

**REPORT**  
**OF THE**  
**EMINAR ON EDUCATIONAL RESEARCH**

**February 14-16, 1966**  
**Azad Bhavan**  
**New Delhi**



**EDUCATION COMMISSION**  
**&**  
**NATIONAL COUNCIL OF EDUCATIONAL RESEARCH & TRAINING**

R E P O R T  
OF THE  
SEMINAR ON EDUCATIONAL RESEARCH  
February 14-16, 1966,  
Azad Bhavan, New Delhi

Submitted by  
Convener  
Dr. Shib K. Mitra

July 10, 1966

DEPARTMENT OF PSYCHOLOGICAL FOUNDATIONS  
National Council of Educational Research & Training  
H-2/3, Model Town, Delhi-9

Secretariate

Dr. Shib K. Mitra,  
Head of the Department of  
Psychological Foundations

Sh. R.P. Seth,  
Superintendent

Sh. K.K. Sharma,  
Research Assistant

Sh. Madan Lal,  
Senior Stenographer

Sh. R.S. Grover,  
Lower Division Clerk

Sh. Jagdish Prakash,  
Peon.

## C O N T E N T S

	<u>page</u>
Introduction	1
Brief History	2
Plan of the Seminar	3
Inaugural Session	4
Inaugural address by Dr. D.S. Kothari	7
Discussion in general session (Education as a Discipline, Educational Development and Educational Research, Inter- disciplinary approach to Educational Research)	10
Separate group meetings	
Training and Facilities for research workers	16
Policy on priorities in Educational Research	25
Administration, Finance, Coordination of Research and dissemination of research findings	27
Closing Session	31
Address by Sh. Prem Kirpal	34
<u>Appendices</u>	
Appendix 1	List of participants
Appendix 2	List of observers
Appendix 3	Programme of the Seminar
Appendix 4	List of papers.

## Introduction

The Seminar on Educational Research met at Azad Bhavan, New Delhi on three days from February 14 to 16, 1966. This is not the first time that an all-India seminar of research workers in the field of education has been organised. A conference of research workers in education, particularly of those who had received grants-in-aid for research projects from the Ministry of Education and the NCERT, had met during the summer of 1963 at Delhi. About three years earlier than that there was another such meeting. The seminar on Educational Research which met in February 1966 is, however, significant because it was sponsored by the Education Commission and the NCERT at a time when the Fourth Five Year plan was still being finalised. The Education Commission particularly wanted from the seminar some directions for its own thinking on the matter of educational research and its development in India. Apart from these considerations about sponsorship and timing of the seminar which made it important, the discussions in the seminar were centred on four main topics concerning various aspects of educational research, which, perhaps, set this seminar apart from all previous conferences that have been held on the subject. Though all the discussions could not be recorded, an attempt was made to record as much as possible. The report is being presented in the hope that those who could not attend the seminar may share with us the same ideas. For those who participated in the seminar, the report may help them to recollect some of their own ideas as well as of others and may perhaps stimulate them to think more on the subject.

Brief History:

The Secretary of the Education Commission, Sh.J.P. Naik, in 1965, had asked Dr. Shib K. Mitra, Head of the Department of Psychological Foundations, NIE, to prepare a working paper on educational research for use by the Commission. Later, both Dr. Mitra and the Secretary of the Education Commission felt that it would be better to convene an all-India seminar on educational research, which should be charged with the responsibility of formulating a national policy on the subject. It was decided that Dr. Mitra will convene an all-India seminar as early as possible and the seminar will be sponsored jointly by the Education Commission and the NCERT. Accordingly a Steering Committee was appointed with the following as members:-

1. Sh.J.P.Naik, Secretary, Education Commission
2. Dr.K.G.Saiyidain, Member, " "
3. Prof. P.S. Naidu, Member, UGC Committee
4. Sh.A.C.Deve Gowda, Director, DEPSE
5. Dr.S.N.Mukerji, Head, Dept.of Educational Administration, NIE
6. Dr. Shib K. Mitra ( Convener)

The first meeting of the Steering Committee was held on 9th December, 1965 and the second on 11th February, 1966. The entire programme for the seminar was chalked out in the first meeting of the Steering Committee. Letters were issued by the convener to a large number of persons, including Professors in disciplines other than education in the various institutions of higher learning and universities, inviting papers from them on the following four topics, as decided by the committee:-

1. Education as a Discipline, Educational Development and Educational Research including Inter-disciplinary approach;
2. Training of research workers and facilities for their work;

3. Policy on Priorities in Educational Research;

4. Administration, Finance, Coordination and Dissemination of research.

The seminar met at the Azad Bhavan, New Delhi from February 14 to 16, 1966, with 39 participants whose names appear in Appendix 1 and with 34 observers whose names appear in Appendix 2.

Plan of the Seminar

The plan of the seminar was that after inauguration by Dr. D.S. Kothari, Chairman of the University Grants Commission and Education Commission, the seminar will meet in a general session to discuss the broad and general issues in educational research arising out of the nature of education as a discipline, the problems of educational development and the approach of interdisciplinary research. This general discussion would continue on the first day in the afternoon as well as on the second day in the morning, allowing the group to express its general concern and to arrive at a common frame of reference for more specific discussion in separate groups. There were three separate group meetings simultaneously from the afternoon of the second day to discuss training of research workers and the facilities required by them, policy on priorities in educational research and administration, finance, coordination of research and dissemination of research findings. The discussion in separate groups starting from the noon of the second day was expected to go on until the afternoon of the third day. The afternoon on the third day was again fixed for a general session to consider the specific recommendations of the three groups. There was working paper for each of the four topics. The one for the general session was prepared

by Dr. A. Mujib, though due to sudden illness he could not be present to initiate the discussion. The Working papers on the other three topics were by Dr. S.B. Adaval on Training and Facilities for research workers, Dr. S.N. Mukerji on Policy on Priorities in Educational Research and Sh. A.C. Deve Gowda on Administration, Finance etc. The discussion on each of these topics was initiated by the persons who wrote the Working Papers, except in the case of Dr. Mujib, who could not be present, and, in his place, at the request of everybody, Sh. J.P. Naik started the discussion. There was a separate Chairman for each session starting with Sh. P.N. Kirpal, Education Secretary to the Government of India, Ministry of Education, who presided over the inaugural session in the morning of the 14th February. Dr. K.G. Saiyidain was in the Chair in the general session which followed immediately after the inaugural functions on the 14th February. For each session there were two recorders.

An office was set up at the Azad Bhavan to meet the requirements of the participants. An exhibition of books was also arranged by the NCERT.

The seminar was inaugurated by Dr. D.S. Kothari, Chairman, Education Commission and U.G.C., and the Valedictory address was given by Sh. Prem Kirpal, Director, NCERT. The programme is given in Appendix 3.

About 40 papers were received from all-over India. The papers which were finally distributed to all the participants in four sets, one set for each topic appear in the list given in Appendix 4.

#### Inaugural Session

The seminar was inaugurated at the auditorium of the Azad Bhavan at 11.00 A.M. on the 14th February, 1966 by Dr. D.S. Kothari, Chairman, U.G.C. and Education Commission.



Sh. P.N.Kirpal, Education Secretary to the Govt. of India, presided over the function. Dr. Shib K. Mitra, Convener, in his welcome address on behalf of the Education Commission and the NCERT said that educational research in this country has a long past but a very brief history. Only after independence, some significant developments in research have taken place. Research is necessary in order to provide a solid base of science and technology to our programmes in education. Our economy is at a take-off point. At such a stage, research in education is<sup>a</sup> necessity because it can play the historic role of charting the map for future progress. He reminded the delegates, that this Seminar has to formulate a national policy in educational research. The recommendations of the seminar will be considered by the Education Commission.

In introducing Dr. D.S. Kothari, Chairman Education Commission and U.G.C., Sh. Prem Kirpal, said that it is a very easy task, although a very pleasant one, to introduce Dr. Kothari for the simple reason that Dr. Kothari needs no introduction. All those who are working in the field of research know him as the distinguished Chairman of U.G.C. and as a great scientist. We are very proud of his association with the National Council of Educational Research and Training. He said, it is a great honour for the seminar to be inaugurated by Dr. Kothari. He observed that Dr. Kothari is now heading the Education Commission which has been assigned the task of studying the whole educational process from primary to university level and to provide for a better orchestration of the educational process. He further observed that in India some people considered research as an isolated activity conducted by some professors who then write monographs

which are not read by anybody. He said that we should not look upon research as an isolated activity but consider it as suggestive of plan of action. He said, Dr. Kothari is such a researcher. He hoped that educational research will help improve the quality of education.

Inaugural address by Dr.D.S.Kothari

Dr. Kothari, in his inaugural speech, said that it is a great honour to participate in this seminar. He remarked that with the closest cooperation between the Government, U.G.C. etc. it would be possible to attain the necessary speed of improvement in our education. He observed that there are two very significant events happening in education in this country: a) recognition of a direct link between education and productivity; and b) realization that research is necessary to improve the process of education. He remarked that the gulf between the poor and the rich can be bridged by education only. In the ancient period, or in the mediæval period, it was not possible to bridge the gap between the poor and the rich. Aristotle could not think of a society without slaves, but now, due to the advancement in science and technology, it is possible to have a slaveless society and to bridge the gap between the poor and the rich. It is this important link between education and productivity that is being recognised. The relationship between education and productivity is mutual, each one interacts with the other. Progress in advanced countries is due to this close link. In an agrarian society, there is neither the need nor the resources for universal education. But a technological society needs not only universal education but an improved quality of education as well.

