general education respectively".

Higher general education of the Student-teachers was expected to give them an advantage over the others with respect to their Awareness and Knowledge of Recent Developments in Education in this investigation. The higher the level of education completed, better Attitudes, higher knowledge and skills in using resources could have developed on the part of the students and such students would have an advantage over others with lower general education in similar tasks.

- (7) "B.Ed. and M.Ed. students holding degrees in Science subjects would have significantly higher Awareness and Knowledge of Recent Developments in Education, when compared to B.Ed. and M.Ed. students holding Arts degrees".

By and large, better students used to take science degree courses and it was expected that this advantage exhibited

by these students in their B.Sc. and M.Sc. courses when compared with students in B.A. and M.A. courses would continue with them while they did the teacher education course subsequently. Majoring in Science demanded better Caliber of students than majoring in Arts subjects. That was had those who had majored in Science were hypothesised to have significantly higher Awareness and Knowledge of Recent Developments in Education than those who had majoured in Arts subjects.

- (8) "B.Ed. and M.Ed. students with higher Socio-economic Status would have significantly higher Awareness and Knowledge of Recent Developments in Education, when compared with those having lower Socio-Economic Status."

Patel (1977) had indicated that Socio-Economic Status was a facilitating factor in university Examination performance of student teachers in the colleges of Education in the state of Gujarat and therefore, it was expected that it would be similar in this study, especially because higher Socio-Economic Status might give access to a wider range of sources of Information and that utilisation of Sources of Information could lead to higher Awareness and Knowledge of Recent Developments in Education.

- (9) "B.Ed. and M.Ed. students receiving financial assistance for their studies would have significantly higher Awareness and Knowledge of Recent Developments than those not receiving such assistance."

Financial assistance given to students would motivate them to develop a more favourable attitude to the educational

criteria and might result in better achievement when compared to the rest, who were not financially assisted for their studies. Based on such reasoning, it was hypothesised that students receiving financial assistance would have significantly better Awareness and knowledge of Recent Developments than the others. To study the effect of the biographical variable the Level of achievement of the B.Ed. students on their Awareness and Knowledge of Recent Developments in Education, the Research Hypothesis considered was as follows:

- (10) "B.Ed. students holding First Class degrees or Post-graduate degrees will have significantly higher Awareness and Knowledge of Recent Developments in Education, when compared with B.Ed. students having lower class pass of post-graduate degrees."

It was accepted that higher level of achievement such as a First Class could represent the calibre of such students. B.Ed. students holding a First Class pass degree or post-graduate degree were viewed as students with better calibre and it was expected of them, that they should excell in education-related performance such as Awareness and Knowledge of Recent Developments in Education compared to other students with lower levels of achievements.

G:2 NULL HYPOTHESES :

With regard to the objective of studying the relationship between the following pairs of educational variables with respect to both B.Ed. and M.Ed. student-samples,

- (i) Awareness of Recent Developments in Education and

Professional Teacher Attitude.

- (ii) Awareness of Recent Developments in Education and Knowledge of Recent Developments in Education.
- (iii) Awareness of Recent Developments in Education and Grade Point Average.
- (iv) Knowledge of Recent Developments in Education and Grade Point Average.
- (v) Professional Teacher Attitude and Utilisation of the Sources of Information.
- (vi) Professional Teacher Attitude and Grade Point Average.
- (vii) Utilisation of Sources of Information and Grade Point Average.

The null hypothesis formed was:

- (1) "There would be no significant relationship between the abovementioned pairs of Educational variables with respect to both the B.Ed. and M.Ed. student-samples."

For the objective of studying the effect of one of the independent variables in the form of institutional variable, namely, government or non-government management of the colleges of Education on B.Ed. and M.Ed. students' Awareness and Knowledge of Recent Developments in Education, the following Null Hypothesis was set up.

- (2) "The type of management of the colleges of Education would make no difference to the B.Ed. and M.Ed. students' Awareness and Knowledge of Recent Developments in Education."

With regard to the objective of studying the effect of

the biographical variable, viz., sex on the B.Ed. and M.Ed. students' Awareness of Recent Developments in Education, and Knowledge of Recent Developments in Education, the Null Hypothesis set up was as given below:

- (3) "Sex of the B.Ed. and M.Ed. students would make no significant difference to their Awareness and Knowledge of Recent Developments in Education."

For the purpose of studying the effect of two independent variables in the form of biographical variables namely Age and Personal status on the B.Ed. and the M.Ed. students' Awareness and Knowledge of Recent Developments in Education, the following Null Hypothesis was set up.

- (4) "Age and Personal status of the B.Ed. and M.Ed. students would make no significant difference to their Awareness and Knowledge of Recent Developments in Education."

(H) ORGANISATION OF THE THESIS :

The thesis on "Awareness and Knowledge of Recent Developments and their correlates among B.Ed. and M.Ed. students." is presented in five chapters in this report. The first chapter has been used as an Introduction to the investigation. The Second Chapter is concerned with a Review of Related Research. The Third chapter discusses the Methodology of this investigation. The fourth chapter is concerned with Analysis of Data and the fifth and the last chapter presents the Summary of Findings and Implications.



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