CHAPTER VI.

FACILITIES FOR HIGHER EDUCATION AND FOR SCIENTIFIC RESEARCH.

The public mind commonly identifies research with research in physical and natural sciences, largely because it is thought that such research means more industrial wealth, which is considered an absolute good and a proof of progress in civilization. Adequate recognition is not accorded to the utilitarian, the scientific and the cultural aspects of educational research. In India we can speak of a fairly complete blackout in the matter of research in general and of educational research in particular. Research has in fact been neglected because it is supposed to involve wasteful expenditure of money and energy. The inevitable result is that we have had to draw largely upon the findings of researchers belonging to other countries.

Below are given some instances of the relatively delayed introduction of higher degrees and research in education in our universities:

<table>
<thead>
<tr>
<th>University or Sect. of Public Instruction</th>
<th>Establishment of Post-Graduate Training College</th>
<th>Institution of M.A. Degree</th>
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</thead>
<tbody>
<tr>
<td>Madras.</td>
<td>1857 (first post-graduate training college in India).</td>
<td>Nineteen Thirties.</td>
</tr>
<tr>
<td>Allahabad.</td>
<td>1901-02.</td>
<td>194-...</td>
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<tr>
<td>Lucknow.</td>
<td>1906.</td>
<td>1940.</td>
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<tr>
<td>Bombay.</td>
<td>1908.</td>
<td>1943.</td>
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<tr>
<td>Aligarh.</td>
<td>1932.</td>
<td>1945</td>
</tr>
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</table>

The reasons for this deplorable indifference to educational research in the past is not far to seek. The system of education as a whole was based on the requirements of an administration ruled by foreigners, whose main concern was the exploitation of the resources of the land. Even the maintenance of law and order derived its urgency from the need of producing conditions for successful exploitation.
The result was that education, instead of being broad-based upon the needs of the community, was grafted from above. The British needed clerks and petty officers; all that was needed for the successful running of offices was skill in the use of the English language. The development of the intellect was not only not necessary, it might in fact prove inconvenient.

One of the aims of the Calcutta Madrasah, the first Government educational institution in this country, founded by Warren Hastings in 1751, was "to produce competent officers for the Courts of Justice to which students of the Madrasah, on the production of certificates of qualification, were to be drafted as vacancies occurred." (1)

The Benares Sanskrit College, founded in 1791 by Jonathan Duncan, Resident at Benares, (afterwards Governor of Bombay), was also designed "specially to supply qualified Hindu assistants to European Judges" (2)

The Court of Directors of the East India Company concluded their Despatch, dated the 5th Feb. 1827, (in which they reviewed the proceedings of the General Committee of Public Instruction established in Calcutta in 1823), with the following words: "...... the first object of the improved education would be to prepare a body of individuals for discharging public duties. It may be repeated that the extended course of education will not produce a higher degree of intellectual fitness ...... and ... supply you with Civil servants to whose probity you may .... commit offices of trust ........." (3) Wood's Despatch of 1854 repeated the same aim.

"Hesitant, half-hearted schemes of educational expansion, petty reforms in methods and curricula and an admittedly unsatisfactory framework within which

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(1) & (2). Macaulay's Minutes: vide a Source Book of Modern Indian Education by M.K. Narainjee, A Note on the above by H.T. Prinsep, with Macaulay's Marginal Notes, and Education of the People of India by Charter Trevelyan. London, 1892.
tinkering with educational problems would be feasible, rejection of all radical and progressive schemes on the plea of finance, readiness to offer education as the easiest sacrifice at the first alarm call of retrenchment—these sum up, unfortunately, the attitude of Indian educational policy since the days of East India Company. (4)

With this aim in view, every thing alien was studiously introduced here irrespective of local conditions and ideals and in such a way as to leave no room for original thinking and independent work. Too little attention was paid to character building. There was too little creative activity and too much listening, with no provision for taking responsibility and winning helpful experiences in social and research activities.