A few decades ago there was no educational research worth the name, but now there is a growing recognition of the vital importance of research. Two things are necessary for growth in research: (1) we must remove the barriers between college education and school education. There must be a close link between those

working at the university level and those working at the school level. The programme of Summer Institutes that has now started would move in the direction of breaking these barriers.

(2) Another important condition is an interdisciplinary approach in educational research. We need not only professional educators but also scientists, psychologists, etc. There is a possibility that the mechanics of learning process may be studied by those who are well versed in electronics of computers and psychology of learning, etc.

He further remarked that we must now make a distinction between conclusions which are based on dogma and conclusions based on research. A scientist is open-minded. He would commit mistakes, but the procedure of science, being open to empirical verification, is self-corrective. It is this approach that education must take in order to improve its quality.

Dr. Kothari then described two problems as examples which may be attacked by research in the near future:

i) Problem of Selection: He remarked that at present there is no one rational method of selection in our universities. Ashby points out, there is no right way of selecting students for university. In a certain socio-economic structure, it may be even vain to seek it. But researchers must get into this problem.

ii) The second problem, he referred to, was regarding the duration of courses. There are some who feel that the school period should be extended from 10 to 12 years while others feel that such extension of the duration only dilutes the content of education. He quoted Fritz McCullough of Princeton University, who thinks

that most of the school children will learn in 10 years of schooling just about the same what they would otherwise learn in 8 years of schooling.

Dr. Kothari then referred to the rate of growth in research in advance countries. In United States, he said that the number of scientists is doubling itself in every ten to fifteen years. Obviously this cannot continue for a long time because this exponential rate would lead to even animals becoming scientists. There is a sort of saturation that is setting in. But, for the developing countries, the rate in the near future, will have to be high. China has shown that it can surpass this rate of growth in science and technology. The case history of Japan is very enlightening in this respect. Japan started in a very half-hearted random way in the field of scientific research in the beginning of the century. But then, after a certain take-off point, the growth rate in Japan also became exponential, as a consequence of which productivity went high. He pointed out two important conditions for this growth in science and productivity in Japan. He said one of the important conditions for a high productivity was that the school education in Japan was made science-based. Secondly, education was given both in Japanese and European languages. The education in mother tongue bridged the gap between the worker and the scientist. This close link between the layman and the scientist is a very important contributory factor in the progress of a country.

As against the illustration of Japan we may study the growth rate of research in India. He said unfortunately he did not have empirical evidence to say anything about the growth rate in educational research, but as far as

research in chemistry is concerned, India's rank has gone down in recent years. He hoped that efforts would be made to improve the quality of rate of educational research.

After Dr. Kothari's inaugural address Sh. J. P. Naik, Secretary, Education Commission, offered a vote of thanks. This was followed by a coffee-break, after which the seminar assembeled in the main hall of the Azad Bhavan for the first general session.

'EDUCATION AS A DISCIPLINE, EDUCATIONAL  
DEVELOPMENT & EDUCATIONAL RESEARCH,  
INTER-DISCIPLINARY APPROACH TO EDUCATIONAL  
RESEARCH'

The first general session was held on the 14th February at 12.00 noon with Dr. K. G. Saiyidain in the chair. In his opening remarks Dr. Saiyidain welcomed the idea of holding such a seminar, as, in a sense, it seemed to mark the birth of educational research in this country. He said that the gulf between the school and the college should be bridged in order to have effective educational development. For the development of research, particularly, it is necessary to realise that teaching and research should not be separated from each other. He then called upon Sh. J. P. Naik to initiate the discussion on the topic in place of Dr. A. Mujib, who could not attend the seminar on account of illness.

Sh. J. P. Naik raised several issues. The first issue, he said, related to the quantum of educational research which today was very meagre. As an evidence he pointed out that the total number of Ph. D. degrees in Education awarded between 1937 and 1961 were only 88; the average per year even today being not more than 10. A curious thing about educational research in India, he said, was the fact that much of this research was

conducted in England. Lamenting the poor state of development of educational research in the country, he further pointed out that educational research journals were conspicuous by their absence, which also indicated the paucity of educational research material worthy of publication. The bureaucratic attitude of people in authority had also to do something with the present state of affairs.

The second issue related to the quality of research done in the country which, he said, was extremely poor. Many researchers thought that their theses marked the end of their work rather than a beginning. Pointing to another drawback he said that there was concentration of research in the field of mental testing; other important fields were entirely neglected. Further, there was a great deal of unreality in the selection of research problems. Much of the research was a replication of what had been done elsewhere. This he said might be due to the absence of some sort of clearing house arrangement at the central level.

The third issue he said related to the use of research. It is a well-known fact that hardly any use of research findings is being made today in our country. The finds are mostly confined to the four walls of the libraries. This makes our research activity an armchair affair. Other issues, to which Shri Naik referred, related to (1) facilities for training research workers; (2) application of inter-disciplinary approach to educational research; (3) unhelpful attitude on the part of the administrators; and (4) budget for educational research. About the last item he pointed out that we were not spending even 1% of our total budget on educational

research. He tried to underscore the point that very often in the field of education, decisions were undertaken on an ad hoc basis rather than by resorting to research. Perhaps the feeling was that the answers were already known.

Miss Pañandikar, Member, Education Commission, in her speech drew a line between education as a social science and education as a profession. The two, she said, were not synonymous. For education as a social science to develop, it must draw upon various disciplines like sociology, psychology, etc. She stressed that we must give up our close-door policy of confining ourselves within the so-called domain of education. There were two ways to realise this objective: (1) by bringing into the field of education people from other disciplines who would be interested in education and giving them thorough grounding in the foundations of education, and (2) by enriching the experiences of teachers themselves by taking them beyond the confines of teaching alone and giving them some training in the social sciences important for education.

At this stage Sh. P.N.Kirpal sounded a note of caution. He pointed out that by calling education as a discipline of the social sciences we were in fact limiting its scope. Education, he said, constituted a much broader study and included within its realm the arts and humanities as well. Referring to the problem of educational change as a consequence of research, Sh.Kirpal pointed out that we were far away from the position where research, instead of the platitudes expressed by people in authority, governed the direction of change. He stressed the need for building up a climate in which such a situation could no longer continue to



prevail. Such a climate, he said, could be built up, if experimentation was encouraged at all levels, particularly at the school level. The NCERT has started doing something in this direction.

Sh. Aminashilingam Chettiar drew the attention of the group to some of the fundamental problems of educational research which he said were peculiar to our country and which should be taken up as early as possible. Among these were problems of growth and development of the child, which he said were so much different from the growth problems prevailing in the West. There were other problems of national importance like the learning of languages by the children, effect of cinema on the attitudes of children vis-a-vis the influences that were brought to bear upon them through education. He felt that in order to give research a more realistic direction, it was necessary that research and teaching should go hand in hand. Further, it would be advantageous if research centres could be attached to teachers' training colleges. Commenting upon the role of NCERT in the expansion of research activities, he said, it had to play vital role in this connection. It would be better if it invited research proposals direct from the universities instead of requiring them to route those through the State Governments. The NCERT, he said, should also encourage publication of research journals in the country even if it meant providing some financial assistance to the agencies publishing these journals. He also suggested that the NCERT might think of opening a few fundamental research centres in the country.

In the afternoon, the seminar met again in a general session with Sh. J. P. Naik in the chair. The

discussion centred around the following points:-

- (1) How to build up education as a discipline.
- (2) What aspects or phases of education really concerned the research workers at the present stage and in the present context.
- (3) What about the philosophical aspect of inquiry as contrasted with research of a purely empirical nature.
- (4) To what extent the distinction between pedagogy and education as a science could be maintained and to what effect.
- (5) The problem of content and method of education and the relationship between the two.
- (6) Educational research in the context of social planning and industrial development.
- (7) The need for acquainting people of other disciplines with fundamentals of education for better utilization of their services.
- (8) Educational research and social change.
- (9) Need for evolving better communication media for dissemination of research information to consumers of research.
- (10) Administrative bottlenecks in the development of research.
- (11) Academic freedom and educational research.
- (12) Provision of library facilities and other necessary equipments of research in the institutions undertaking research work.

In the morning of 15th February, 1966 the general session continued with Dr. Shib K.Mitra in the chair.

At the outset the Chairman referred to two main issues which he thought important for fresh discussion:

- (1) how to give effect to the inter-disciplinary approach in educational research; and (2) do we really need to separate educational research from teacher-training?

Following the Chairman's remarks, Prof.Kamath attempted to highlight certain aspects of research which he said might engage the attention of research workers in the field. The first, he said, related to the techniques of

imparting knowledge of various disciplines to the child. A second one related to education in the social set-up. Educational research should be concerned with both. Outlining the reasons of what he said as the ineffectiveness of educational research in the country, he pointed out that one of the reasons was the feeling of diffidence among educational research workers themselves about what they were doing. This, he said, should not be there. The other reasons were lack of adequate training on the part of research workers and the faulty organisational set-up in which research was being conducted. He suggested that there was need to strengthen research activity at the state level by instituting state agencies for coordination of research. The teacher-training colleges and State Institutes of Education should try to define their respective roles and areas of work so far as research was concerned. He also considered it necessary that the priorities should be fixed in accordance with national needs. Problems like stagnation and wastage at the primary level and learning of three languages perhaps needed more immediate attention. In order to improve the status of educational research in the country, he further felt that suitable means must be found out to disseminate research information among the consumers of research and in this connection the administrative bottlenecks must be removed. For example, Directors of State Institutes of Education should be given more freedom in matters concerning publication of research reports. He also reiterated the need for a research journal.

