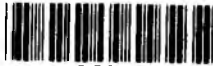


**REPORT
OF THE
REVIEW COMMITTEE
ON EDUCATION**

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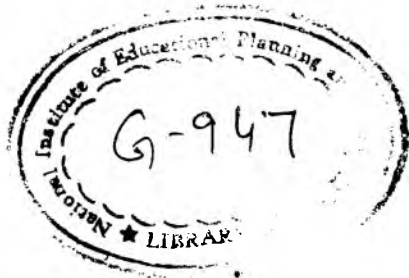
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C O N T E N T S

	PAGE
<i>Forreword</i>	vii
1. INTRODUCTION	1
Statement of the Problem	1
Historical Background	2
Appointment of the Committee	10
2. POSTGRADUATE COURSES IN EDUCATION IN INDIAN AND IN SOME SELECTED FOREIGN UNIVERSITIES	14
Courses	14
Entrance Qualifications	14
Duration	15
Content of Courses	16
Examinations	17
Qualifications of Teachers	18
Library Facilities	19
Teacher-Pupil Ratio	19
Research in Education	19
Research Programme in Foreign Universities	21
3. POSTGRADUATE TEACHING IN EDUCATION	23
Admission Requirements	28
Teaching	31
Standards	32
Duration of Courses	33
Dissertation	34
Evaluation	35

					PAGE
4.	RESEARCH IN EDUCATION	...	...	...	37
	Research Worker and His Training	...	...	...	39
	Selection of Research Workers	...	...	...	41
	Research Instruments	...	...	...	43
	Finances	...	...	...	43
	Research Tradition	...	...	...	44
	Evaluation of Research	...	...	...	45
5.	STAFF AND FACILITIES	...	...	...	47
	Teaching Staff	...	...	...	47
	Equipment and other Facilities	...	...	...	50
6.	SUMMARY OF OBSERVATIONS AND RECOMMENDATIONS	...	...	...	53
Appendix	I	Number of University Teaching Departments and Colleges in Education (Teacher's Training) and their intake capacity	...	...	59
Appendix	II	Enrolment by Stages of Instruction	...	...	60
Appendix	III	Proportion of enrolment in Education to total enrolment in universities and colleges including intermediate and pre-university students	...	...	61
Appendix	IV	Staff-student ratio excluding Diploma and Certificate students	...	...	62
Appendix	V	Analysis of Examination Results	...	...	63
Appendix	VI	M.Ed. Syllabus (as recommended by the Chandigarh Conference)	...	...	64
Appendix	VII	M. Ed. Syllabus (as recommended by the Poona Conference)	...	...	66
Appendix	VIII	Content of Courses at M.Ed./M.A. (Ed.) Level	...	...	68

			PAGE
Appendix	IX	Titles of Optional Courses	70
Appendix	X	Pattern of Compulsory and Optional Courses (M.Ed.)	73
Appendix	XI	Specifications Prescribed for Master's Thesis in Education	75
Appendix	XII	Specifications Prescribed for Ph. D. Thesis in Education	84
Appendix	XIII	Questionnaire on Teacher Education at the Postgraduate level	89
Appendix	XIV	Summary of Qualifications of Applicants for Admission to the M.Ed. Class	93

FOREWORD

The Review Committee on Education was appointed by the University Grants Commission in September, 1960 to examine the standards of teaching and research in the departments of Education in Indian universities and to make recommendations in regard to the manner in which adequate standards could be maintained by them. The committee consisted of the following :

1. Prof. K. G. Saiyidain ... *Chairman*
Formerly Secretary & Educational
Adviser, Ministry of Education,
Govt. of India.
2. Prof. T. K. N. Menon ... *Member*
Dean, Faculty of Education,
Delhi University.
3. Dr. Salamatullah ... „
Principal,
Teachers' Training College,
Jamia Millia Islamia,
New Delhi.
4. Dr. A. Mujib ... „
Professor of Education,
Aligarh Muslim University.
5. Shri K. L. Joshi ... „
Secretary,
University Grants Commission.
6. Dr. P. J. Philip ... *Member-Secretary*
Joint Secretary,
University Grants Commission.

The Commission is most grateful to the chairman and members of the committee for their work and valuable assistance in undertaking this review and assessment.

The report examines a number of important questions relating to postgraduate courses in Education and stresses the need to formulate well-defined objectives in this regard. I have no doubt that it will be of real value in the advancement of teaching and research in this field.

New Delhi
28th January, 1966.

D. S. KOTHARI
Chairman
University Grants Commission

INTRODUCTION

I. STATEMENT OF THE PROBLEM

Education like any other learned profession requires basically careful and intensive preparation—more so really than any other highly technical and skilled profession like medicine and engineering because it has to deal not merely with the bodies of individuals or dead matter or energy but also with the mind and soul of human beings. People in our country have, however, been slow and hesitant to recognise the full importance and complexity of Education as a profession. While its basic significance as a human activity has been conceded and traditionally the *guru* was held in high esteem, the need for professional preparation in this field is a matter of comparatively recent realisation. Moreover, the vital relevance of Education to national and social development is still not adequately recognised by many people.

Emphasising the importance of Education as a subject of study in the university, the Radhakrishnan Commission pointed out: “Education as a study at the university level is peculiar in this respect, that in whichever direction it is studied to an advanced level, the study tends to become something other than Education, e.g. it turns into a study of philosophy or psychology or history or sociology. While this fact makes it easy for the pedantically minded to deny that Education is a real university study, it remains true that Education is an essential focal point for the various studies and skills necessary for the teachers,”* and one may add that on this account it acquires special academic value.

There is at present a certain lack of agreement in regard to the principles and practices incorporated in the programmes of study offered by various institutions in this field. The courses prescribed reveal considerable variations in regard to goals as well as the means for achieving them. Practices relating to admission, choice of the curriculum and type of research required of the students lack proper co-ordination. Such conditions make it difficult for various training institutions and departments of Education to make a real contribution to educational thinking and planning in the country. It has, therefore, become necessary to survey the existing situation with a view to making suitable recommendations for streamlining the education of teachers.

*Report of the University Education Commission Vol. 1 1948-49 p. 212.

II. HISTORICAL BACKGROUND

1. *Growth of Teacher Training Institutions*

It is not necessary to attempt here a comprehensive survey of the growth of teacher training institutions in the country. Much of the ground has already been covered in books like the *History of Education in India** and *Reports on the Progress of Education in India, 1937-1947, 1947-1952* etc. What follows in this chapter merely highlights some of the important landmarks in the history of teacher education.

The history of teacher education in modern India begins with the Wood's Education Despatch of 1854. The despatch stressed the need for "the establishment, with as little delay as possible, of training schools and classes for masters in each Presidency in India." Following this recommendation, a number of such institutions were started and developed during the latter half of the 19th century. It is interesting to note that the first training institutions were all started under the management of government *e.g.*, the Government Normal School, Madras (1856); the Prantiya Shikshan Mahavidyalaya, Jabalpur (1889); the Government Training College, Rajamundhry (1894); the Secondary College, Bombay (1906) and the David Hare Training College, Calcutta (1908).

There was a marked increase in the provision for teacher training as a result of the Government Resolution on Education Policy of 1913 which stated that "eventually under the modern system of education no teacher should be allowed to teach without a certificate that he is qualified to do so". The Calcutta University Commission also emphasised the need of trained teachers in the country and suggested the creation of departments of Education in the Universities of Calcutta and Dacca.

During the period 1910-50 teaching departments/faculties of Education were started at the Universities of Aligarh, Allahabad, Baroda, Gauhati and Madras. A number of training colleges, some of them with provision for training at the M.Ed. level, were also established during the period *e.g.*, Teacher's Training College, Varanasi (1918), Radha Nath Training College, Cuttack (1923); University College of Education, Hyderabad (1929); Meston Training College, Madras (1937); S.T. College, Belgaum (1939); Vidya Bhawan G.S. Teacher's Training College, Udaipur (1942); Government Training College, Khandwa (1946); Government Training College, Jullundur (1947); Women's Training College Dyalbagh, Agra (1947); Teacher's College, Mysore (1947); Central Institute of Education,

*Nurullah and Naik.

Delhi (1947); Postgraduate Basic Training College, Dewas (1949) etc.*

There has been considerable expansion of facilities for teacher training in the country after independence. The number of training colleges for various levels stood at 36 in 1950-51, 75 in 1955-56 and 108 in 1958-59. Their total intake capacity increased from 3490 in 1950-51 to 13779 in 1958-59, almost four-fold. During the same period, postgraduate and research enrolment went up from 357 to 843, i.e. by 2.36 times. The proportion of students in training colleges and faculties of Education to the total student population in the universities and colleges increased from 1 per cent in 1950-51 to 2 per cent in 1962-63 which means that—leaving aside the question of quality—more and more students are being drawn into the teaching profession. As a result of this expansion the staff-student ratio declined from 1:6.5 in 1950-51 to 1:8.9 in 1958-59. (For details of enrolment, number of training colleges, staff-student ratio, examination results etc., please see Appendices I-V).

This brief historical account of the growth of teacher education in the country will not be complete without a review of the earlier attempts made by various agencies to study the basic problems and issues which confront training colleges. Special mention may be made of the work of the University Education Commission, the Secondary Education Commission, the Chandigarh Conference of the Association of Training Colleges in India, the Poona Conference of Teacher Educators, and of the Study Team of the Committee on Plan Projects (COPP) of the Planning Commission.

2. *University Education Commission—1948-49*

It may be stated here that the University Education Commission did not make a comprehensive survey of the various programmes for teacher education in the country and the courses offered by the universities and training colleges. On an examination of the available information relating to teacher training institutions and departments, the Commission observed that “they vary very greatly in efficiency from one university to another. The best of them succeed in interesting their students, in giving them a blend of school practice under satisfactory conditions and of intellectual content adequate to make the students think about both the problems they confront in school practice and the wider philosophic and sociological implications of their profession. In the worst of them the school practice is completely insufficient and defective, while the theory is vague and unrelated to actual conditions”.** We have come across no definite evidence that this situation has undergone any substantial change.