The situation continues unchanged and the consequences of this state of affairs are as fatal for the younger generation as for society. The products of education are falling easy victims to an inferiority complex and are predestined to form those elements in social life that are open to the destructive influence of every kind of negative propaganda.

India has imposed serious responsibilities upon the citizens of India. For discharging these responsibilities satisfactorily the future citizen must be rightly educated. For solving correctly problems relating to curricula, method and organisation of education suited to the present and future needs of the country, educational research must find a place in our programme of education. It would make educational adjustment and reconstruction intelligent by revealing relevant facts and principles, by testing the results of experiments and changes, and by suggesting new problems and new solutions. At no stage were research and

proper guidance so vital as they are today. Investigation and research will illumine our understanding of every aspect of educational activity, and will clarify the sociological and psychological bearings of educational problems.

Whatever small amount of work in educational research has so far been attended in this country has been done by a small body of expert psychologists. The ordinary teacher has contributed very little by way of fresh thought, largely because the present cultural and professional preparation does not give him the necessary training, nor the conditions surrounding his work are conducive to research. Moreover, in general, lack of protection and encouragement by society, meagre facilities for research at training colleges and universities, lack of adequate guidance, of comprehensive and organised material, and lack of recognition of research as a condition for further promotion - these and similar causes have been responsible for the slow advance of educational research in this country.

Now there are a number of problems in India requiring immediate and thorough research. For instance:

1. Sociological and Psychological: - Analysis of social environment into its components, i.e., family, school, community etc., their affiliations and conflicts and resulting effects upon children and adults. Standardization of psychological and other tests. Contents of mind, needs and interests of different age-groups.


(ii) Instruction: Experimental nature.
of instruction, e.g., individualisation, activity programmes, etc., relative efficiency of collective and individual teaching.

(iii) Curriculum: The most profitable pre-primary, primary and post-primary courses according to the needs and interests of children and future requirements of the society.

The most useful and worthwhile experiments, according to the Ministry of Education, U.P. (6) are those that aim at (a) providing a system of vocational guidance, (b) enriching the contents and methods of education, and (c) finding out quicker, economical and easier means of spreading literacy among the masses.

Educational research to be worthwhile and effective, however, demands careful planning based on a correct understanding of the needs of the present and the future. It cannot be confined only to the pooling of the efforts of individual enthusiasts, but requires the establishment of a central and well equipped institution maintained by the Government, like the Scottish Council for Research, the Federal Bureau of Education, U.S.A., the Australian Council of Research, or the Division of Educational Tests and Measurements of the Wisconsin State Department of Public Instruction. This Council should, in controlled conditions, carry out experiments and research, for "haphazard experimentation with insufficient, inadequate and ill-assorted data, and without proper guidance would not only be useless but positively harmful." (6) The establishment of an Institute of Education at Delhi, and that of a Bureau of Psychological Research at Allahabad are happy auguries. When researches in technology, agriculture, silviculture, etc., could claim the attention of the Government, in the form of establishment of Hartcourt

(5) & (6). Ministry of Education, U.P. 'One Year of Educational Effort, 1947.'
Butler Technological Institute, Cawnpore (1921), Imperial Agricultural Research Institute, Delhi (1905), Forest Research Institute, Dehra Dun (1905), etc., there seems no reason why educational research should continue to receive step-motherly treatment by the Government.

In foreign countries, voluntary organisations have stimulated and organised research and discussion of results; for instance: U.S.A. has, among many others, the National Society for the Study of Education, the Educational Research Association, and the National Society of College Teachers of Education. In India no such organisation exists for educational research, although there are several that carry on research in various branches of science and arts, e.g., the Benares Mathematical Society, Benares (1918), the Indian Academy of Sciences, Bangalore (1934), the Indian Science Congress Association, Calcutta (1914), the Anthropological Society of Bombay (1886), etc.