Certain other observations made by other speakers of the morning session were as follows:-

- (1) In order to give effect to inter-disciplinary approach educational forums may be organised where people from other disciplines could be invited to present their points of view and get better acquaintance with educational problems.

- (2) Research problems which are more pertinent from the point of view of immediate application should be taken up first.
- (3) Teachers should be made more responsive to research activities carried on in schools. This will result in better utilisation of research.
- (4) There should be more flexibility in rules relating to qualifications of research workers.
- (5) The NCERT should open its branches in different zones of the country so that research work may progress more speedily.
- (6) Courses at the M.Ed level should give greater emphasis on research.
- (7) There should be institutes of research attached to Universities where people from other disciplines may work on problems of education.
- (8) We must evolve a strategy of implementation of educational research so that political considerations do not always come in the way of using research.

Separate group meetings

Three groups were constituted to discuss the three topics; (1) Training and facilities for research workers; (2) Policy on priorities in Educational Research; and (3) Administration, Finance, Coordination of research. The first session of the three groups was held before lunch on the 15th February. There were two sessions after that for each group; one in the afternoon of the 15th and the other on the morning of the 16th.

TRAINING & FACILITIES OF RESEARCH  
WORKERS

Dr. S.B. Adaval initiated the discussion with Dr. N.P. Pillai in the chair. Dr. Adaval led the discussion by inviting attention of the group to important reasons for the unimpressive progress in educational research in India namely:-

- (a) the lack of appreciation of the crucial role of research in the advancement of educational practice,
- (b) little understanding of the fact that good quality

research depends upon the quality of researchers, their competence, training and facilities for work, (c) the research orientation and training provided at the M.Ed level has proved to be highly inadequate for further research work.

For improving the situation he suggested that (1) the M.Ed course be of two years duration in which the second year should be entirely devoted to the completion of a dissertation under efficient supervision;(2) the M.Eds who have passed the examination with credit, should be encouraged to undertake doctoral research by providing larger number of scholarships and fellowships and relaxing impeding conditions like residential requirements; (3) the Ph.Ds in Education be encouraged for undertaking post-doctoral research by providing partial relief from teaching load when employed; (4) diploma courses in Research Methodology, like that of the NCERT, be instituted, which will turn out specialists competent to advise, guide and conduct research; (5) the University Departments should have an extension service for providing training for teacher-cum-researchers within their jurisdiction; (6) institutions like the NIE should continue to provide intensive training in research methodology, should coordinate and integrate efforts of the universities and should stimulate research by publishing list of problems which have been tackled and which need studying from time to time;(7)adequate financial assistance be provided to publish good research work;(8) methods of screening of candidates for training at all levels -post-graduate etc. should be improved; (9) a good background in education, psychology, statistics and related social sciences must be considered essential for educational research and finally (10)the training

programmes should be broad based and should be conducted in close relationship with other social sciences.

Dr.V.Rukma Rao mainly dealt with the (1) levels of educational research (2) the needs of research workers (3) the types of training programmes and (4) the areas of study for research workers.

He posed the question, Is educational research just one uniform operation or does it consist of various levels of operation? He identified three levels in educational research, first level consisted of small research projects planned, executed and reported by single individuals. The second level consisted of larger research projects planned, executed and reported by single individuals, but the latter engage a number of assistants - testing, research, statistical etc. The third level pertains to large research projects planned, executed and reported by a group of individuals.

The needs of research workers for the three levels will be naturally different. The first level workers need to know something of every aspect of research work and must possess initiative, interest, sense of responsibility and the ability to plan a project. The second level workers need the same qualities in increasing degrees, but the assistants need special skills or competencies in entrusted aspects of work. The third level workers in addition to the above qualities need the ability for democratic planning.

The research programmes for the three levels should cover all aspects of research methodology - planning, execution and reporting. But for teacher-researchers who can devote only a part of their time, short courses (2 weeks to 3 months) dealing with fundamentals of classroom research should be organised.

Dr. Rao also invited attention to the well known principle of economics, that of supply and demand, so that only effective and useful programmes be drawn up.

Dr. K.G. Desai emphasised the need of a larger number of research workers, for research is a means of solving problems through unbiased logical thinking. Besides the research organisations, he expected every classroom teacher to employ the technique of action research to solve his classroom problems. He, therefore, remarked that the spirit of research be infused into all who entered the educational field. He suggested that (1) at the B.Ed level each student should get an idea of research methods through practical work on small projects like survey of assembly programmes of schools, investigation into the sex differences in achievement in school subjects etc. The data collected by individuals may be pooled together and processed by the group. (2) At the M.Ed level the supervisor himself should take up a bigger research project and assign work to students in that project instead of guiding each of them on different topics. Also research colloquium should be held regularly to discuss the design of projects and to obtain views and comments. (3) The diploma in research methodology should be more rigorous and should include (a) theory of research methods, (b) statistical techniques (c) practical experience through individual projects (d) participation in research colloquia (e) knowledge of contemporary research in the country and abroad through regular reading of research journals. (4) Lastly, to attract best talent and well qualified persons to the research field, proper incentives and climate be provided.

Dr. Salamat Ullah said that the status of teaching profession in the hierarchy of professions like engineering, medicine and law was perhaps the lowest, both financially and socially, and it was, therefore, quite natural that the educational profession attracted relatively a small number of bright students. The B.Ed clientele consists of a large proportion of third class, that too of Arts only. Since B.Ed is an essential qualification for admission to M.Ed., M.Ed. course cannot be expected to be any better. This, in turn, adversely affects the quality of research work in education. More than this the M.Ed degree is hardly considered as required qualification for any job in the country. It is at best a desirable one. Even in training colleges sometimes double M.A's are preferred to M.A., M.Eds'. And lastly the admission procedures, teaching methods and evaluation techniques were in some way affecting the product of post-graduate students.

He suggested that (1) M.Ed. courses should offer two kinds of specialisation, professional and academic, and should be clear about objectives of producing specialists for various positions in the field. (2) There should be a provision for the study of Education as an academic discipline, for which a two-year post graduate course in Education as distinct from professional courses like the B.Ed and M.Ed, should be instituted. It may be termed as M.A.(Education) to differentiate it from M.Ed. The course should adopt an inter-disciplinary approach and may therefore be tried in such Universities which have a strong faculty in Social Sciences and Education. (3) It should be regarded as a professional obligation of all staff members at the M.Ed. level to do some research themselves. Such members should be provided necessary



facilities and should not be required to supervise practice teaching.

Dr. Pillai highlighted the importance and development of scientific attitude and self-study as part of education at all levels particularly at higher secondary and college. The children can be trained to differentiate between facts and opinions and an attitude of mind which is favourable to find out truth. The use of dictionary, the use of contents and the index for locating information can be very useful. The 'problem' or 'project' method in the teaching-learning process can be a better way to provide basic training. At a later stage training to understand the language of research could be provided to expose students to edited source material.

Prof. P.K.Roy remarked that perhaps one of the reasons for little research worth the name in education was due to the fact that educational researchers undertook research at a very late age of 30-35, while the life-sketches of scientists indicated that the latter had made the most valuable contributions in their fields by the time they were 35 years. Therefore, the educational researchers be caught young and trained for the field. Why was it not possible to orient M.A.'s from other disciplines towards education and allow them to go ahead with researches in Education? A formal training in research methodology should not be compulsory for every body and it should be given only if one has that bent of mind.

Dr. A. Sharma pointed out that the model of physics, chemistry or other disciplines may not be applicable to Education, as it depended on many disciplines. In engineering, medicine, or such other fields, the researches have not been done during the early stages by doctors or

engineers. However Biologists, Chemists, Physicists who played a role in their fields might have done something which affected engineering, medicine etc. Something is possible in Education, if other disciplines contribute on their own, without first specialising in the art of teaching.

Dr.P.Phatak and Dr. Indu Dave pointed out that the objectives of B.Ed. and M.Ed are different; the former lays emphasis on training and the latter on specialisation.

Shri H.Datta was of the view that training in educational research should not be compulsory for all and a student may not be allowed to take up dissertation if he had not obtained 55% marks in the previous papers. He said further that in foreign countries like, for example in Russia curriculum is prepared by experts from other disciplines. But in our country it is expected of the educationists, teachers and related workers. Perhaps we want more and more generalisation, so that one should know more functions, which is against the trend of specialisation in other fields. We have to produce specialists as in medicine like chest, bone, brain and not general medical practitioners only.

Dr. Pareek raised the question of whether the training should be intensive or extensive?

Sh. Datta pointed out that 1) in other subjects like Physics and Chemistry no formal training was provided for research in their fields, and 2) persons from other disciplines were not at all interested in the educational discipline.

Dr. Pillai pointed out that we have to make an inter-disciplinary approach. The area of educational research being wider we will have to involve others.

Sh. L.D. Gupta raised questions about the method of training.

Dr. Phatak suggested that the method of testing by longitudinal methods provided a very good training for research workers; a student is asked to study the bibliography, get the articles, compare the materials and come to conclusions.

Dr. Sharma told the group about the method followed in the Research Methodology Course where persons from different disciplines were admitted and that for a research project there were several guides and not one guide for a student. The designs were presented to a group consisting of the whole staff and students who offered critical comments.