*Directory of Institutions for Higher Education 1963, Ministry of Education.

**Report of the University Education Commission, Vol. I, 1948-49, pp. 211-12.

An important recommendation made by the Commission was that equal weight should be given to the theory and practice of Education. The Commission drew attention to the fact that practice was neglected in some institutions and due weight was not given to it in assessing the students' performance. The training colleges do not have an adequate number of collaborating schools for the practical training of the teachers. The Commission suggested that if the Government stipulates in the grant-in-aid code that the schools should extend necessary facilities to the training colleges for practical work such difficulties could be partially overcome.

The Commission recommended that it should be a condition of recognition of training colleges and training departments that at least 50 per cent of the staff should have had some experience of teaching in a school. Experience of teaching in a school is necessary in order that the teachers may gain first-hand knowledge of school practices and bring into the subject-matter of their lectures an intimate knowledge of conditions in schools.

The main defect which the Commission found in the content of the theory of Education was that in some institutions it was completely dissociated from realistic conditions. The theory of Education in order to be real and purposeful must be "a living experience" to be shared by the students, and not merely a matter of a given number of lectures to be learned and memorised by them without any idea of application to local circumstances.

Coming to the problems of research in Education, the Commission stated that every university training department should undertake the work of guiding beginners in the methodology of educational research, even if the results were not impressive. While an M. Ed. student could not be expected to produce an original work of high quality, he must have some idea of the techniques of research. For this purpose, every student should teach for a few years before taking the Master's degree in the subject. The Commission also stressed the importance of professors and lecturers in Education engaging in original research work which should be properly co-ordinated and planned on an inter-university basis.

3. *Secondary Education Commission—1952-53*

The Secondary Education Commission devoted special attention to the problem of teacher education in the country, as the quality of secondary education, with which it was concerned, could not be raised adequately without improving the quality of the teaching personnel. The Commission found the same deficiencies in the training institutions as were noted

by the University Education Commission. Firstly, it observed that there were considerable variations in the teacher-training programmes in different states. Secondly, the number of training institutions was not adequate to meet the needs of the country in respect of trained teachers. Thirdly, a sufficient number of candidates were not attracted to join the training colleges and the intellectual calibre of the recruits was generally of a low order.

One of the important recommendations made by the Commission was that institutions for graduate teacher-training should be recognised by and affiliated to universities and the diplomas and degrees should be conferred by them and not by the state departments of Education or by *ad hoc* bodies. It is not desirable to have two standards of training for the same purpose, one for the degree awarded by the universities and the other for the diploma given by the state departments of Education. As teacher-training is a postgraduate course it should become the concern of universities.

The Commission was of the view that the main reason for the inability of training colleges to attract good students was the low salaries and the unsatisfactory service conditions of teachers in the secondary schools and colleges. Even in states where a sufficient number of candidates were available, it was found that they seldom possessed high qualifications. In this connection, the Commission suggested that admission should be given on the basis of carefully administered tests and interviews so that only those candidates were admitted who showed promise of becoming successful teachers. It also recommended that no fees should be charged by the training colleges and that the state should give suitable stipends to the students during the course of their training. Teachers who are already in service should be given their normal salary during the period of training.

The Commission recommended the following minimum qualifications for recruitment of teachers to graduate training institutions.

- (i) *Academic Qualification* :—An Honours or Master's degree, or a first class B.A. or B.Sc. degree in the subject of specialization.
- (ii) *Professional qualification* :—A Master of Education degree with at least three years' teaching experience, or an L.T. or B.T. degree with five years' service as an inspector or headmaster of schools.

The Commission further suggested a free exchange between teachers of training colleges and selected headmasters and inspectors of schools

for varying periods of three to five years. This would provide an opportunity for the educational administrators to have an idea of the actual conditions of school life and the teachers to realise how the training received by them is actually put into action.

As part of a long-term programme, the Commission recommended extension of the graduate teacher training programme to two academic years. It was, however, realised that such an extension would not be immediately feasible in view of financial and other difficulties. So long as the duration of the training course continued to be short, it would be desirable to select students some months in advance to give them an opportunity to study some background material during the waiting period. During the year of training, the student should be trained in the methods of teaching at least two school subjects. Graduates with a combination of subjects which are not related to the school curriculum should be discouraged from joining the training course.

The Commission also stressed the need to arrange refresher courses, short intensive courses in special subjects, practical training in workshops, seminars and professional conferences as a normal part of the work of the trainees. In the Commission's opinion the training colleges were best organised as residential institutions to enable the organisation of co-curricular activities in a more effective way. Further, every training college should have a demonstration school attached to it. The scope of practice training should be so broadened as to include not only teaching, observation, demonstration and criticism of lessons but also such programmes as construction and demonstration of scholastic tests, organisation of supervised study and students' societies, library work and the maintenance of cumulative records.

In regard to the postgraduate course in Education, the Commission stressed the need for having a clear conception of the aims and objectives of training at the higher level. The following objectives were suggested for this course :

1. To impart through comparative studies ideas regarding modern methods of education followed in different countries.
2. To cultivate aptitude for research so that experiments on new methods and techniques of education suited to the needs of the country and the community could be undertaken.

3. To afford opportunities for specialization in one or other of the branches of study pertaining to

- (a) curricula of school studies,
- (b) craft-centred education,
- (c) co-curricular activities, etc.

4. To train teachers for higher positions in the profession.

The Commission also recommended that for the Master's degree in Education admission should normally be restricted to those who have to their credit a minimum of three years of teaching in a school.

The Commission stressed that the training colleges should assume a role of leadership in the task of educational reconstruction. The staff of the colleges should also be capable of doing research in the various aspects of pedagogy. Research work of a high quality requires a close relationship between the theory and practice of Education.

4. *The Chandigarh Conference of the Association of Training Colleges in India*

In December, 1958, the Association of Training Colleges convened a three-day conference at Chandigarh to consider the re-organization of the M.Ed. course. The Conference deliberated upon a number of issues relating to the objectives, duration and content of the course, part-time evening courses, admission requirements, staff-student ratio etc.

The Conference agreed that the M. Ed. course should provide or prepare personnel in the fields of :

- (1) Teacher Education,
- (2) Psychological Services, and
- (3) Educational Administration.

This may be done through

- (i) closer study of fundamental basic subjects,
- (ii) research investigations, and
- (iii) specialization in subjects allied to the chosen field.

The Conference underlined the necessity of careful selection of candidates for the M. Ed. course. The Conference recommended that they should

have had at least 3 years of experience including at least one year after completing the B. Ed. course. The number of students admitted should also be related to the number of members of the staff qualified to give guidance. The average number of students per teacher should not exceed two. The universities should not permit colleges to start the M. Ed. course unless they have the necessary staff, library and other facilities.

The Conference was opposed to the organization of part-time courses leading to the M. Ed. degree as these did not give the student sufficient scope to do justice to the course and were responsible for the falling of standards in some institutions. Vacation courses spread over two or three years, comprising a minimum of 24 weeks' full-time attendance could however be provided.

The Conference stressed the need for having some uniformity in regard to the qualifying marks for the award of the M. Ed. degree. It recommended that the marks for a pass at the M. Ed. examination should be 40 per cent in each theory paper and the dissertation and 50 per cent in the aggregate. It was desirable to discontinue the present practice obtaining in many universities of awarding three divisions or classes on the result of the examination. It was preferable to award only a 'distinction' and a 'pass'. 65 per cent was recommended as the minimum qualifying marks for 'distinction'.

The Conference endorsed the view of the Secondary Education Commission that while it was desirable to have a two-year course for the M. Ed., for a variety of reasons it may not be practicable to introduce such a course for some time to come.

The Conference suggested four papers for compulsory study and three broad fields of specialization for the M. Ed. course, details of which are given in Appendix VI of this report.

5. The Poona Conference of Teacher Educators

The Poona Conference was convened for the specific purpose of exchanging views between Dr. R. Freeman Butts, Professor of Education at the Teacher's College, Columbia University, and teachers of training colleges in India.

The Conference devoted itself primarily to a consideration of the contents, methods of instruction and duration of the M. Ed. course. The general feeling was that for some time to come, until the course came to be

recognized as a specialised preparation for educational administration, teacher education, psychological services etc., and unless those obtaining the M. Ed. degree were adequately remunerated, it might not be feasible to increase the duration of the course. The Conference considered the M. Ed. course as organized in some universities as nothing more than an extended edition of the B. Ed. course. In many places the courses were too abstract, theoretical and unrelated to the practical problems and needs of education in the country. It was, therefore, necessary to revise the courses in order to relate them properly to our actual needs and circumstances. The scheme of papers recommended by the conference for the M. Ed. course is given in Appendix VII.

6. *Study Team for Selected Educational Schemes of the Planning Commission*

The Committee on Plan Projects of the Planning Commission set up a study team for selected educational schemes in May, 1961 and entrusted to it the detailed examination, *inter alia*, of the programme relating to teacher training at various levels in the country. The team assessed the working of 1358 training schools and 216 training colleges which were in existence in the country in 1960-61. They found many deficiencies in the training programmes, particularly in respect of location, physical facilities, nomenclature and financial position and made important recommendations for improvement of the standards of these institutions.

The study team stressed the need for evolving suitable criteria for the selection of trainees. It suggested that the following could be taken into consideration :

- (i) Past achievements and academic records of the candidates.
- (ii) Results obtained by the candidates in aptitude tests.
- (iii) Interview by a selection committee.

The team generally commended the Kuruksetra experiment and welcomed the establishment of four regional colleges by the Ministry of Education and the National Council of Educational Research & Training for the training of teachers of vocational subjects.