Educational research has been financed in Europe and America by individual contributors and by foundations like the Russell Sage Foundation in the U.S.A., the Carnegie Trust for Universities of Scotland, Sir Richard Stapely Trust and Joseph Rowntree Trust in England, but in India, educational research has not been financed by either individuals or by organisations and foundations. There is the Indian Research Fund Association, but it finances research only in medicine. Educational research cannot make much headway in this country until endowments are made for it specially. Several other foundations, although expending most of their resources along other lines, should devote part of their funds to educational research.

Co-operation in this matter should also be extended by other agencies: e.g., Central and Provincial Governments, local bodies, publishers and educational conferences should take the necessary steps for the publication of research, and educational authorities and leaders should
Various organisations, Government and voluntary, should undertake to collect, prepare and publish periodical summaries and bibliographies of recent and current educational research. The results should be presented in a form which may admit of direct application to Indian schools. Machinery should be devised for the exchange of notes and observations with foreign countries and societies, and for promoting understanding between Indian and non-Indian educational interests. Well-equipped and up-to-date libraries containing all the standard works, recent literature and essential works of reference, statistical tables, etc., should be established in important towns.

Research organisations should formulate problems requiring investigation, and should entrust these to persons able and willing to assist. Individual investigators should be subsidised, and special facilities and expert advice should be available for societies undertaking research. Various research organisations might have a common executive body which, among other things, should strive to secure adequate grants for educational research. Besides co-ordinating research done by individuals and organisations with the object of preventing duplication and overlapping of work, the central executive body should also enlist the co-operation of different educational bodies for the supply of necessary data.

The rapid progress made by Europe and America in educational research has been due to the establishment of Bureaus or Departments of Educational Research by colleges, universities, and other educational institutions, to the institution of higher degrees in Education, and to the elevation of Departments of Education into Faculties of Education in the western universities. With few exceptions, Indian universities have not so far realised the urgent need of research in this important subject. Even those universities which have provision for educational research have produced very little.
end of Iui, 1948, viz: Agra, Aligarh, Allahabad, Amhara, Annamalai, Benares, Bombay, Calcutta, Delhi, East Punjab, Lucknow, Madras, Lyceum, Nagpur, Comilla, Patna, Rajputana, Sauger, Travancore and Utkal. Only eight of these award the Master's Degree in Education. Lucknow has created a similar degree designated the degree of Bachelor of Educational Science. (Benares has started M.Ed. from 1948-49 session).

The table given on pages 129-30 shows in detail the facilities for research provided by different Indian universities. From the table we find that all the Indian universities which have arrangements for higher degrees in Education agree upon one thing at least, viz; the question of nomenclature, i.e., M.Ed. The only exception is the Lucknow University. The duration of the course is one academic year. But here again Allahabad University is the solitary exception. (From reliable sources it is learnt that from 1948-49 session it would be a one-year course instead of a two-years one).

The award of a Master's Degree after a single year's course, as most of these universities are doing at present, is objectionable. In general education, and in all professional studies, except Teaching, no degree is granted, as a rule, after less than two years' work. There is, therefore, no reason why an exception should be made in this case. It is doubtful whether the courses prescribed by the universities awarding the M.Ed. degree on the basis of a written examination can be adequately covered in one academic year, and it is extremely difficult, if not impossible, to complete a respectable piece of research for the above degree in one year. Lack of material, of proper guidance, and of co-operation by teachers and educational institutions are additional difficulties.

All these universities have laid down a post-graduate degree or diploma in Teaching as the minimum qualification for admission to M.Ed. Aligarh and Nagpur universities, however, restrict admission only to B.T.'s who are
PASSING AND
CLASSIFICATION.

I Div. 80% II
Div. 70%, III
Div. 60%.

Remarks.

Thesis under
the guidance
of the Dept.
of Edu. (400
marks) & Viva
Voce (100
marks)

The papers &
Viva carry 100
marks each.

Minimum Pass
33 % aggregate.

M.Ed. B.Ed. or
(47-48) L.T. or
Eqvt. 2 Yrs.
Research.

Examination.
Ph.D. 1. Philosophy of Edu including
Dissertation. Psychology (General, Educational & Contempo-
Development of Edu Ideas. 2. Psycholo-
gional Theories). 3. Exptal
lieu of 3rd year Psychological Theories. 4. Exptal &
4th papers Education. 4. Educational Organis-
in the Final. (Comparative) & Viva Voce.