The group recommended that the research workers require certain qualities like scientific attitude and self-study habits which should be developed as a part of general education at the secondary and college levels. Special attention should be given at the B.Ed level to develop right attitude to research. More specifically the recommendations of the group with regard to training and facilities for research workers were as follows:-

- (1) An attempt should be made in the B.Ed course to acquaint the students with educational research so that as teachers they may be able to undertake and understand research for the improvement of class-room practices. It may not be necessary to have a separate course work in the B.Ed. programme in order to give the appropriate learning experiences to the trainees.
- (2) It should be realised that the M.Ed. programme is not a mere continuation of the B.Ed course at the post-graduate level and, therefore, at the Master's level, Research Methodology should be a compulsory paper alongwith the M.Ed. dissertation. This paper on Research Methodology, instead of trying to give a little bit of all research methods, should give a more intensive experience to the trainees of educational research.

- (3) In order to improve the quality of training in Research Methodology as well as in the Guidance of M.A dissertation, the research guides on the teaching staff should undertake research projects themselves and encourage the students to take up research problems for their dissertation in the field in which the guide is himself or herself engaged in doing research.
- (4) For a topic of an inter-disciplinary nature, a committee of supervisors should be formed, The supervisors being drawn from the disciplines concerned with the problem under investigation.
- (5) One of the requirements for Ph.D. in education should be an advanced course in Research Methodology
- (6) Diploma course in Research Methodology may be instituted in the universities on the pattern of the course currently offered by the NCERT.
- (7) Ph.D programme in education may be made open to students with post-graduate qualifications in fields other than education. In admitting such students care should be taken to see that their post-graduate qualification is relevant for the problem of research in education for which a candidate wants to register as a Ph.D student. As such students will lack understanding and knowledge of the theory and practice of education, they should be guided through a planned programme of studies in education to make up the deficiency. Such a programme of studies should be a compulsory part of the Ph.D programme of such students.
- (8) In-service training in Research Methodology may be organised periodically for the members of the staff of training colleges and departments of education to improve their professional competence.
- (9) A research library with a good collection of journals and books and a qualified staff to manage the library should be set up in every research centre.
- (10) Research colloquia and seminars should be a regular feature of post-graduate courses.
- (11) Computational and data-processing facilities should be available to students in every research centre.
- (12) Incentives by way of scholarships, stipends and fellowships should be offered in order to attract talented persons to the field of educational research.
- (13) In a college where both B.Ed. and M.Ed. courses are offered but the staff members are common to both the courses the research supervisors should be made free from supervision of practice teaching.
- (14) In the Departments of Education and training colleges there should be a separate budget head for research so that grants are available to staff members to undertake research.

## POLICY ON PRIORITIES IN EDUCATIONAL RESEARCH

The group on priorities in educational research met with Dr. Madhuri Shah in the chair. The discussion was led by Dr. S.N. Mukerji. After due deliberations the group recommended the following:-

The problems that have arisen as a result of educational development during the last two decades are numerous and they all need to be investigated into. But our resources of manpower and finance are extremely limited and, as such, all can not possibly be given immediate attention. It will be desirable to concentrate mainly on a limited number of problems, but comprehensive and well-integrated in nature. Execution of a random assortment of research projects is not likely to yield much desirable results. The problems undertaken for research should be with reference to a large context and in accordance with a carefully considered plan. The research programme should further be such that it breaks the existing resistance to it.

It was in this context that the group discussed the question under three main heads:

1. Criteria for fixing priorities..
2. The problems or areas that should receive priority.
3. Agencies for determining priorities..

While laying down the important criteria for fixing priorities, the group was clear on the point that they are not of fixed importance for all times to come, but that they are changeable, depending upon the circumstances and stage of educational development. They thus need rethinking and reformulation from time to time.

The group felt that the principles for laying down priorities for the next few years should be as follows:-

- (1) The educational problems which have utmost national,

social and economic importance. (2) Problems for which we have the manpower facilities and finance available. At the same time efforts have to be made to train personnel wherever not available. (3) Continued appraisal of implementation and evaluation of educational plans. (4) Continuation and expansion of existing research programmes and adapting after careful appraisal, ideas and experiments carried out in other countries. (5) Projects which are comprehensive and well-integrated and have practical implications.

The following broad areas of research are suggestive only and have not been arranged in order of priority. The areas for research suggested are as follows:

(1) Wastage in education: Wastage of human resources (pupils and teachers) and of economic resources; problems of exceptional children, of under-achievers, of first generation learners, stagnation, drop outs etc.

(2) Improvement of learning and its applications: including curricular and other types of learning situations; evaluation, basic tools, techniques etc.

(3) Development of various aspects of pupils: cognitive, affective, motivational, values and attitudes with a view to promoting his adjustment and facilitating their application to real life situations.

(4) Relating education to national needs: making the child a good citizen, a good worker and a good member of a family; relating education to employment.

(5) Resistance to change: of the community to new ideas in order to ensure better response to experimentation and research.

(6) Evolving or adapting new educational practices through actual tryouts.

- (7) Raising Teachers' morale and inter-personnel relationship at different levels - between teachers, administrators, and community.
- (8) Selection, recruitment, retention and inservice education of teachers
- (9) Curriculum studies with special reference to work load at different levels.
- (10) Student Services - their planning and execution with a view to make them more effective e.g. mid-day meals, scholarships, residential facilities, day centres etc.
- (11) Evaluation of educational administration, planning and finance - the role, functions and distribution of responsibilities of different agencies, unit cost of different types of institutions; laying down norms for financing education etc.

The group felt that a central agency may be set up for planning, fixing priorities, financing, coordinating and execution of the research programmes. It should consist of representatives of the Ministry of Education, NCERT, State Govts., U.G.C., Planning Commission, Universities, Local Authorities, and selected professional organisations.

Attempts should also be made to set up a similar agency in each of the states.

ADMINISTRATION, FINANCE, COORDINATION  
OF RESEARCH AND DISSEMINATION OF  
RESEARCH FINDINGS . . .

The group on administration, finance and coordination of research and dissemination of findings met with Dr. Prem Nath in the chair. The discussion was led by Sh.A.C. Deve Gowda.

The Chairman set the tone of the discussions by describing educational research as an endeavour needing

cooperation of many people. This requires communication and coordination at several levels. He stressed the need to distinguish between fundamental and practical research on the one hand and on what passes as research but is trivial, on the other.

Sh. Deve Gowda initiated the discussion by giving a gist of his working paper. He first described some salient features of the present position with regard to financing, administration, coordination and dissemination of research. He then posed the following problems: (i) long delays in getting sanctions of funds for research projects, (ii) lack of flexibility in allocation and utilisation of funds, (iii) lack of facilities for the research workers to get funds directly from the source, (iv) despite the NCERT, inadequate coordination of research on an all-India level, (v) lack of interest in research on the part of Educational Associations, (vi) lack of journals, (vii) many research reports because of their format, cannot be readily published, (viii) most of the reports are vague and unspecified about the line of action for the implementation of their findings, (ix) lack of machinery for implementation of research findings.

Shri Deve Gowda then suggested the following: (i) Larger allocation of funds for research; (ii) lump sum grants to universities and more freedom to them for research activities; (iii) more facilities at teachers' colleges to enable them to take up research; (iv) agencies at Central and State levels for financing and supervising research; (v) freedom from some of the financial formalities; (vi) An all-India abstract of educational research; (vii) reporting of research findings in a specific proforma; (viii) findings to be forwarded to appropriate agencies for implementation;



(ix) translation of research reports into regional languages, (Extension Centres and the proposed Field Units of the NCERT may take up this work); (x) careful checking of projects before approval, thorough supervision and serious attention to findings; (xi) annual conferences of research workers.

Several points were made during the discussion that followed the working paper. The following presents a summary under appropriate headings:

A. Structure and organisation of Research

There was a general consensus that efforts should be made to create and promote a climate for research. In this connection, the members emphasised the need for freedom from rigid rules and routine administrative control. They felt that more and more freedom should be given to the researchers to plan and carry out their projects. The following points were raised:

- (i) Organisation of research can be distinguished at three levels: Teacher level, teachers' college level and the University or the NCERT level.
- (ii) Cooperative research or team projects should be encouraged.
- (iii) In order to ensure effective research a minimum size and status of a research unit should be specified.
- (iv) Some agency at the national level and/or state level should be created to promote developmental activities.
- (v) Efforts should be made to secure active cooperation of the State Departments of Education. They should be sensitised to enable them to feel the need for research.
- (vi) Instead of creating new agencies, the existing SIEs' should be strengthened. These also lack adequately trained personnel.
- (vii) Proper staffing is essential. Promotions by seniority alone should be discouraged.
- (viii) Some agency is needed at state level to bridge the gap between service and research. The proposed Field Units of the NCERT may fulfil this task.

B. Sanction of Projects and Grants

There was a consensus that more flexibility was needed in rules regarding sanctions, allocation and utilisation of research funds. The members felt the need for making a direct contact with the researchers, without going through the routine administrative channels. The following points were raised:

- (i) The sanctioning agencies should communicate to the concerned persons the reasons, in case the projects are not accepted. Whenever possible meetings should be arranged to discuss such reasons. Such discussions would be useful for other projects too.
- (ii) The grants should be given directly to the individuals concerned. In some cases grants may be made to professionally known and competent researchers irrespective of whether they apply for such grants or not.
- (iii) Grants may be released in one instalment once the project has been approved.
- (iv) The Universities and other established research organisations have the duty to see that their project research staff get their salary in time whether or not the grants are released in time.
- (v) Good research is not possible without minimum financial outlay.
- (vi) A list of project titles, for which funds might be available, should be circulated widely, inviting proposals. The best of these proposals should be selected and financed.