Among the measures for strengthening the training colleges, the team recommended the setting up of area training organizations which would integrate and supervise the training of teachers at all levels in different areas with the assistance of an advisory council, the publication of suitable text-

books in Indian languages on a national scale, the organization of an in-service training programme through evening, vacation and correspondence courses and the setting up of suitable machinery to involve universities and university colleges of Education in assuming a role of leadership in the field of Education.

In order to encourage research of high value, the team recommended that facilities for the purpose should be available not only to those who hold a B. Ed. degree but also to others who hold a good degree in Humanities or Science so that the best minds may be attracted to undertaking research in Education. For the latter, a course of somewhat longer duration was considered desirable.

III. APPOINTMENT OF THE COMMITTEE

One of the statutory functions of the University Grants Commission is "to take, in consultation with the universities or other bodies concerned, all such steps as it may think fit for the promotion and co-ordination of university education and for the determination and maintenance of the standards of teaching, examination and research in the universities".

While considering the report of the visiting committee appointed by the University Grants Commission to examine the development of post-graduate studies in the University College of Education of the Osmania University, the Commission resolved that the whole question of the duration, contents, staff, admission qualifications etc. of the postgraduate courses in Education be further examined.

This led to the appointment by the University Grants Commission of a Committee consisting of the following members to examine the standards of teaching and research in the departments of Education in Indian universities and to make recommendations in regard to the manner in which adequate standards may be maintained.

1. Prof. N.K. Sidhanta, .. *Chairman*
Vice-Chancellor,
Delhi University.
2. Dr. E.A. Pires,
Director, Central Institute of Education,
Delhi.
3. Prof. T.K.N. Menon,
Dean, Faculty of Education,
Delhi University.

4. Dr. Salamatullah,
Principal,
Teachers' College,
Jamia Millia Islamia, New Delhi
5. Dr. P.J. Philip,
Development Officer,
University Grants Commission .. *Member-Secretary*

Following the sad demise of Prof. N.K. Sidhanta in December, 1961 and on Dr. Pires leaving Delhi for taking up a post in Manila, the Committee was re-constituted as under :

1. Prof. K.G. Saiyidain,
Educational Adviser,
Government of Jammu and Kashmir. .. *Chairman*
2. Prof. T.K.N. Menon,
Dean, Faculty of Education,
Delhi University.
3. Dr. Salamatullah,
Principal,
Teachers' College,
Jamia Millia Islamia, New Delhi.
4. Dr. A. Mujib,
Professor of Education,
Aligarh Muslim University.
5. Shri K.L. Joshi,
Chief, Education Division,
Planning Commission.
6. Dr. P.J. Philip,
Development Officer,
University Grants Commission. .. *Member-Secretary*

The Committee had wide terms of reference and was free to determine its programme and rules of procedure. The Committee was specially asked to go into all the details:

1. Determine different types of courses which should be offered by the universities.
2. Work out objectives of different types of courses, especially of studies at the Master's degree level.
3. Recommend to the universities schemes of papers for each type of course with a view to providing specialization.
4. Recommend teaching methods suitable for teaching various parts of the syllabus and to lay down guiding principles for the conduct of examinations.
5. Lay down the entrance qualifications of students for the various courses.
6. Recommend duration of the course.
7. Lay down minimum standards for passing the examinations and grouping of question papers for the purposes of examination.
8. Indicate any other steps that may be necessary to achieve uniform and high standards, such as qualifications of teachers etc.

The Committee held its first meeting under the chairmanship of Prof. Sidhanta on 19th December, 1960 at Delhi and drew up a questionnaire to be addressed to Indian and some selected foreign universities for collection of information regarding entrance qualifications, content and duration of courses, available library facilities etc., at the postgraduate level. At its second meeting held at Srinagar on 15/16th June, 1961 the Committee considered the replies received from the universities and formulated its main recommendations regarding postgraduate courses in Education, qualifications of staff, examinations etc. These recommendations were sent to all university departments of Education and to some selected training colleges for review and comments. The third meeting of the Committee was held on 7th September, 1962 in New Delhi. At this meeting the Committee considered the comments and suggestions received

from the universities and colleges and also examined the problems relating to standards of research. At its fourth meeting held in Bombay on 10/11th May, 1963 the Committee exchanged views with the principals and senior teachers of training colleges in Bombay and finalised its recommendations on postgraduate teaching and research in Education. The fifth and final meeting of the Committee was held on 19th August, 1963 in the office of the University Grants Commission, New Delhi to consider the draft of the report.

POSTGRADUATE COURSES IN EDUCATION IN INDIAN AND IN SOME SELECTED FOREIGN UNIVERSITIES

I. COURSES

The information available with the University Grants Commission indicates that courses in Education at the B.Ed. level are provided by the following 34 universities: Agra, Aligarh, Andhra, Annamalai, Banaras, Baroda, Bombay, Burdwan, Calcutta, Delhi, Gorakhpur, Gujarat, Jabalpur, Jammu & Kashmir, Karnatak, Kerala, Kuruksetra, Lucknow, Madras, Marathwada, Mysore, Nagpur, Osmania, Panjab, Poona, Rajasthan, Saugar, S.V. Vidyapeeth, Varanaseya Sanskrit Vishwavidyalaya, Utkal, Vikram, Sri Venkateswara, Visva-Bharati and Jamia Millia.

Facilities for teaching at the M.Ed. level exist in 28 universities as under: Agra, Aligarh, Andhra, Allahabad, Banaras, Baroda, Bombay, Calcutta, Delhi, Gorakhpur, Gujarat, Jabalpur, Karnatak, Kerala, Lucknow, Madras, Mysore, Nagpur, Osmania, Panjab, Poona, Rajasthan, Saugar, S.V. Vidyapeeth, Sri Venkateswara, Utkal, Vikram, and Jamia Millia.

Provision for doctoral studies in Education is available in the following 19 universities: Aligarh, Allahabad, Annamalai, Banaras, Baroda, Calcutta, Delhi, Gorakhpur, Gujarat, Jabalpur, Kerala, Lucknow, Madras, Mysore, Poona, Rajasthan, Saugar, Utkal and Vikram. The Universities of Agra, Bombay and Nagpur do not have any provision for regular Ph.D. work, but guidance is offered. The Panjab and Karnatak Universities also have some provision for this purpose. In all, facilities for doctoral research in Education are provided by 24 universities either at the headquarters or in their affiliated colleges or both.

It has emerged during the course of the present enquiry that a number of universities have provision for teaching at the B.Ed. or M. Ed. level in their affiliated colleges but no corresponding provision at the headquarters. The Universities of Allahabad, Kerala, Madras and Mysore have provision for teaching at the M. Ed. level but do not have any provision for the B. Ed. course at the university headquarters. Also, there are some universities which permit the opening of B.Ed./L.T. classes in affiliated Arts and Science colleges under the administrative control of the principals of the colleges concerned.

II. ENTRANCE QUALIFICATIONS

The required academic and professional qualifications for admission to M. Ed./M.A. (Ed.) in all the universities, which are running this

course, is a Bachelor's degree with B. Ed./L.T. The minimum professional experience for admission to M.Ed./M.A. (Ed.) class is one year in Karnatak, two years in Allahabad, Gujarat, Kerala, Osmania and S. V. Vidyapeeth and 3 years in Agra, Delhi, Jabalpur, Panjab, Saugar, Utkal and Vikram Universities. The Universities of Aligarh, Andhra, Banaras, Baroda, Bombay, Calcutta, Gorakhpur, Lucknow, Madras, Nagpur, Poona, Rajasthan and Sri Venkateswara have not prescribed any professional experience.

Generally speaking, our admission requirements are not as exacting as in some foreign universities particularly in regard to professional experience. In the University of Leeds, candidates for admission to the M.Ed. course are required to have obtained a graduate certificate of Education or to take an examination before being admitted to the course. In the University of Edinburgh, candidates for admission to B.Ed. (which is considered to be equivalent to M.Ed.) have to produce evidence of having attended a course of professional training and of having attained therein a satisfactory standard of proficiency or to have taught for not less than 3 years in one of the approved institutions. Similarly, in the London University candidates are required to produce a certificate in Education or teacher's certificate of the university, or to have undergone a course of training for the profession of teachers, or to possess qualifications accepted by the university as equivalent to one of the foregoing. In American universities candidates are not required to have any professional experience, but the quality of undergraduate study is taken into account and in most cases the candidates must offer an acceptable score on the graduate record examination.

III. DURATION

Duration of the full-time M.Ed. course for regular students is of one academic session at the following 21 universities : Agra, Aligarh, Allahabad, Andhra, Banaras, Delhi, Gorakhpur, Gujarat, Jabalpur, Lucknow, Madras, Mysore, Nagpur, Osmania, Panjab, Poona, Rajasthan, Saugar, Sri Venkateswara, Utkal and Vikram. In Calcutta University the full-time M.A. or M.Sc. course in Education is of two academic sessions. In Kerala University, the course is of one year but 6-12 months of research after completion of the course without attendance at college is necessary.

In the following 11 universities the duration of the course is of two academic sessions (18-20 months) of part-time or evening study: Agra, Bombay, Baroda, Gujarat, Jabalpur, Karnatak, Mysore, Poona, Saugar, Sri Venkateswara and S.V. Vidyapeeth. The number of lectures given in these universities during a session varies from one University to another.

Some foreign universities, particularly the American universities permit 'in-service' teachers to complete a limited portion of the programme through part-time evening or summer study. In the University of Leeds the M.Ed. course, if full-time, extends over not less than 2 years; if it is a part-time study, it extends over not less than 3 years. In the University of Edinburgh, the B.Ed. course is of 3 academic sessions and in the University of London the course consists of not less than 2 academic years of full-time study. In American universities the Master's degree programme takes a minimum of one academic year but a maximum of 5 years may be taken. Full-time residence programmes are provided but a limited portion of the programme may be completed through part-time evening or summer study. A year consists in some cases of two semesters and in others of 3 quarters. The universities on the quarter system require a minimum of 45 quarter hours (12 courses plus research and thesis). Those institutions on the semester system require 30 semester hours or 8 courses of longer duration.