FINAL: 1. Advanced Psy. 2. 3. Two sub-
jects from a list of eleven. 4.

Essay or Dissertation. & Viva Voce.

Thesis.

Ph.D. M.Ed.
(48-49) L.T. or
Eqvt. 2 Yrs.
Research.

Under the gui-
doctor recognized
ance of a tut-
tor recognized
by the Varis-
ty.

D.Phil. M.Ed.
(2:6) 2 Yrs.
Research.

Do. 2 yrs. standing.

M.Ed. Do.

1 Yr. Do.

M.Ed. Do.

2 Yrs. Do.

B.Ed. L.T. or
Sc. Eqvt. 1 Yr.
Research.

Examination.
Ph.D. 1. Psychological Foundations of the
Methods of Education. 2. Normal
Psychology as applied to Education. 3. Adv.
Educational Psychology. 4. One ex-
from a list of five. 5. Lab
work in Exptal Psy, Mental Testing
& Educational Measurements.

Master's Degree with B.Ed. Science of the University.
B.Ed.  B.T. or Eqv. I 1 Yr. Examination  Part I. 1. Principles of Education. Information not seen at Andhra. and
or II div. 2. Practice of Education. 3 & 4. Research. Two subjects to be taken from a list of six.
C. Ed. with Dip or C.T. Part II. Thesis: research in one of the subjects offered for Pt.I.

M.Ed.  B.T. or Eqv. 1 Yr. Examination  1. Experimental Psychology with emphasis on Experimental Education.
Research & 2. Educational Organisation and Administration. 3. History of Education. 4. Six current problems in Indian Education. & THESIS.

Min. pass 50% in each of any two of the papers and 35% in the remaining.
Each paper carries 100 marks.
Time allowed is three hours for each paper.

B.Ed.  B.T. or Eqv. 1 Yr. Examination  Part I. 1. General Theory of Education and Educational Sociology. 2. History of Educational Ideas. 3. Methodology of one High School Subject. 4 & 5. 40 per cent in Special Subjects: Two subjects to be chosen from a list of six.

I Div. 60%. II Div. 50%. III Div. 40% in each. Each paper carries 100 marks.

7. (a) Investigation and (b) Practical Teaching.
of two years' standing. The teaching profession has already
gained notoriety as "the refuge of failures from all other
lines"(7) To maintain a high level of research, only
persons of unquestionable credentials, e.g., double First
Class or at least single First Class trained graduates
should be admitted to M.Ed. Besides a careful consideration
of the school and college record of each candidate for
admission, tests of various kinds such as would assess
intelligence, aptitudes, and power of reasoning, organizing
and expressing ideas, might be given. Candidates should also
be interviewed for discovering prominent research traits.(8)

It is interesting to note that in the beginning, most of the universities required a thesis in partial or
complete fulfilment of the conditions laid down for M.Ed.
degree, but gradually the thesis has come to be replaced
either completely by a written examination, or has taken the
form of a dissertation in lieu of one or two papers. This
appears to be due partly to the incapacity of the majority
of our graduates to pursue advanced research, and partly to
the inadequate equipment of our training colleges and Depts.
of Education in respect of research journals, books and
expert guidance.

The principal subjects prescribed for M.Ed.
degree by the majority of Indian Universities are :

(i) Philosophy of Education (in all except Madras),
(ii) Psychology of Education (Osmania and Nagpur include
this under Theory or Principles of Education paper),
(iii) Current educational problems, and
(iv) History of Education (in all except Nagpur).

It would be a distinct improvement if the
course were divided into two parts:

Part I: WRITTEN EXAMINATION - Four Papers:

Paper I. Philosophy and Sociology of Education,

(7). Memorandum submitted by a witness before Sadler
Commission, Volume X. page 321.
Part II. THESIS demanding intensive study of and research in, one of the subjects offered for Part I, and VIVA VOX.