C. Dissemination

The members felt that very little facilities exist today for dissemination of research. There was also a feeling that sometimes researchers do not report their findings even when facilities are offered to them. The following points were made:

- (i) The existing journals should be subsidised and encouraged to improve their quality.
- (ii) Professional associations should be subsidised and encouraged for organising seminars, conferences and publications.

- (iii) More and more state level meetings of researchers and others should be organised.
- (iv) Wide publicity should be given to availability of research funds and procedure for getting sanctions.

D. Recommendations

The group made the following specific recommendations:

1. At least 1% of the total budget on education should be annually spent on educational research. This should be earmarked only for research, and should be separated from service and development activities.
2. The SIEs and the universities should have more and more collaboration.
3. An Indian Educational Research Association (IERA) be formed with similar State Councils of Educational Research. A conference of the Association be held annually.
4. A comprehensive programme of training of research workers should be undertaken.
5. Some studies on strategies for implementation of research findings should be undertaken.
6. There should be a provision for sufficient number of fellowships. These fellowships should be for 4 to 5 years in the University lecturer's grade. The fellows should be treated as faculty members. The rules should be flexible in order to attract competent students from various disciplines with or without degree in Education.
7. The NCERT should be requested to take lead to initiate actions to implement the above recommendations.

Closing Session

The last general session of the seminar was held

on 16.2.66 in the afternoon at 3.00 P.M. with Prof.P.S.Naidu in the chair. The recorders of the three groups presented the reports of the group discussions as well as the specific recommendations of each group. With regard to the recommendations of the group on 'Training and Facilities for Research Workers', the following points were made in the general sessions:-

- (1) At the B.Ed. level the aim should be to orient the students to research work, which they will be asked upon to do as part of their duties as teachers e.g. to undertake action research to improve class-room practices. The training may be provided by involving them in some practical work like group surveys, group projects etc. as also during the course of their practice teaching.
- (2) In principle, it was agreed (a) that the students from other disciplines should be admitted to research degree in education and (b) that they should be given an appropriate though flexible, programme of study in education.
- (3) With regard to the training facilities for research workers it was pointed out that (a) training should not be considered as a substitute for ability and that a level of ability should be assured before training is imparted; (b) training on the job should be given priority; (c) sufficient attention should be given to the content of the training programmes; (d) the training should be provided at the centres where research is conducted continuously and by the people who are actively engaged in research.

With regard to the recommendations of the group on 'Policy on Priorities in Educational Research' the following areas were also recommended for inclusion in the list proposed by the group:-

1. Research on personnel in education - in view of the expansion of education, newer classes of personnel are likely to be recruited, knowledge about their abilities, attitudes and background would be helpful in planning, innovations in education.
2. Division of educational efforts between formal and informal agencies at one point in time, over different areas and its changing pattern over time in the same area.

3. Production of low cost instructional materials.
4. Some of the newer methods of teaching and the learning such as programmed instruction, correspondence courses.
5. Sociological studies to understand precise utilisation of education - areas and classes where it is spreading.
6. Class-room interaction (within students, between students and teachers and between teachers and administrators).
7. Criteria of Educational objectives.

The report of the group on 'Administration, Finance, Coordination of Research and Dissemination of Research Findings' did not elicit much comment.

The Chairman, Prof. P.S. Naidu, closed the discussions of the seminar at 5.00 P.M. after which the group reassembled to hear an address from Sh. Prem Kirpal, Education Secretary to the Government of India, with Dr. S.N. Mukerji in the chair.

Address by Sh. Prém Kirpal

Mr. Chairman and friends, first of all allow me to introduce to this gathering a very distinguished guest, whom I have brought with me, the gentleman in the extreme right here, His Excellency, Dr. Kane, Education Minister of Liberia, who is visiting India and is the guest of the Government of India at present. Dr. Kane is a sociologist, specialist in social anthropology, very keenly interested in Education, and, of course, deeply involved in educational problems. If he had the time, (he came just a few minutes ago and expressed interest in this Seminar), we would have liked him to deliver this address, which I would have appreciated very much, for several reasons, because we would have had a more distinguished speaker, and also I would not have this nervousness which I have at present. In fact, we have here a group of teachers and professors who make me feel as if I am back to school again, I also suffer from the handicap that after attending a very stimulating inaugural session, it has not been possible for me to participate in the deliberations of the seminar. If that were possible, I am sure I would have picked up some very good ideas, which I could spell out at present.

I shall try to say a few words to-day on the subject of a national plan of educational research. I am sure that the outlines of such a plan are explicit and implicit in your recommendations, which I have not seen, and I am sure you have discussed this subject a great deal. Now, to approach this problem, I shall say a few words, which seems to me a peculiar character of modern education. Taking modern education, not only in India but all over the world, there has been a very great change in the approach to education and place of education in society.

In the past, perhaps before the industrial revolution, education was a matter of tradition, and before the Renaissance it was something which served the Church. It had an ecclesiastical past. But the characteristic of modern education is that it is secular in character. To make it secular it took a very long time, because it was a part of the ecclesiastical order of things all over the world and the liberation of education from the domination of the church of various kinds took a long time. Today one can say that education is secular in character and this has been largely brought about by the march of nationalism and the march of science, the scientific approach, the power of science and also the national sentiment. These are responsible for liberating education from the domination of the church and the ecclesiastical order.

The second feature of modern education is, of course, character of mass education. Mass education is a real feature of the world. Education was confined in the beginning to the dominant classes, first to the priestly orders and then to other ruling classes. But, in our times, this new phenomenon of mass education has to be dealt with by educationists. This, undoubtedly, is the result of the march of democracy and the spirit of equality.

The third feature of modern education, which is well known and is in the process of development, is what I would call education for world citizenship and world-mindedness. This, I think, has two aspects. First, educationists are now increasingly living in an interdependent social and economic order and new forms of organisations are coming up in the world, United Nations' specialised agencies, various international

organisations, which are linking the world together. So, the education of man today, everywhere, must take note of this new feature of modern education, i.e., education for world citizenship, the creation of a sense of world-mindedness. Another aspect of this matter is very important too, that is, we know that there are developed countries and developing countries. Now in this situation of the world community to-day, there is a vast difference between the two, the developed countries and the developing countries. But one thing that all people everywhere aspire to achieve is the international standard. So this element of international standards in education to be achieved by all people is also something new in the system of modern education.

Another feature of our times is that change is conscious and directed, much more so than it used to be in the past. This undoubtedly is due to the power and use of scientific knowledge; the conscious creation of new knowledge and the exploitation of knowledge for the organisation of man and for material welfare of human life in general, including education. So, today change is directed by man to a very large extent. Instead of change taking place haphazardly, unconsciously, resulting from a new world of forces over which man had little control, today, we are masters of our destiny more than ever before. This, I think, is due, more than anything, to the use of scientific research, of creation of new knowledge, the belief that man can extend the frontiers of knowledge, through a proper approach to inquiry, through the expression of the spirit of curiosity, through following certain scientific rules and scientific methods.



This is at the bottom of this great change that we can direct our own destiny today more than ever before..

Now in this wider context of the modern world and the modern system of education, what are the objectives of educational research as such? The objectives, to my mind, are more or less in line with the general objectives of research in any other field.

Firstly, knowledge has to be extended. The research worker is passionately attached to probing into the mysteries of various things and this sentiment in him, this great urge within him, goads him to penetrate into the mysteries and throw light where there was no knowledge and to extend the frontiers of knowledge.

Another objective of educational research is the need to solve practical problems. This is because education is a vast process. It is not merely an academic discipline but a wider and bigger process. In this process, problems arise and to solve these problems research becomes essential. Obviously, one example, which is familiar to everybody, is the problem of wastage in our schools at the primary stage. We are all familiar that in order to solve this we must know all the elements which go into it - social, economic and educational and try to find a solution. So one great incentive of educational research today is the need to solve concrete problems.. This is very important for our own country.

And lastly, another objective of educational research is the planning of programmes. This is, of course, still more important for us because we follow the planning of society, and we have a Planning Commission and Five Year Plans. There is a need to make the best use of limited resources, which lead one on to planning. For the

planning, for the best utilisation of resources, then, educational research is invaluable.

Now, with these introductory remarks, I go on to the need for a national plan for educational research. To my mind, the need today is obvious. We have no national plan for educational research. We do not have even sufficient appreciation of the importance of educational research in all these fields which I have mentioned - in the increase of knowledge, in the solution of problems and in the planning of the educational system. So, there is today, more than ever before, the need for a national plan for educational research. I am sure, this is the conclusion of your recommendations based on your wisdom, knowledge and valuable experience, wherefrom a national plan for educational research will emerge. Now, we need a national plan because education is perhaps the largest national activity today. This is quite evident. We have sixty eight million students today, two million teachers, six hundred thousand institutions of all kinds and about 14% of the entire population is directly involved in the educational process. There are, beyond this 14%, others I do not count, the adult education programme and literacy programme. When by 1980 this educational system completes 100 per cent elementary education, we will very nearly have about a quarter of the population involved in the educational process. Education will become a vast operation and great funds of money will be spent. Within ten years or fourteen years, perhaps, our total expenditure on education has become, I think, five times, from 1950-51 to the present times, i.e., one could say that the nation is spending at present about five times as it did in 1950.

This increase is going rapidly forward, and more and more resources are being allocated. Evidently then the size of the educational activity being so great and so much of effort and resources going into it, it is essential that all these operations should be guided by a national plan for research.