IV. CONTENT OF COURSES

Philosophy and Sociology of Education and Advanced Educational Psychology form the common core of compulsory papers prescribed for Master's degree in Education by most of the universities. The more common among the optional papers are Educational Administration, History of Indian and/or Western Education, Comparative Education, Experimental Education and Experimental Psychology and Vocational Guidance. The course in Methodology of Educational Research is provided only by 10 of the 28 universities which have facilities for postgraduate study in Education. A point of considerable significance is that this course is not offered even as an optional paper by some of the universities which do not have any provision for it in the compulsory group of papers.

The total number of prescribed courses, both compulsory and optional, which a candidate has to offer for the Master's degree in Education varies from one university to the other. The number of prescribed courses is as high as 8 and 6 in the Universities of Lucknow and Calcutta respectively; 6 universities have 3 required courses, and in others the number varies from 4 to 5. The largest number of optional papers from which a candidate has to offer his papers is 13 in the Aligarh University; the Universities of Utkal, Lucknow and Rajasthan and Delhi follow with 10, 9 and 8 respectively.

The following 7 universities provide for the Master's degree in Education by thesis without prescribing any compulsory or optional papers: Aligarh, Banaras, Bombay, Gujarat, Panjab, Poona and Mysore. In Lucknow University candidates who have passed the former B.Ed. Sc. examination after one year of L.T. or B.T. are permitted to take two additional papers

In Madras University research has to be carried on in one of the approved institutions.

(b) *Standards of Research*

In the universities of Agra, Aligarh, Banaras, Baroda, Bombay, Calcutta, Delhi, Jabalpur, Karnatak, Madras, Nagpur, Rajasthan, Saugar and Vikram, the Ph.D. dissertation has generally to conform to a standard which may be stated as follows: "It must be a piece of research work characterised either by the discovery of new facts or by a fresh interpretation of facts or theories; in either case it should evince the candidate's capacity for critical examination and judgment. It should be a real contribution to the advancement of knowledge and should be satisfactory as regards literary presentation." In Mysore University the problem selected for Ph.D. should be significant and such as to help educational progress. The inferences drawn should be based on facts.

(c) *Evaluation Procedure*

The Ph.D. dissertation in Education is accepted in Aligarh, Allahabad, Baroda, Bombay, Banaras, Calcutta, Delhi, Jabalpur, Mysore, Poona, Rajasthan and Saugar universities if it is approved by three examiners. In Agra and Nagpur universities it must be approved by two external examiners appointed by the Academic Council of the university and in Gujarat University it has to be approved by both the internal and external referees. In the Panjab University, the Ph.D. dissertation is referred to two external examiners only. Those examiners read the dissertation as well as the report of internal examiner and satisfy themselves that the candidate is, by reason of his attainments, a fit person to receive the Ph.D. degree.

A candidate for Ph.D. degree has to take a *viva-voce* examination on his dissertation in Agra, Aligarh, Allahabad, Banaras, Baroda, Bombay, Calcutta, Delhi, Gorakhpur, Jabalpur, Lucknow, Mysore, Panjab, Vikram and Utkal universities. In Annamalai, Madras, Nagpur, Rajasthan and Saugar universities *viva-voce* examination is given at the examiner's discretion. There is no *viva-voce* test in the Gujarat and Poona universities.

X. RESEARCH PROGRAMME IN FOREIGN UNIVERSITIES

The Ph.D. course in Education offered by foreign universities shows some distinctive features which are highlighted here by way of comparison.

(i) The minimum qualification required for admission to the research course is generally a Bachelor's degree of an accredited institution, but at the time of admission the candidate's background of professional study and

Saugar universities, the minimum marks required for pass and distinction are 40% and 60% of the aggregate respectively.

Except for the universities of Andhra, Mysore and Nagpur divisions are not shown separately for course work and thesis. In Andhra University, the evaluation of the performance of a candidate in the dissertation is on a 4-point scale which is excellent, good, pass or failure. In Nagpur university the classification of the dissertation is outstanding work, *or* high class and in Mysore the classification is 'ordinary' *or* 'distinction.'

For first class a candidate should get 70% of aggregate marks in the Vikram University, 65% in Baroda, Bombay, Delhi, Gujarat, Karnatak, Osmania and Poona and 60% of aggregate in Agra, Aligarh, Allahabad, Banaras, Calcutta, Gorakhpur, Lucknow, Mysore, Nagpur, Panjab, Rajasthan, S.V. Vidyapeeth, Sri Venkateswara, Utkal, and Jamia Millia. For second class a candidate should obtain 55% of aggregate in Osmania and Karnatak, 50% in Bombay, Baroda, Gujarat, Panjab, Poona and Sri Venkateswara and 48% of aggregate in Agra, Aligarh, Allahabad, Gorakhpur, Lucknow, Rajasthan, S.V. Vidyapeeth, Utkal and Jamia Millia, 45% of aggregate in Banaras and Calcutta universities. The minimum marks for a pass are 50% of aggregate in Delhi and Mysore universities, 48% in the Jamia Millia, 45% in Nagpur and Osmania universities and between 35 to 45% of aggregate in the remaining universities. The following 9 universities insist on a minimum of 20 to 40% of marks in each paper or division: Aligarh, Baroda, Gorakhpur, Karnatak, Panjab, Poona S.V. Vidyapeeth, Sri Venkateswara and Jamia Millia.

VI. QUALIFICATIONS OF TEACHERS

In most of the universities, the minimum qualifications prescribed for postgraduate teachers of Education departments is a first or second class Master's degree in Arts, Science or Commerce plus a postgraduate degree or diploma in Education plus 3 to 10 years of teaching experience at degree college/postgraduate college/training college. In the universities of Aligarh and Lucknow the minimum qualifications have not been prescribed but only persons with foreign qualifications and teaching experience are appointed as a matter of convention. The universities of Allahabad, Banaras, Gorakhpur, Nagpur, Osmania, and Sri Venkateswara do not prescribe any professional experience for lecturers at the M.Ed. level. In the Universities of Jabalpur and Saugar lecturers do not normally teach M.Ed. classes. There are some universities *viz.*, Banaras, Baroda, Madras, Nagpur, Rajasthan and Vikram which do not insist on research qualifications or research experience in the appointments of readers or professors. In the universities of Agra, Allahabad, Andhra, Gorakhpur, Gujarat, Rajasthan and

Sri Venkateswara, there is no cadre of readers. In the universities of Gujarat, Mysore and S.V. Vidyapeeth the minimum academic qualification required of teachers is a Bachelor's degree. In addition to the usual academic and professional qualifications, lecturers in Education must have a working knowledge of Telugu for being eligible for appointment in the Andhra University. In the Jabalpur University a Reader is required to have a Bachelor's degree in Arts or Science plus a Master's degree in Education with 5 years' teaching experience or a Bachelor's degree in Education with 7 years' teaching experience. In the University of Poona teachers are divided into the following 3 categories: (a) postgraduate teachers (research) (b) postgraduate teachers (papers) (c) post-intermediate teachers. In the University of Saugar B.A., B. Eds. are eligible for appointment to readers' post and M.A., B.Eds. for appointment to the professor's posts if they have 10 to 12 years of teaching experience.

VII. LIBRARY FACILITIES

The following universities have prescribed minimum requirements for library facilities for affiliated colleges/departments of Education covering the postgraduate course in Education: Agra, Aligarh, Baroda, Calcutta, Delhi, Jabalpur, Nagpur, Poona, S.V. Vidyapeeth, Saugar and Vikram. The number of books required for a postgraduate library in Education varies from 1,000 to 10,000 in these universities. Most of the universities which have facilities for postgraduate teaching in Education at the headquarters have recurring and non-recurring budget provision for their libraries. These universities do not, however, insist on similar provision for libraries in their affiliated teacher-training colleges.

VIII. TEACHER-PUPIL RATIO

The teacher-pupil ratio varies from 1:3 to 1: 10 at the M. Ed. level and from 1:10 to 1:20 at the B.Ed. level in most of the universities. The position at the B.Ed. level is not so satisfactory in some universities, notably in Annamalai where it is 1:20.

IX. RESEARCH IN EDUCATION

(a) *Admission Qualifications*

The minimum admission qualification for a doctoral candidate is the M.Ed. degree in the following 17 universities: Agra, Annamalai, Baroda, Bombay, Gorakhpur, Gujarat, Jabalpur, Karnatak, Kerala, Madras, Mysore, Nagpur, Panjab, Poona, Rajasthan, Saugar and Utkal. The universities of Aligarh, Calcutta, Lucknow and Vikram insist on a second class at the M.Ed. examination before permitting candidates to take up research in

and thoughtful direction, and the trained persons are inadequately equipped to take up their duties with confidence and fulfil their responsibilities with competence. This is due, at least partly, to the fact that the courses of study have been designed without well-defined purposes and this had led inevitably to the production of personnel who (it may be presumed) possess a general understanding of education, but lack sufficient insight and special competence in any particular area of educational endeavour.

In the light of the foregoing considerations, the broad objectives of M.Ed. courses may be outlined as follows:

- (a) to produce competently trained personnel to staff our training colleges,
- (b) to prepare leaders of thought in the various branches of education—people who will push forward the frontiers of knowledge and contribute to the growth of the discipline through research or systematic study,
- (c) to train able and enlightened administrators who will be able to occupy positions of responsibility in educational institutions, government offices, and in supervisory services—positions held not mainly because of their administrative competence and experience but their insight into educational issues and problems,
- (d) to train psychological workers who can competently guide our youth in their personal, educational and vocational problems,
- (e) to train persons who understand the role which education should play in national life and who can provide direction and leadership in the task of national development.