The minimum period of time should be two academic years, the first session being devoted to the study of prescribed and recommended texts and the second exclusively to research.

It would not be desirable to have uniform courses and examination requirements for the M.Ed. degree in all universities. It would be a distinct advantage if the universities experimented with different combinations of subjects with varying degree of richness of subject-matter. Periodic stock-taking and pooling of experiences at Educational Conferences and in other forums like the Inter-University Board and Central Advisory Board of Education would result in the steady improvement of courses and examination requirements. Nevertheless, it is extremely desirable to have comparable standards of qualifying for the lower or higher research degrees as well as other degrees in Education. It is easily possible for the Indian universities to agree upon certain common percentages of marks for passing and classification, e.g., 40% for passing and 50 and 60 percent for the Second and First Classes respectively.

As has been remarked earlier, the output of research in India is negligible. Educational research done by academic psychologists is frequently of doubtful value because these researchers are not in touch with class-room situations and situations in the home. They do not seek and obtain in adequate measure the co-operation of parents and teachers. And parents and teachers who are in daily touch with children are unfortunately all too often interested in research.
ful and valid. It is, therefore, necessary that early steps should be taken to acquaint them with this line of work.

The methods of investigation so far followed here in India have been mainly (i) critical analysis and reorganisation of data available in existing literature on education, (ii) the questionnaire and (iii) the interview methods. In other countries, the methods of investigation are numerous, many of which can be usefully employed here. A list of some useful methods, other than the questionnaire and the interview is given below. This list is based on twelve authorities - Kelley, Withers, Cox, Schluter, Crawford, Good, Alexander, Almack, Mc Call, Monroe, Haggerty and Bixler.

1. Documentry: (a) Historical, (b) Legal, (c) Institutional, records and reports, (d) State records and reports, (e) Catalogues, and (f) courses of Study.
2. Rating Scales: (a) Graphic, (b) Order of merit, (c) Man-to-man comparison, (d) Scale sample comparison, (e) Range of values and (f) Score card.
3. Description and analysis based on (a) Uncontrolled observation, (b) Controlled observation and (c) Verbal analysis.
4. Case method: (a) Individual history, and (b) Institutional examination.
5. Experimental: (a) Laboratory, (b) Class-room, (c) Groups.
6. Bases for equation of groups: (a) Random selection, (b) General intelligence, and (c) Status in experimental traits.
7. Mathematical formulae.

SUMMARY: In consonance with its policy, aims and ideals of education in India, the foreign Government did not encourage research in general and educational research in particular. This is evident from the thirty or forty years' gap between

the establishment of post-graduate training colleges and the institution of M.Ed. degree by them. Such indifference to educational research in India has greatly damaged educational efficiency in general. Changed conditions in India demand immediate attention to this problem. Arm-chair methods are no longer countenanced by science, which stresses only the first hand study of each problem in its natural setting. There are a number of problems in every field of educational activity which await immediate and thorough research.

Educational research in educationally advanced countries does not flourish only because of official support but because private organisations and universities have also actively encouraged it. In India, with the exception of U.P. which has established a Research Laboratory at Allahabad, and the Central Government, which has established the Institute of Education at Delhi, no provincial governments have become alive to the urgency and importance of this problem. No wonder then that individual enterprise and private organisations are slow in emergence. The universities of the India Dominion that have facilities for M.Ed. degree number only, viz. - Aligarh, Allahabad, Andhra, Bombay, Benares, Mad Nagpur, Osmania and Patna, and for B.Ed.Sc., Lucknow only although all these universities can admit students for Ph.D in Education, yet hardly any work has been done for Doctor degrees in Education.

The M.Ed., is purely a research degree at only three universities, whereas it is awarded after a written examination by most of the other universities. It is highly desirable that all universities should raise their Departments of Education to Faculty of Education, and make adequate provision for higher degree in Education and for educational research. The establishment of a Central Research Council, like the Scottish Research Council, is long overdue, and its formation would go a long way to stimulate research in Indian universities.