Then I would mention two other needs for a plan; one is also familiar to everybody here, the role of education in affecting social change. More than ever before, we rely on education as the main instrument of change in the country and everything is based on national plans. All the projects of development are ultimately based on the production of a 'will to change' among the people, which can only be done through the educational process, whether it is through the students in schools and colleges or through the adult education and social education programmes. The role of education in affecting social change is both to create this desire to change and also to produce the manpower, the personnel, who will be employed in effecting important changes, modernising society and increasing production.

One other factor I would also mention, it is the close connection between education and culture today. More than ever before, we have to bring culture to masses of people, to preserve culture, to develop culture which is larger than education, where not only the roots of certain civilization are involved but also its aspirations for the future. Education is the most potent instrument. In each society, in each culture, and there are so many cultures in the world, there are certain values, cultural as well as human. Now, to promote these cultural values, and to promote the human values, it is necessary that education should be utilised to the fullest extent. It

is a great objective of education in our society too.

It is obvious that there should be a national plan for educational research.

Now, what the plan should be and how it should be developed is a vast thing and I cannot of course attempt to go into the details of such a national plan. But I would like to mention a few, what seems to me, a few features of a national plan for educational research. I think four or five main features within which such a plan must be developed and developed by thinking, concerted thinking in groups such as this.

First, we must extend the area of educational research. There must be strengthening of effort and greater deployment of resources for educational research. So far the amount spent has been negligible. There has been no plan whatever and education has grown rather haphazardly. A few attempts have been made, to which I would make reference, but these have not penetrated the entire system of education and the whole functional plan for research. So one feature of a national plan for educational research must be a decision to use greater resources for educational research and to employ more people, more scholars and have more departments for this.

The second feature should be planning and coordination of research. Research should be well-planned and coordinated. Hence planning at the national level is very important.

I have seen in some of the papers very wise remarks. One great defect of educational research today is that it is not Indian in character, that it borrows too much from conditions outside which have little relevance to the conditions in India. Now, this is a matter of heritage of the past, because our scholars went for Doctorate degrees

to British universities, to American universities and they took up problems which really belonged to another society. Now, we have to see in the planning of our educational research that it is truly Indian, because, after all, it must serve the Indian educational system. That is the first requirement and therefore we must try to make it as indigenous as possible. In the planning of educational research, and this involves the question of personnel, agencies and resources, I think, we should in our planning fix up certain percentages. Time has come to think of a certain portion of expenditure, especially expenditure on planning and administration, which should go to research. This is a matter for experts to decide how much this percentage should be. I hope that in the formulation of such a plan we would come to a decision that if the total amount which the nation will put on educational planning and administration is going to be so much then a very large considerable part, an adequate part of that, will be used for educational research.

With regard to agencies we have to involve the Universities more. Now here also the development should be a planned development. We should lay down certain criteria for development of Departments of Educational Research at post-graduate level and at each level these criteria should be strictly satisfied before the U.G.C. gives grants for the development of these departments. And here perhaps a regional approach, to begin with, would be useful, to fix four or five or six departments at certain Universities where favourable conditions already exist, to strengthen them and bring them to the level of advanced centres, as we have in the field of science and technology. This approach to my mind is very important.

As regards the criteria which should be satisfied, you have already, I am sure, discussed, the inter-disciplinary approach, the presence of faculty members, the libraries and all these, which will have to be taken into account by those who pick certain departments for being upgraded as Departments of Education in the Universities. The Chairman of the U.G.C. in his inaugural address mentioned that new feature of the closer association of universities and schools in the task of improvement of quality of education, is a hopeful sign for this purpose. Wherever a university department is strengthened for educational research we should see that it has very close collaboration with the school system in the area and, of course, the personnel for research.

Here we have to decide that the doctoral degree which a student will take in the field of education should, I think, have a broader scope. One difficulty today is that pedagogic education, educational degrees have a narrow scope, not only narrow scope in the content of courses and knowledge but also in the scope for the people who take these degrees. I would be in favour here of producing personnel well versed in educational research who should not be confined merely to pedagogy.

They must have competence in another discipline and have an inter-disciplinary approach. A professor of psychology can produce a very good research if anthropology and other disciplines are involved. So the end-product of educational research in the Universities should be trained in broader context and they should have a broader scope in work also. They should be used for educational administration some times, even for management and administration and a larger field should be available

to them. Now, so much for the planning at the national level.

I have said that educational research must become more indigenous and national, but the idea should not go too far in that direction. There is in the planning and coordination of research a very important place for international cooperation and this international cooperation we should not lose in the development of educational research and in the implementation of a national plan. There should be very close collaboration with centres of learning and Universities outside the country. We have the beginning with this, we have so many scholars, so many friends from various departments, universities and this contact should be increased, because while it is true that our problems which we have to solve are indigenous, we must have that approach at the same time. We have to have the best methods of research which are developed not only in India but everywhere. For methodology, we must go to other countries and involve people with them. There are so many general problems of interest to people all over the world and one of the objectives of education, modern education, is to create certain world mindedness and to train people in world citizenship. The awareness of what is happening outside and to keep in touch with the research workers is most important.

Now this leads to the other need in the field of planning and coordination, which has also been mentioned in one of your papers, that is, to have very effective clearing house of information - a clearing house of information which would give information to scholars not only about what is happening in India but also what

is happening outside. We should develop closer co-operation with the international organizations like UNESCO and with schools of educational research in other countries, especially English speaking countries, USSR, with whom we have closer relations now in educational cooperation and some other countries, like Japan. Now these clearing house activities should be organized nationally. It is something which must be done country wide. This brings me to one agency which I have not mentioned so far, which I think has a very important role to play in this programme of developing a national plan for educational research and that is the National Council of Educational Research and Training. Already this Council has undertaken certain activities and has done pioneering work in the field of education but because of limited resources, in money, in personnel, this effort has been limited. I think we should develop, as we have committed to do so, a great National Institute of Education in Delhi for which we have a campus now and that Institute should have the best national library for education, a library which should contain not only books of pedagogy but also books on education as a discipline, something which should be used by scholars from all over the country. This should be a clearing house, a national clearing house for research in the field of education. The National Institute of Education with its Departments, some of which already exist and some more will be organized, would be the focal point of educational research in the country. It already has a net-work of Regional Colleges and the regional machinery is being strengthened for improvement of secondary education, improvement of teacher-training, therefore, this is a very hopeful organization engaged in



the development of research in the field of education.

A third feature, apart from planning and coordination which I have mentioned briefly, of the national plan for education, should be the establishment of priorities. I think that is essential because of the vast part of research, which may be research in anything. Since education is such a big system, we have to laydown certain broad priorities. This priority must be in applied research. We should strengthen applied research, not ignore fundamental research, but give more resources to applied research and specially to the task of finding solutions for practical problems. Now, I would say that here the N.C.E.R.T has already established certain priorities and, I think, these are good enough for a national plan and these important areas of investigation the Council has undertaken, as we perhaps know, are:-

- i) the construction of the curriculum, research into the problems of curriculum
- ii) examination reform
- iii) instructional material including textbooks, problems of production of instructional material specially textbooks
- iv) the programme of teacher development, and lastly
- v) School buildings and the problems of physical plans of educational institutions. So these five priorities have already been established and certain initiatives have been taken by the Council, I suggest that these priorities are adequate for the national plan of educational research.

Then I come on to the fourth feature of such a plan that I deal under the heading of methodology, the methodology of educational research. I will not say much on this because you must have discussed this a great deal. An inter-disciplinary approach is of course, the best approach

and the most fruitful approach, and this has to be developed. This makes it essential to improve the work inside the universities where you can take advantage of the relationship between various disciplines. But this is easier said than done. Within a university with all its complicated machinery, with all the autonomy of different departments, it is not easy to establish relationships between disciplines and make these meaningful. Even in initiating projects of inter-disciplinary character very serious difficulties are experienced. And then we come to comparatively new field of educational research being done through the approach of collaboration between various disciplines. It is not going to be easy. This will depend upon the leadership within the universities, awareness on the part of the heads of the departments for the importance of education, their awareness of the totality of education and what a particular discipline can do to promote educational research. So, very much will depend upon the main person, the Professor of Education in the University. He must be a person with great leadership and with much academic prestige. It is then that the inter-disciplinary approach will emerge.

I have highlighted some practical difficulties but I am sure that these could be overcome. Then, we have, especially in the Indian conditions, where we have a vast country, several states, and at the same time the fundamental problems of education are national in character. The system of education must be more and more national, and we should use something like a project method, an organized team work. For instance when you are having a national study on wastage it is obvious that a great deal of organization of vast project is required.

You cannot confine the study to a small area in one part of the country. We have to go to the rural areas, to urban areas, to people of different levels of development and get hold of the problems of various states. Now all these great problems of research require a good deal of team work and here too we need some agency, a national agency, which will at least encourage in establishing such links. I think the N.C.E.R.T. has a role to play in this matter also in establishing team work and organizing complicated national projects of research for certain important objectives.

In the field of methodology, one thing to which I attach very great importance is experimentation inside the school and we must encourage the school teacher to experiment more and more and attune him to research. Considering what his educational equipment is at present, his status in society and general education this may seem moonshine, but it is not really that. Even this teacher, because he is daily involved in the educational process immediately and urgently, and is really attached to his work, should be encouraged to experiment, to report on his experiment and that kind of thing should become a part of the process of educational research. I have found that a teacher if encouraged, rightly encouraged by the inspectorate and appreciated by the society, is capable of doing much more than we think at present. For instance, I have seen these people who write essays on their experiences. They take a lot of trouble and some very good ideas come out of their papers. (NCERT has such a programme of writing about the experience of teachers, description of experiments). The national awardees I have met every year. I have found that teachers who have been in the profession for twenty

years, or so. The national awardees are always deeply involved in the educational process; but they do need a great deal of encouragement. Encouragement from the administrator is lacking.