This may not be a detailed and complete enumeration of the types of educational workers which the country needs now or will need in future, but for the purpose of this discussion, it is reasonably comprehensive and can serve as a good enough starting point for a discussion of the goals of the Master of Education courses in the country.

A detailed discussion of the competence required of the different classes of educational workers is outside the scope of the present report, but the categories listed are self-explanatory. The overall argument presented here is that the Master's courses in Education should be clearly defined and orientated in terms of the requirements of various categories of work which the holders of the degree may be called upon to perform.

(i) A fair number of our M.Eds. find positions in training colleges where they are required to guide the practical teaching of student teachers, lecture

or a thesis in lieu thereof to convert the B.Ed. Sc. degree into M.Ed. but no division is awarded to such candidates.

Thesis/dissertation is a compulsory requirement for Master's degree in Education in the following 22 universities: Agra, Aligarh, Allahabad, Andhra, Baroda, Delhi, Gorakhpur, Gujarat, Jabalpur, Kerala, Lucknow, Madras, Nagpur, Osmania, Panjab, Rajasthan, S.V. Vidyapeeth, Saugar, Sri Venkateswara, Utkal, Vikram and Jamia Millia. In the universities of Banaras, Bombay, Calcutta, Mysore and Poona candidates are allowed to offer one or two optional papers in lieu of the thesis. The Karnatak University does not provide for a thesis in Education at the postgraduate examination. Most of the universities have specified requirements for thesis but the specifications where they are laid down are mostly vague and incapable of objective checks. Also in a number of universities there are no rules regarding the maximum number of theses that a teacher may guide. A teacher may guide 6 or even more students in some universities.

It may be mentioned in this connection that in the Universities of Leeds and Edinburgh and in almost all American universities the Master's degree in Education is awarded only after the satisfactory completion of a course work of one or two years. Even in the University of London where the Master's degree in Education is awarded on the basis of a thesis, one or more papers related to the subject of the thesis have to be offered by the candidate.

V. EXAMINATIONS

Practice is by no means uniform in the conduct of examinations at the M.Ed. level. There is a great diversity in (i) the evaluation of thesis by internal and external examiners, (ii) holding of a *viva-voce* test on the thesis, (iii) allotment of marks for course work and thesis/dissertation, (iv) the scope and application of internal assessment and (v) classification of successful candidates.

There are wide variations in the system of classification adopted by different universities. While in most of the universities successful candidates are classified into 2 or 3 classes/divisions, in the universities of Andhra, Delhi, Jabalpur and Saugar candidates are declared to have passed *or* passed with distinction. In Andhra University a candidate is declared to have passed if he obtains not less than 40% in each written paper and not less than 50% in the aggregate of all the written papers. Those who obtain 60% in Part I and A *i.e.*, excellent in dissertation (Part II) are declared to have obtained distinction in each part separately. In the Jabalpur and

experience are carefully examined in relation to the professional objective declared by him. In addition he is required to take a series of screening or diagnostic examinations, the pattern of which varies in different universities.

(ii) In most of the universities, especially the American universities, the candidate has to take up course work of an advanced type before he is permitted to start work on an approved subject of research. The programme of course work extends over 2 to 3 years and is based on the major fields of emphasis. In American universities, candidates have also to fulfil some general research requirements such as proficiency in one or two foreign languages, bibliographic methods, statistics, research methodology etc.

(iii) The standards of the Ph.D. dissertation are well defined. The dissertation is judged on its originality, its contribution to literature and knowledge in the field and sometimes on its practical application to realistic problems in the field. The detailed specifications prescribed by most American universities include, *inter alia*, the following points:

- (a) importance and scope of problem,
- (b) validity and appropriateness of research design,
- (c) adequacy and validity of data,
- (d) quality of data interpretation,
- (e) soundness of conclusions and generalisations arrived at,
- (f) form and design of written report, and
- (g) typing and physical features of the dissertation.

(iv) The candidate for the Ph.D. degree is generally required to defend his thesis before a board of examiners and has sometimes to take a written examination after the submission of thesis as at the universities of Leeds and Edinburgh.

POSTGRADUATE TEACHING IN EDUCATION

The problems of syllabuses and courses of studies leading to the M.Ed. degree were reviewed by two previous committees which met at Chandigarh and Poona, and their reports contained several valuable suggestions for the reorganisation of the M.Ed. Syllabi. The present committee had the benefit of those reports and discussed the question in the light of the experience of some institutions which had tried to recast their syllabi according to the recommendations of these two committees. The Review Committee also had before it the valuable data collected by the office of the University Grants Commission and the Planning Commission. In a detailed survey of the courses leading to the M.Ed. degree in the 28 universities, where such provision exists, the committee found no fewer than 35 different papers being taught in various combinations of three, four or five—some compulsory and others optional. One also finds considerable differences in most other respects like requirements for admission, duration of courses, number of papers, examination practices, emphasis on different subjects, etc.

The wide variety of subjects and the differences in other respects lead one to the conclusion that while planning their syllabuses different universities had different purposes and objectives in view. In the case of some of these curricula, the goals are not very clear and in the case of others the only objective behind the combination of required and elective courses appears to be a broad acquaintance with the field of Education as a whole. These latter courses look like continuation of B.Ed. courses at a somewhat higher level. In yet other cases the combination of courses seem to have little inherent logic; tradition, availability of staff and feasibility rather than any fundamental considerations appear to have been the deciding factors in planning.

The committee felt that the rationale behind the organisation of the courses leading to the M.Ed. degree needs re-examination. The matter was discussed in some detail and it was agreed that the planning of courses for the M.Ed. degree should be based on two broad considerations: the needs of the country in respect of trained personnel in this field and the intellectual implications of Education envisaged as an academic discipline, linked up with a number of areas of human activity such as psychology, sociology, culture, etc.

While our colleges and universities are doing what they can under the circumstances in the service of education, it may be said with some justification, that the existing courses for the Master's degree in Education lack effective

Education. In the universities of Allahabad and Delhi, candidates must have a good Master's degree in Education and in Banaras Hindu University candidates must have secured at least 50% marks at the M.Ed. examination. In Bombay University, Bachelor's of Education are also eligible for admission to the Ph. D. course. The following universities permit M.A.'s to take up research in Education:

Annamalai	M.A.
Aligarh	M.A. in Psychology with at least second class
Banaras	M.A., B.Ed. with at least 50% marks
Lucknow	M.A. with at least second class
Saugar	M.A., B.Ed.

(In Lucknow University candidates are admitted provisionally and 6 months after admission to the research course an examination is held, success in which confirms the admission).

Professional experience of 7 years is prescribed in Saugar and of 5 years in Jabalpur and Mysore universities. In Aligarh, Gorakhpur and Gujarat Universities preference is given to candidates who have teaching experience. In Nagpur University candidates should have sufficient teaching experience and in the Delhi University experience of teaching or educational administration or research guidance is required.

In addition to the dissertation, candidates for the Ph.D., degree in Education have to fulfil some other requirements in the universities mentioned below.

In the universities of Aligarh, Allahabad and Lucknow a diploma or a certificate of proficiency in a foreign language (other than English) is necessary. In the University of Delhi candidates have ordinarily to reside in Delhi and they cannot accept any employment without permission and cannot join any other course. In Banaras and Aligarh Universities candidates are required to be present in the institutions for the full period of 6 or 9 terms. In Jabalpur and Saugar universities candidates have to stay at the university or its affiliated/constituent colleges for 2 academic years. In Jabalpur University this condition can be waived in exceptional cases. In Madras University the candidate has to appear for a test on the methodology of research before a board at the end of the first year of the period of work. Candidates who do not satisfy the board may be referred back for a further period of six months. In Vikram University the candidate has to pursue research at the institution for not less than 24 months with at least 200 days of attendance. In the universities of Annamalai and Madras, candidates can submit their Ph.D. thesis 3 years after the date of registration.

obvious and, unless the vicious pattern is broken somehow, it is difficult to see how any improvement can ever be expected.

Another significant fact which must be pointed out is that the M.Ed. course does not even attract the cream of the B.Eds. In many cases, students who show promise in the B.Ed. class cannot afford another year of study and are absorbed in schools as teachers and once they enter the school, it is very difficult for them to return. The average applicant in most institutions, therefore, is a second or third class graduate with a 2nd/3rd class in his B.Ed. examination. A survey of the qualifications of applicants to the M.Ed. class in three universities of U.P. shows the following picture.

These figures have been collected from 3 university departments in the Uttar Pradesh and cover a period of 3 years in one university and one year each in the other two. The universities are well established and enjoy a fair reputation for their standards.

Division	<i>Applied</i>		<i>Selected</i>	
	<i>No.</i>	<i>Per cent</i>	<i>No.</i>	<i>Per cent</i>
First Division B.A./B.Sc.	5	1.3	3	3
Second Division —do—	107	28.2	58	50
Third Division —do—	268	70.5	49	47
Total	380	100	110	100

The basic qualification indicating the general intellectual level is taken to be the B.A./B.Sc. degree and the figures include M.A.'s and M.Sc.'s also. A more detailed breakdown is given in Appendix XIV.

The same sample of applicants presents the following picture with respect to their performance at the B.Ed. theory examination:

Division	<i>Division in B.Ed. (Theory)</i>			
	<i>Applied</i>		<i>Selected</i>	
	<i>No.</i>	<i>Per cent</i>	<i>No.</i>	<i>Per cent</i>
I	8	2	8	7.3
II	144	38	68	61.8
III	228	60	34	30.9
Total	380	100	110	100

and training of psychological workers. The demand in this field is likely to increase in future years and we should be able to provide trained personnel in this area. These persons should have the necessary insight into problems which our youth may face in their educational careers, their personal adjustment and in their choice of suitable vocations. They should possess the necessary skills and cultivate the type of personality which would enable them to win the confidence of youth. The courses leading to the M.Ed. degree should therefore include academic and practical training in this kind of work.

(v) It may be justifiably objected that this differentiation of functions in the courses may lead to narrowness of outlook and over-specialisation. To guard against this possibility, organisation of M.Ed. course should have enough flexibility and it should be possible for any one, who is so inclined, to take up courses which enlarge the intellectual horizon without undue specialisation. A choice of courses in philosophy, history and sociology of education can provide for such interests.

Thus the burden of the whole argument, presented in the foregoing paragraphs, is a plea for a clearer recognition by colleges and departments of Education of their functions in the light of the actual needs of the country and for planning their work accordingly.

If the principle of differentiation of functions is agreed to, it should also be possible to agree with some general principles, implicit in the situation, which should guide us in determining the framework and organisation of courses. Firstly, the courses should be planned to meet certain broad categories of requirements, professional and academic. Secondly, the organisation of courses should be flexible and permit professionally meaningful combinations. Thirdly, a degree of specialisation in at least one of the areas mentioned below should be considered necessary and made possible. It should gradually lead to the upper reaches of the subject-matter fields.

The committee would also like to make it clear that narrow specialisation and rigidity in the matter of combinations of electives is as much to be avoided as aimlessness and lack of direction. The point of the argument simply is that a clearer realisation of the purposes of such a professional course helps to clarify the logic and rationale of the courses of training, permits planning of curricula to meet national needs and is ultimately conducive to better and more systematic placement of trained personnel.

The view is sometimes put forward that we should not be enamoured too much of the idea of specialisation and sacrifice the breadth of understanding which results from a study of courses spread over several areas

designed to produce men (and women) of vision who possess an overall grasp of educational issues and can thus fit into almost any professional position. The point is relevant, and as made out earlier, narrow specialisation and rigidity are to be avoided. But, the point urged here is not that our colleges should attempt specialisation at the cost of a broader understanding, but that the specification of functions envisaged earlier essentially needs a certain degree of specialisation which should be made possible. That this can be achieved will be clear from the following concrete recommendations of the committee regarding the organisation of the syllabus. The pattern proposed is only suggestive and permits a variety of combinations in the various areas. It should prove flexible enough to meet the approval of the advocates of general study of education, and at the same time give enough scope to those who desire to specialise in any particular area.

The committee proposes that the syllabus for the Master's degree may, generally speaking, be organised on the following lines:

A. CORE COURSES

1. Philosophical and sociological foundations of Education (to be taught with reference to current educational problems in India and abroad).100 marks
2. Elements of educational research100 marks

B. AREAS OF SPECIALISATION (three papers from any two of the following areas).

1. Educational psychology, measurement, counselling and guidance.
2. Educational planning, administration and supervision.
3. History, philosophy and sociology of education.
4. Comparative education.
5. Curriculum development, text-books and teaching.
6. Methodology of educational research100 marks
for each paper in these areas.

C. RESEARCH PROJECT100 marks

D. VIVA-VOCE

The words 'areas of specialisation' perhaps need some explanation. An area implies a group of related subjects, each of them with possibilities of

more theoretical and require greater mental maturity and a higher level of intellectual effort on the part of students.

If teaching and learning at this stage are to come upto the desired level, opportunities and conditions comparable to those obtaining in the case of other learned disciplines should be made available. Sustained and uninterrupted intellectual effort on the part of both teachers and students, availability of necessary books and literature, a certain optimum intellectual level and a maturer and more experienced staff are necessary conditions for satisfactory work at this stage.

But as our organisation for teaching stands today, most training colleges and departments of Education run B.Ed. and M.Ed. classes simultaneously and the same staff has usually to share the responsibilities of teaching both classes, supervising student teaching and at the same time guiding the research projects of students of the M.Ed. classes. This not only complicates administrative arrangements but also results in dislocation and interruption of teaching work for the Master's class particularly during teaching practice—a period of about three months. This puts a rather severe strain on the members of the staff and inevitably tends to lower the effectiveness of their teaching. The committee, therefore, is of the view that teachers who are responsible for teaching M.Ed. class should, as far as possible not be normally burdened with the work of teaching practice supervision. This is not primarily a plea for lightening their work but for enabling them to do their real work more effectively. This will ensure continuity of work for the Master's class and at the same time permit the teachers concerned to plan their teaching and research more effectively. A judicious distribution of work would give the teachers an opportunity to grow professionally and also help promote the development of the various branches of the discipline. As it is, the present teaching set-up is not conducive to efficient work at the higher level and some redistribution and division of function is, therefore, necessary.

The organisation of tutorial work and its smooth functioning, the committee feels, is an essential part of teaching and due emphasis should be laid on this kind of work. Attention in this connection is invited to the University Grants Commission Report on *Examination Reforms* which has recommended that teaching work should be done not only through lectures but also through tutorials, seminars, etc.

III. STANDARDS

Judging from performance at examinations and by the overall competence shown in service, the average M.Ed. appears to be a somewhat ill-equipped person and his knowledge and scholarship is less than deep, if not

on one or more main subjects and teach the methodology of teaching of one or more school subjects. Accordingly, one function of training for the Master's degree should be to equip students, who may desire to serve in training colleges, with the necessary knowledge of educational theory and ideas and to provide experiences designed consciously to develop the required competence. The framework of the syllabus should be such as to enable students to choose subjects best suited to their future needs. Colleges and university departments preparing students for the M.Ed. degree should clearly distinguish this function of preparing personnel for training colleges from their other functions.

(ii) Training colleges and departments of Education, in the minds of most of us, are identified with institutions for the training of teachers and it seems to be somewhat difficult to try to wean them away from such a belief. During the last half century, however, many aspects of the educative process have developed into academic pursuits of the status of learned disciplines and the subject 'Education' now embraces areas and functions far beyond the training of teachers. Education has now branched out into several off-shoots, each with a well-defined area and appropriate literature and each growing fairly rapidly in its own right, so that it has its own separate contribution to make to the educative process. The second major function of courses leading to the M.Ed. degree should, therefore, be the pursuit of study and research in these various areas of Education such as its philosophy, psychology, history, sociology etc. and to train personnel who will possess the intellectual discipline and competence to undertake higher study and research in these areas. The M.Ed. curriculum should, therefore, also cater for this very significant function. This can perhaps be best achieved through courses leading to the upper reaches of the subjects, training in methods of research and the conduct of research in the major fields.

(iii) A third function of colleges and departments of Education undertaking work at the higher level is the training of efficient administrators and educational supervisors conversant with modern, enlightened administrative practices. In this category may be included the fairly large number of officers and workers in the departments of Education and the government offices connected with educational planning and administration. In the present set up in the country, administrative posts are filled on the basis of experience and seniority, but the practice has room for improvement and personnel trained specially for such positions may well be able to infuse newer ideas and progressive practices in day-to-day administration. To achieve this end, the courses in administration will have to be re-thought and reorganised.

(iv) A fourth possible objective of the M.Ed. course is the production

The picture is not encouraging specially when we take into account the fact that our training colleges in future are going to be manned by persons whose intellectual status does not compare favourably with that of teachers in other disciplines. This situation requires serious thought by all concerned and steps should be taken to remedy it even if such remedies seem unconventional or radical.

The view of the committee is that while no hard and fast requirements may be laid down for admission to the Master's course the following can be suggested as minimum qualification:

- (i) a good second class B.A./B.Sc.,
- (ii) a good second class M.A./M.Sc. (preferably), and
- (iii) a first or second class B.Ed. degree in both theory and practice.

The combination of qualifications listed above is again a suggested minimum and students with better academic records are, of course, to be preferred. But the large majority of present applicants fall far short of the suggested minimum and therefore, even when students are selected after considerable screening, the majority admitted have poorer academic records.

The committee considered this point at length and is of the view that the situation calls for some radical changes in the present set-up. As long as admission to the M.Ed. class is confined to holders of the B.Ed. degree, there is little chance of attracting a better class of students. Indeed, it seems that such a possibility is almost ruled out.

To attract better and more promising candidates the following steps are suggested:

(i) Direct admission to a two-year integrated course leading to the M.Ed. degree, after at least a second class Bachelor or Master's degree, could be one way of shortcircuiting the requirement of first passing the B.Ed. examination. It should be possible to integrate the work of B.Ed. and M.Ed. classes and combine the two into a unified two-year course. The first year could be devoted to a study of the principles and practices of Education, the candidates being entitled to the B.Ed. degree at the successful conclusion of this course. Those who are able to proceed to the next year could be given the M.Ed. course. Such candidates would be promoted on the basis of internal assessment at the end of the first year. This would of course mean that those who do not take a university examination at the end of the first year would not be eligible for appointment in a secondary school. The internal assessment should include assessment in practical work and should be

equivalent to the university examination. With the introduction of an integrated course it would be possible to attract a better class of students and even students from other areas and also to maintain continuity of instruction. Another obvious advantage would be that vacation period could be utilised for directed reading and study.

(ii) Making the Master's degree a required qualification for recruitment to certain classes of posts such as principals of higher secondary schools, lecturers in teacher training institutions both for elementary and secondary school teachers, inspectorial staff, officers in state departments of education, directorates and central and state ministries.

(iii) Offering incentives in the form of substantial scholarships to students of promise.

A point was also raised whether experience of teaching in a school should be, as it is in some leading institutions in the country, a compulsory requirement for admission to the Master's course. The committee feels that, while such a qualification may be generally desirable it should not be laid down as an essential requirement because of the likelihood of losing promising students, who once they enter schools as teachers find it financially almost impossible to return to the college for further studies.