And this takes me to the last part of my talk, that is, another feature of the national plan should be the need for evaluation and application of the results of research. Whatever research is done within the national plan must be carefully evaluated and it is even more important that it should be applied; it should be used, the results of such research should be used. Now here we come up against a very great difficulty, especially because of the conservatism of the policy-makers and administrators. I have known an administrator who was so averse to research that he wrote on the confidential role of a teacher 'this was a crank really and was not following the rules'. This kind of approach on the part of the administrator of not only not encouraging but positively discouraging new initiatives and experimentation and research is a great difficulty, and we have to get over it. I hope, as one who is involved with <sup>the</sup> Task Force of Educational Administration in the Education Commission, that our administrators in future would be teachers, that we should have a close relationship between teachers and administrators. Educational administrator should be one who has been teaching at one period in life and who, if he wishes to or it is considered desirable in the interest of work, should go back to teaching frequently. This inter-change between the teacher and the administrator is one thing which can improve the state of affairs. As far as educational research is concerned this is a serious problem, the conservatism of policy makers and administrators,

which stands in the way of utilizing the results of research.

Then, we must take every possible step to disseminate the results of research. This is a serious problem in research in this country, not only in the field of education but even in science. We complain some time that some important researches are done in the national laboratories, but they are not disseminated enough, not even some times carried to people who could make use of such researches. Now we have to take steps here to disseminate through publications, publications which come into the hands of the people who could use such results. This again is something in which the N.C.E.R.T. could play an important role in disseminating the results of research. We should work for a right climate and better relationship between people in order to create a climate for the use of research. Research should not be idle and remain apart from the world of action in the field of education. One thing which is lacking in our society is the appreciation of new ideas. Even in our newspapers and media of mass communication reporting is done of the statements of people in high authority, political leaders, chief ministers and ministers. But their statements on education, as these are, do not add very much to the sum total of human knowledge. We frequently hear that education is very important and this is presented as head lines, so and so says education is something very important and variations of the same statement. Now, if we are going to ask our press and the mass media of communication, except in a few of these organs of public opinion their reporters, writers do not themselves appreciate or recognise new ideas. So I say that we should have some time a seminar of this kind;

where we should bring the educationists and the press together and study the role of journalism, for instance, or of the press in promoting educational reconstruction and educational ideas. And this is something which has to be done and its outcome depends upon the kind and quality of people who are involved in the present day newspapers.

Then, we must win public opinion in favour of the use of educational research. Education is something in which all are interested therefore the results of research should<sup>be</sup> given in a simple language and great research workers should<sup>always</sup> produce something which could be very easily understood by people. This kind of presentation is very important in research. We must not make a piece of research so unreadable that its communication is limited to a small body of educational pundits and nobody else understands. Then it is of no use. The presentation of the results of research must be such that they contribute to the building up of public opinion about these things and if we find public opinion favouring something new, something new which has resulted from experimentation, from research, then this could be applied even by the present day administrator.

We should attach very great importance here in the field of application of research to inservice education-inservice education of teachers and administrators also. Here we could try something by the method of correspondence courses, i.e. the N.C.E.R.T. should produce not only teachers, manuals, and all that there is necessary, but also some periodical literature presenting important results of researches done, investigations carried out and these should be conveyed to teachers and administrators

periodically. If they are well presented, perhaps the teachers and administrators will read these and take benefit from this. So the inservice education of teachers and administrators is essential to carry research to people who will make use of it.

And lastly the follow up work of conference such as this seminar and workshops and the chain reaction which could take place from discussion of such bodies should be organized better. We have many seminars. In fact India must be one of the leading countries in the quantity of seminars, but we should aim at better quality by very thorough follow-up work. This follow-up work, again, provides for development of new ways, new methods and new techniques. I am sure, for this particular seminar, Education Commission and the N.C.E.R.T. will take every possible step to do some follow up. Of course, the Education Commission, if they put some of the recommendations in their report, it will be a very big follow up for this Conference. But the N.C.E.R.T. has a duty to see that the results and the recommendations are implemented and something is done about it.

So these, to my mind, seem to be the broad features of a national plan for educational research and I think we, all educationists, all those who are involved in the teaching, research and administration should get down to develop such a plan. Now in the fourth plan there will be a certain amount earmarked for a broad category of educational planning, research and administration. But it would be, I think upto the specialists, and this requires the follow up of a conference like this, to get down to the details, to help in the agencies who are responsible for the up-grading of departments in

Universities, better organization of arrangements in the N.C.E.R.T. , of having clearing house facilities, building up public opinion, better relations with the press and all these things, if all these be thought out in detail it would be for the educational planners to develop this thing. It is a field which is fairly limited, it is a field in which at present the people who work in it know each other. So the task is fairly easy if sufficient leadership and, more than that, a great deal of interest is developed in this field of educational research.

That is all, Mr. Chairman, which I had to say for today and I thank you all for listening to me with so much patience.

Thanks

The seminar ended with a vote of thanks to Sh. Kirpal, members of the education commission and the participants to the seminar proposed by Dr.S.K.Mitra, who, in proposing the vote, expressed his deep appreciation of the help given to him by the members of the Steering Committee, the office of the Education Commission, the Indian Council for Cultural Relations, and the members of the staff and office of the Department of Psychological Foundations, NCERT, and the Department of Audiovisual Education, NCERT.



SEMINAR ON EDUCATIONAL RESEARCH

List of participants

1. Dr. S.B. Adaval,  
Head,  
Department of Education,  
University of Allahabad,  
Allahabad.
2. Sh. S.L. Ahluwalia,  
Head,  
Department of Audiovisual Education,  
NCERT,  
Delhi
3. Shri T.S. Avinashilingam,  
Director,  
Sri Rama Krishna Mission,  
Vidyalyaya,  
Perinai-kumpalayam,  
Coimbatore.
4. Dr(Mrs) C.L. Bhatt,  
Reader in Education,  
Gujarat University,  
Ahmedabad.
5. Dr. M.B. Buch,  
Head,  
Educational Survey Unit,  
NCERT,  
Delhi.
6. Dr. B.B. Chatterji,  
Professor of Psychology,  
Gandhian Institute of Studies  
Rajghat, Varanasi-1
7. Dr: D.V. Chickermane,  
Director,  
G.K. Institute of Rural Education,  
Gargoti.
8. Dr. J.C. Dasgupta,  
Principal,  
David Hare Training College,  
Calcutta.
9. Prof. H.Datta,  
B.R. College of Education,  
Agra.
10. Dr.(Mrs) Indu Dave,  
Vidya Bhawan,  
Udaipur.
11. Dr. R.K. De  
Asstt. Prof. in-charge,  
of the Research Department,  
Post-Graduate Basic Training College,  
Banipur.

12. Dr. K.G. Desai,  
Principal,  
A.G. Teacher's College,  
Ahmedabad.
13. Sh. A.C. Deve Gowda,  
Head,  
Department of Field Services,  
NCERT  
Delhi
14. Prof. B.Ghosh,  
Head,  
Department of Curriculum Methods & Textbooks,  
NCERT  
Delhi
15. Shri L.D. Gupta,  
Principal,  
State Institute of Education,  
Sector-20,  
Chandigarh
16. Dr. A.R. Kamat  
Professor of Statistics,  
Gokhale Instt. of Politics & Economics,  
Poona
17. Dr. T.A. Koshy,  
Head,  
Department of Adult Education,  
NCERT  
Delhi
18. Sh. H.B. Majumdar,  
Head,  
Department of Basic Education,  
NCERT  
Delhi
19. Dr. N.Vedman Mannet,  
South Indian Teachers Union  
Madras.
20. Dr. Shib K. Mitra(Convener)  
Head,  
Department of Psy.Foundations,  
NCERT,  
Delhi.
21. Dr. S.M. Mohsin,  
Professor of Psychology,  
Deptt. of Psychology,  
Patna University,  
Patna
22. Dr. Nirod Mukerji,  
Professor of Psychology,  
Department of Psychology,  
Bombay University,  
Bombay.

23. Dr. S.N. Mukerji,  
Head,  
Department of Educational Administration,  
NCERT,  
Delhi.
24. Dr. A.N. Pandeya,  
Research Consultant,  
The Indian Law Institute,  
Bhagwandas Road,  
New Delhi
25. Dr. Udai Pareek,  
Director,  
Extension Centre,  
SIET Institute,  
Yosufgoda Road,  
Hyderabad.
26. Dr.(Mrs) P.Phatak,  
Reader, Deptt. of Child Development,  
M.S.University,  
Baroda.
27. Dr. N.P. Pillai,  
Dean of the Faculty of Education,  
University of Kerala,  
Trivandrum
28. Dr. Prem Nath,  
Professor of Philosophy,  
Punjab University  
Chandigarh
29. Dr. H.K. Rukma Rao  
College of Education,  
Osmania University,  
Hyderabad.
30. Dr. M.S.A. Rao,  
Reader in Sociology,  
Deptt. of Sociology,  
Delhi School of Economics  
Delhi
31. Prof. P.K. Roy,  
Principal,  
Central Institute of Education,  
33-Chhatra Marg,  
Delhi
32. Dr. Salamat Ullah,  
Principal,  
Teacher's College,  
Jamia Islamia  
Jamia Nagar,  
New Delhi.
33. Sh. M.C. Sekhar  
UNESCO Research Centre,  
University Enclave,  
Delhi,

34. Dr. Madhuri Shah,  
Superintendent of Municipal Schools,  
Municipal Corporation,  
Bombay.
35. Miss. M.S. Shah,  
Reader,  
State Institute of Education,  
Raikhad,  
Ahmedabad.
36. Dr. S.C. Shukla,  
Dy. Director,  
Regional Centre for the Training of  
Educational Planners, Administrators &  
Supervisors in Asia  
Indraprastha Estate, Ring Road,  
New Delhi.
37. Dr. (Mrs) Parkash P. Singh,  
Sr. Research Officer,  
Deptt. of Curriculum Methods & Textbooks,  
NCERT  
Delhi.
38. Shri R.P. Singh,  
Principal,  
Kishori Raman Teacher's Training College,  
Mathura.
39. Miss S.K. Zaidi,  
Reader in Education,  
Aligarh Muslim University,  
Aligarh.