The Master's degree at present is mostly ornamental except for service in a training college. In fact, many colleges prefer an M.A. with a B.Ed. degree as against those who have an M.Ed. degree after a B.A./B.Sc. The situation can be remedied as already suggested by recognising the M.Ed. degree with specialisation in some aspect of education as a requirement for certain categories of appointments in educational services. But this can be achieved only after the universities and colleges preparing students for the Master's degree visualise the M.Ed. course not merely as continuation of the B.T. or B.Ed. class, but as preparation for certain broad categories of services, and the training provided goes beyond a general omnibus preparation which supposedly prepares an individual for all kinds of work in the field of education.

II. TEACHING

Courses of study at the Master's level should be different from courses leading to B.Ed. or B.T. degree, not only in standard but also in respect of orientation and character. While the content of courses for the B.Ed. degree has a definite professional and practical bias and is oriented towards helping the teacher in understanding his pupils and guiding their learning and development, courses leading to the M.Ed. degree should be distinctively

being taught and developed up to the highest level and each permitting specialised study. Individual institutions may take up one or more areas for teaching and research upto the highest level. As mentioned earlier, the areas are only suggestive at this stage and, with time, other areas will no doubt be opened and those suggested here may be bifurcated or even trifurcated.

In most universities and colleges the choice of electives is limited by shortage of staff and also by the fact that the staff is fairly heavily loaded with teaching and supervisory work at the B.Ed. level. But the options available frequently lack bias or direction towards *any definite branches of the professions* in the sense of fulfilling the essential requirements of the profession which may need a thorough and detailed knowledge of a particular subject-matter field. The alternative suggested by the committee is the study of fewer content areas chosen carefully to meet the needs of a future career, and studied meaningfully in the context of the needs of education in the country. On the whole the committee would favour a detailed and more purposeful study of fewer areas as against the present practice.

I. ADMISSION REQUIREMENTS

It is generally recognised that the profession of secondary school teaching does not attract the cream of our graduates, and it would perhaps not be far from the truth to say that the bulk of the training college entrants is drawn from the bottom 30 or 40 per cent. The social strata from which a majority of the teachers are drawn, their intellectual status and their cultural equipment are usually low. In a number of studies which cannot be quoted here for lack of space, a distressingly large proportion of student teachers have been found to be third class arts graduates with indifferent or unpromising subject combinations. This is unfortunate, but a fact, a fact which few knowledgeable people will dispute, and which all those who strive to improve the situation must take into account.

The required entrance qualifications to the M.Ed. course in all universities in the country and also in the U.K. is a degree or diploma in teaching, which fact, in the case of India almost automatically means that entrants to the M.Ed., course will necessarily be drawn from the lower ability groups (who pass the B.T. to enter the teaching profession)—to be optimistic, from the lower fifty per cent of our graduates. There are exceptions here and there but speaking generally, it would appear to be a logical conclusion that the average educator of tomorrow is likely to be less gifted as a person, and poorer in attainments than his counterparts in other learned disciplines. The implication of this state of affairs for the future of Education as an academic discipline and as a national service of fundamental importance is

quite superficial. It is true that he has spent another year in college but for reasons cited earlier, there is no appreciable or adequate increase in his ability. The curious thing is that the percentage of passes at the M.Ed. examination is generally good and a fair number of students even pass in the first division. The general standard of attainment, however, leaves much to be desired.

This may be partly due to the fact that there is a tendency in some states to start M.Ed. classes even when the colleges are not adequately equipped and staffed. The multiplication of such classes is bound in the long run to affect the standards adversely. It is interesting to note that the Radhakrishnan Commission also had noted lack of equivalence in the standard of training offered by the institutions.

Apart from these considerations a most important factor in determining standards is the quality of entrants. The committee realises that this is a difficult thing to improve. It is, however, expected that the suggestions contained in the report will generally help to improve standards.

IV. DURATION OF COURSES

There are two broad patterns prevalent in the country. In most states it is a one-year whole time course, but in others—Bombay for instance—it is a two-year course requiring part-time attendance in the afternoons and 5/6 weeks full-time attendance during the summer vacations. During the year on a full-time basis (or in two years on a part-time basis) the student has to study 3 to 5 papers and write a research project. This is fairly heavy work and compared to other postgraduate classes the quantum of work appears to be on the whole a little heavier. The committee is of the opinion that for thorough training a two-year course leading to the Master's degree should be instituted and there is a general consensus of opinion among educationists in favour of this proposal.

There are, however, circumstances beyond the control of educators which make it virtually impossible to increase immediately the duration of the course to 2 years. The average teacher comes either from the lower strata of the middle class or in some states from a peasant background. He usually has an indifferent degree and is able with difficulty to afford the expenditure involved in his first year of training. Out of this lot, the few who aspire for the Master's degree do so at considerable sacrifice to themselves and to their families and if the duration of the course is increased to two years (after B.T.) it is feared that there will be few entrants to it. The reasons therefore are mainly of an economic character and not easily surmountable at the present time.

The two-year integrated course suggested earlier is a feasible solution but its *modus operandi* and feasibility will naturally have to be examined in some detail. Meanwhile, obviously the present one-year course will continue.

V. DISSERTATION

With a few exceptions, a research project of limited scope is a requirement for the Master's degree in Education in almost all universities. This is intended to serve two broad purposes. Firstly, it orients students to thinking in terms of solutions of educational problems in the light of facts and secondly, it acquaints students with the rudiments of methodology of research. In itself, its merit as a contribution to knowledge and its scientific character have quite obvious limitations, but as essays in systematic and purposeful thinking, however elementary, the value of such work is generally recognised. It is recognised that most of these projects may not be able to stand up to the test of correct scientific approach to research and quite a few will not even merit the title of a research study.

Educational research is relatively new in the country and not many of the teachers have the required background and understanding of scientific method as applied to the Social Sciences. In the solution of educational problems, where the variables in almost any situation are complex, the method and its rigorous application count for a great deal and pitfalls are many. Not infrequently a piece of research fails to reach standards of exactness and validity required of a scientific study due to a relatively minor omission on the part of the worker. The tools are few and often amateurish and these too are not always easily available. Thus lack of insight in problems of methodology, lack of experience and training on the part of the guides, inadequacy of tools of research, are in most cases responsible for the rather indifferent quality of M.Ed. dissertations.

The committee feels that, in times to come, people connected with education will have to be weaned from dogmatic assertion of personal opinion and learn to think more and more in terms of scientifically verifiable generalisations. The committee has, therefore, suggested the introduction of a compulsory paper on elements of research. The dissertation, it is suggested, should be regarded as the practical aspect of this paper. At present, these dissertations, in about 90% cases, are questionnaire studies, often on some trifling issues. Quantitative calculations are sometimes attempted and more often than not some statistical methods are applied. It is unfortunate, however, that in a large majority of cases, this is done incorrectly or without sufficient understanding. This point needs the attention of the faculty of the colleges.

It would be worthwhile to consider the possibility of a wider problem being selected and then broken up into smaller units and several students working on the different aspects of this more comprehensive problem. Another possible alternative to dissertations could be the writing of good text-books. This, in the opinion of the committee, is a perfectly legitimate and acceptable form of research study at the M.Ed. level. Preparation of measuring tools and texts in school subjects can also be useful as M.Ed. dissertations. The committee strongly feels that there is urgent need for improvement in the content as well as methodology of research. The holding of research colloquia, where each student may present from time to time, his research project and its progress before other students and members of the staff, detailed incisive reviews on significant books and the pooling of opinion in these free academic discussions would result in enriching the content, method and general quality of the research. Such seminars are a common feature in universities in some other countries and their results justify our using the method more extensively than at present. Some persons are apt to be rather sensitive to criticism and careful guidance will have to be provided to ensure that such colloquia do not become an occasion for destructive criticism. These colloquia, combined with a course on elements of research methodology may go a long way towards improving the quality of research at the M.Ed. stage. The committee strongly recommends the adoption of this practice.

VI. EVALUATION

The general practice in most universities is that a candidate's merit is assessed on the basis of his performance in :

- (i) a written examination,
- (ii) the dissertation,
- (iii) sessional work, and
- (iv) a *viva-voce* examination.

But practices vary from one university to another. In some universities a practical examination in psychological experimentation and in one university at least an examination in class-room teaching is also held. Also while some universities give weightage to the work done by a student during the session, others do not. Practices in respect of the assessment of the research project also differ. The thesis in some institutions is examined only by an external examiner, in others jointly by the internal and external examiners and in yet others a *viva-voce* examination based on the thesis is also held and marks are shared equally between the internal and external

examiners. In respect of written papers the practice in Utkal University is to appoint two examiners for each paper.

While examination practices and policies are decided by the universities, the committee is of the view that in essential matters such policies should, as far as practicable, be uniform. It recommends that a *viva-voce* examination broadly covering the whole field of knowledge studied by the candidates should form part of the examination. This does not mean that questions should be asked on all papers, thus duplicating the written examination. It does, however, imply that the board of examiners should be free to take up any branch of the syllabus, though naturally an intelligent board would be more anxious to explore the candidates' strong points rather than expose their weaknesses. This should enable the examiners to assess the clarity of understanding and general alertness of the candidate and offer a useful check for the internal assessments.

The committee is of the view that at least 20% weightage may be assigned to the sessional work of students and suitable checks may be evolved to ensure the reliability and validity of internal marking. One such method, it is suggested, could be *to have committees comprising members of the faculty to make such assessment* or even to associate an external member with the work.

The assessment of the dissertation is a somewhat different job, partly because each dissertation is on a different topic with its own method of treatment, and partly because there are hardly any agreed criteria on which to assess the merit of the work, apart from the vagaries of examiners and their almost unavoidable bias. In some instances doubts have been expressed whether a piece of work is or is not research. It should, however, be possible to evolve criteria such as originality of approach, aptness of methodology, selection of topics, thoroughness of treatment and proper application of scientific method, etc. Evaluation of the work may be done in consultation with the guide, taking care to see that the difference in assessment between internal and external marking is not unreasonable, say exceeding 10%. If it is so, the work could be assessed by a third examiner.