SEMINAR ON EDUCATIONAL RESEARCH

List of observers

1. Dr. Walker H.Hill(T.C.C.U.Team)
2. Dr. Robert W.File(T.C.C.U.Team)
3. Dr. Ramakrishna ( I.I.T) Delhi

N.C.E.R.T. Staff

1. Sh. N.A. Ansari
2. Mrs. Kamala Arora
3. Sh. Q.L. Bagga
4. Sh. S.C. Chaudhary
5. Sh. M.R. Chilana
6. Sh. K.C. Datta
7. Smt. P.Dass Gupta
8. Sh. S.L. Gajwani
9. Sh. Kanta Prasad Garg
10. Sh. A.S. Ghosh
11. Sh. J.C. Goel
12. Sh. S.L. Gupta
13. Sh. N.K. Jangira
14. Sh. M.L. Jha
15. Sh. L.P. Kadam
16. Dr. G.N. Kaul
17. Sh. P.D. Khera
18. Sh. R.N. Mago
19. Dr.(Miss) E. Marr
20. Dr(Mrs) Perin H. Mehta
21. Shri K.V. Nair
22. Smt. M. Pachori
23. Miss. A.D. Premalatha
24. Dr. H.P.Saksena
25. Mrs. Sohinder Kaur
26. Sh. I.S. Sharma
27. Shri L.C. Singh
28. Shri C.L. Sapra
29. Mrs. V. Sondhi
30. Sh. L.R.N. Srinivas
31. Sh. C.S. Subba Rao.

SEMINAR ON EDUCATIONAL RESEARCH

February 14-16, 1966

## PROGRAMME

<u>February 14</u>	Morning session starts at 10.00 a.m.	Afternoon session starts at 3.00 p.m.
10 A.M.	Registration	Discussion on the same topic continued.
11 A.M.	Inauguration by Dr.D.S.Kothari	Chairman, Sh.J.P.Naik
12 Noon	Discussion on 'Education as a Discipline Educational Development & Educational Research, Inter-disciplinary approach to Educational Research'  (Working paper No.1)  Led by Sh.J.P.Naik  Chairman Dr.K.G. Saiyidain  Recorders Sh. B.Mehdi Sh.M.V.Rangana	Recorders, Sh.B.Mehdi Sh.M.V. Rangana
<u>February 15</u>		
10 A.M.	Discussion on the same topic continued  Chairman, Dr. S.K.Mitra  Recorders. Dr.A.Sharma Sh.R.P. Singh	Discussion in the three groups continued.
12 Noon	Discussion in three groups  1. Discussion on 'Training and facilities for research workers', (Working paper No.2) Led by Prof. S.B.Adaval Chairman. Dr.N.P. Pillai Recorders Dr. A.Sharma Sh.R.P.Singh  2. Discussion on 'Policy on Priorities in Educational Research' (Working paper No.3) Led by Dr. S.N. Mukerji Chairman. Dr. Madhuri Shah Recorders. Dr.Uma Sinha Mr.Balasubramaniam	

-: 2 :-

3. Discussion on 'Adminis-  
tration, Finance, Co-  
ordination of research  
and dissemination of  
research findings'

(Working paper No.4)

Led by Sh. A.C. Deve Gowda

Chairman. Dr. Prem Nath

Recorders Dr. Prayag Mehta

Mr. A. Aziz

February 16

3.00 P.M. (Closing session)

Group discussions  
continued.

Consideration of the group  
reports and the report of  
the seminar.

Chairman. Prof. P.S. Naidu

Recorder. Mrs. S. Shukla

6.15 P.M. Address by

Shri P.N. Kirpal.

'mehta'

List of papersTopic (1)

1. Education as a Discipline  
(Working paper-1)  
Dr. A. Mujib,  
Head, Deptt. of Education,  
Muslim University  
Aligarh
2. Educational Research & Educational Development.  
Dr. R.K. De  
Asstt. Prof-incharge of the Research Department  
P.G.B.T. College,  
Banipur
3. a) Educational Research & Educational Development  
b) Teacher Education & Educational Research  
Principal,  
Institute of Education for Women,  
Calcutta-27
4. Research & Educational Development  
Dr. D.V. Chickermane,  
Director,  
G.K. Institute of Rural Education  
Gargoti.
5. Educational Research in India; A Review  
Dr. B. De M.A., Ph.D.  
Director of Educational & Vocational Guidance Bureau,  
Patna.
6. A note on Educational Research in India  
Mr. S.L. Gajwani, Mr. K.K. Sharma and  
Dr. Shib K. Mitra Deptt. of of Psy. Foundations N.C.E.R.T.
7. Inter-disciplinary approach in Educational Research  
Mr. Anil Vidyalankar,  
Deptt. of Curriculum Methods & Textbooks  
NCERT  
Delhi
8. Inter-disciplinary approach in Educational Research  
Sh. R.P. Singh,  
Principal,  
Kishori Raman Teachers Training College,  
Mathura
9. Inter-disciplinary approach in Educational Research  
Dr(Mrs) P. Phatak,  
Reader in Child Development  
Faculty of Home Science,  
M.S. University  
Baroda.



10. The Need for Inter-disciplinary approach to Research in Education.

R.K. Misra,  
Deptt. of Psychology,  
University of Allahabad,  
Allahabad.

11. Inter-disciplinary approach in Educational Research.

Dr. (Mrs) Parkash P. Singh,  
Sr. Research Officer,  
Deptt. of Curriculum Methods & Textbooks  
NCERT,  
Delhi.

12. Inter-disciplinary Research - A Promising Challenge.

Dr. Jagdish P. Dave,  
Reader in Education,  
Gujarat University,  
Ahmedabad.

13. Planning Educational Research.

Dr. H. Webster,  
Teachers' College Columbia University  
Team in India.

14. Development of Educational Research.

Dr. Shib K. Mitra,  
Head,  
Deptt. of Psychological Foundations,  
NCERT,  
Delhi.

Topic (2)

1. Training & Facilities for Research Workers (Working paper No. 2)

Dr. S.B. Adaval,  
Head,  
Deptt. of Education,  
University of Allahabad,  
Allahabad.

2. Training of Research Workers.

Dr. V. Rukma Rao  
College of Education,  
Osmania University,  
Hyderabad.

3. Training of Research Workers.

Dr. K.G. Desai  
Principal,  
A.G. Teachers' College,  
Ahmedabad.

4. The Training of Research Workers.

Dr. N.P. Pillai, M.A. Ph.D.,  
Dean, Faculty of Education,  
University of Kerala,

5. Teacher Education, Educational Development and Educational Research.

Mrs. Nalini Das,  
Principal,  
Institute of Education for Women,  
Calcutta-21.

6. Post-Graduate Studies and Research in Education .

Dr. Salamat Ullah,  
Principal,  
Jamia Millia College,  
New Delhi.

### Topic (3)

1. Policy for fixing priorities in Educational Research (Working paper No.3)

Dr. S.N. Mukerji,  
Head,  
Department of Educational Administration,  
NCERT,  
Delhi.

2. Priorities in Educational Research in India.

Shri K.P. Chaudhary,  
Principal,  
Training College,  
Burdwan.

3. Policy regarding Educational Research.

H.K. Khanapurkar,  
Lecturer,  
College of Education,  
Osmanabad.

4. Policy on Priority in Educational Research.

Dr. M. Mukerji,  
Prof. of Psychology,  
Bombay University,  
Bombay.

### Topic (4)

1. A Note on Educational Research in India (Working paper No.4)

Shri A.C. Deve Gowda,  
Head,  
Department of Field Service,  
NCERT,  
Delhi.

2. Dissemination of Research Findings .

Dr.R.C. Das ,  
Prof-in-charge,  
Bureau of Educational & Psychological Research,  
David Hare Training College,  
Calcutta-19.

3. Dissemination of Research Findings.

Dr. N.N. Shukla,  
Principal,  
Sadhana School of Educational  
Research & Training,  
Bombay.

4. Dissemination of Research.

Dr.(Miss) C.L. Bhatt;  
Reader in Education,  
Gujarat University.

Miscellaneous

1. The Expendiency of the Guidance & Counselling Programme in the Secondary Schools of India.

Dr. Shukumar Bose M.Sc.D. Phil.  
Department of Psychology,  
University of Calcutta.

2. Modern Trends in Psychology and Education.

Dr. S.Bhattacharya,  
Advanced Centre of Education,  
M.S. University,  
Baroda.

3. Abstracts of papers.

Prof. R. Ramanujachari,  
Department of Education,  
Annamalai University.

4. Education, Social Stratification & Mobility.

Dr. M.S. A. Rao,  
Reader in Sociology,  
Delhi School of Economics,  
Delhi.