The committee also examined the question of categorising successful students into the usual three divisions and recommends that universities should give a pass degree at 45% and a pass with distinction at 65%. This would be in accordance with the general recommendations of the UGC's Examination Reform Committee. The third division could thus be abolished.

RESEARCH IN EDUCATION

The present position of educational research in India has been broadly surveyed and the requirements and conditions laid down by various Indian universities with regard to educational research at various levels have been presented in a previous chapter of this report. This chapter is concerned mainly with examining the quality of research and the various factors which, in the opinion of the committee, seem to influence it. Suggestions are also made for the improvement of facilities for research and raising its quality.

Although discussions of a theoretical character to elucidate the meaning of methodology and technique of research do not form part of this report, it is not possible completely to eschew theoretical considerations. To provide a perspective and to work out and evolve criteria for evaluating research, it is necessary to give a brief theoretical background.

While it is difficult to define research in precise terms, it is possible to lay down a functional definition to derive criteria for evaluating it. It may also be possible to point out the broad functions of research and anchor them to the functional definition.

Irrespective of the subject matter of research, it may broadly be defined as an essay in scientific thinking which leads to the exploration of some area of knowledge and helps the research worker to arrive at valid, pertinent and meaningful generalisations, valuable either in themselves or in providing solutions to practical problems. This definition points to two main purposes of research—firstly, research pursued for the purpose of finding solutions to problems as they face man in his day-to-day living and secondly, research leading to valid generalisations and building a theoretical framework to connect and explain known facts which point out new directions of thought and thus lead to the discovery of new facts and phenomenon. These two aspects of research, which are generally understood as ‘applied’ and ‘pure’ research respectively reinforce and supplement each other. Intellectual effort directed at seeking solutions to problems of a practical character frequently raises issues of a theoretical nature which must be investigated and these in turn open newer avenues of applied research. This cross fertilisation between applied and pure research, taken in all its ramifications, results in the enrichment and advancement of human knowledge, develops newer tools, techniques and methods. This may be said of research in any discipline and therefore also about research in Education.

Organised and planned research in Education is a relatively recent venture. It, therefore, lacks the maturity which other Social Sciences have attained and there is, consequently a degree of uncertainty in some aspects of the work. Even so, it must be recognised that standards of accuracy and validity of generalisations now attained in research in Social Sciences are much higher than before, though still far below those in the Physical and Natural Sciences. Methods of collecting data, techniques of analysis and design of research have reached a fairly advanced stage of development. A systematic methodology of research has been evolved and a whole branch of this methodology deals with the construction of suitable instruments of research, their use and refinement. Accurate and reliable statistical procedures are available to the research worker and application of statistics in the field is being rapidly expanded. The educational research worker must learn to utilize the general techniques of social research.

In India, research in Education is newer still—the main impetus has come after the attainment of political independence and planned development of various sections of education. So, obviously, research in the field of Education in our country is still in its infancy and is only gradually finding its feet. In the nature of things, considerable time must be needed for sound traditions of research to be built up, and one cannot expect radical improvements in the quality and meaningfulness of research until we had time to overcome the severe limitations under which we have been working. The committee was fully aware of the situation and its rather limited purpose is to highlight the main issues which confront us, and to offer some workable recommendations for the over-all improvement of research programmes.

While it would be unfair to deny or underplay the work done by some individuals and institutions, we must admit that taken as a whole it has neither been of good quality nor has it adequately discharged its proper function in the educational set-up of the country. If we have to put educational research on a sound footing we must recognise our limitations and shortcomings and make an earnest effort to overcome or at least to minimise them. The problems that arise in the field fall under the following broad heads:

- (i) research worker and his training,
- (ii) selection of research workers,
- (iii) research instruments,
- (iv) finances,
- (v) research tradition, and
- (vi) evaluation of research.

I. RESEARCH WORKER AND HIS TRAINING

In the entire research process, the research worker, his training and mental equipment must occupy a pivotal position, because it is ultimately on the researcher as a person that the outcome will necessarily depend. We have at present four categories of research workers. These are: (i) the students working for a Master's degree in Education— these constitute the largest category from the point of view of numbers; (ii) those working for a Ph. D. degree; (iii) members of the staff of training institutions who individually or jointly undertake to work on some project; (iv) the uncommitted worker who engages in research for its own sake.* The last two categories of research workers do not directly fall within the terms of reference of the committee and no comments are needed in this behalf. The other two will be discussed in some detail.

(i) The duration of the M.Ed. course in most universities is one academic year during which time an average student has to prepare for a university examination in four or five papers and has in addition to work on a research project which is usually a requirement of the degree. If he distributes his time evenly, he has the equivalent of about two months to spend on his research. He is drawn from an ability stratum which is avowedly below the average of our graduate population. In comparison with his peers in other Social Sciences his academic achievement and cultural level are both relatively lower. It is his first experience with research and his acquaintance with research methodology, tools of research and techniques of handling data is far from intimate. His knowledge of the research area is not deep enough and often quite inadequate. It is clear, therefore, that from this class of educational worker we cannot, in fairness, expect work of very high merit, nor should we expect that it will have any far reaching impact on educational practices. In the circumstances in which he is placed, his work is likely to be of restricted value, not of a high quality and not likely to lead to higher generalisations.

Despite these limitations, the committee is of the view that a research project should be a requirement at this stage. It will be useful in orienting the thinking of our future educational leaders towards research and its functions, give them a general acquaintance with methodology and build up a frame of reference which would help the individual to distinguish truth from dogmatic opinion or at least recognize that the two are not identical. To achieve this worthwhile purpose, the committee feels that a paper in 'Elements of Educational Research' should be compulsory for the students of

*The list is not exhaustive.

M.Ed. Teaching of this paper and the research project should be co-ordinated so that they have a chance to practice what they learn in theory.

(ii) Research leading to a Ph.D. degree is still on a very limited scale, but the number of students seeking admission to the Ph.D. course is gradually on the increase. Much the same limitations, as described earlier in the case of aspirants for the M.Ed. degree, apply in the case of doctoral students also. There is an unfortunate tendency for doctoral theses to be bulky, verbose, repetitive and usually the presentation is pedantic. The reports not infrequently incorporate material available in well-known texts and discuss at length issues, which have been thrashed out exhaustively by other writers.

While this is a major fault, it is by no means the only one. Lack of knowledge of the subject-matter area on the part of students working at this level is another basic shortcoming. Before an individual starts thinking in terms of extending the boundaries of knowledge in any area, it is axiomatic that he should have studied the subject to such an extent that he is able to see gaps in the existing structure of knowledge and develop sufficient insight to locate promising problems. But in the present organisation of work in the universities, the understanding and scope of study of a prospective worker at the Ph.D. level is restricted to the study he has done for one or two papers at the Master's level. He may have supplemented it by his private study, but in many cases such study, done without adequate guidance, falls short of the degree of scholarship needed for pursuing significant research. It is perhaps for this reason that much doctoral research tends to be amorphous and lacking in point and depth. An attempt is frequently made to compensate for this shortcoming by widening the scope of the study which results in some kind of a 'voyage of discovery' or even in a 'fishing expedition.'

In the U.K. and the U.S.A., a prospective candidate for a Ph.D. degree is required to take courses in the field of special study upto the highest level. And not until he has given evidence of his competence in the subject of his research and of his mental capacity, is he permitted to begin his research. In our set-up, however, there is no provision of tuition beyond the Master's level and, desirable as it is, it will take some time before it can be instituted. The committee felt that this was particularly important in a subject like Education. While an aspirant for the Ph.D. degree in any other subject is generally expected to have the benefit of six years of tuition and study before starting his research, a worker in the field of Education has only two years of work in the subject, one year for the B.Ed. degree and one for his M.Ed. programme. The committee is of the opinion that the attention of university bodies should be drawn to this important point and that before a candidate is

admitted to a course leading to the Ph.D. degree, a procedure should be evolved to ensure that only persons with sufficient knowledge and experience are admitted. A period of suitably designed apprenticeship prior to admission would perhaps meet the situation.

The question of methodology assumes much greater importance at this level, because if the study is to yield results of unquestioned veracity, and higher generalisations are to emerge from it, the research worker must be conversant with problems of research design, the tools of collecting data and methods and techniques of analysis. He must also understand the place which a 'hypothesis' occupies in research design and possess the needed mental maturity to use a hypothesis as a guiding light in planning research and in drawing conclusions. Lack of training or inadequate training in methodology leads to research of doubtful value and this aspect needs attention. The period of apprenticeship, if properly planned, should be utilised to provide necessary opportunities for studying the subject matter area and training in methodology of research.

Understanding techniques of analysis is another essential part of training in methodology and the student should study techniques relevant to his work during the period of pre-admission internship. A useful method for this purpose is the research colloquium which may well take the place of formal coaching in methodology. Such colloquia combined with individual guidance will go a long way towards achieving this vital objective of training in research methodology.

II. SELECTION OF RESEARCH WORKERS

It is generally recognised that the profession of secondary school teaching does not attract the best of our graduates or even the second best. A number of surveys have shown that students who seek admission to training colleges come from the lower 25 to 30 percent of our graduates in order of academic merit and represent the less privileged socio-cultural strata of society. Out of these curiously not the best always go for the Master's degree and out of the Master's degree holders not the topmost aspire for a Ph.D. This inexorable process automatically eliminates the best and admission to Ph.D. courses has often to be restricted to the relatively lower ability group. Such a restriction practically prescribes that only the less gifted and the less able shall be the future leaders in the field of education.

The committee noted the situation with concern and is of opinion that, if wastage is to be avoided, selection for admission to courses leading to the doctor's degree should be more rigorous and suitable criteria of proficiency

and competence should be evolved. Professional experience, mental capacity and high achievement level must be insisted upon in all admissions to the Ph.D. course. Besides laying down rigorous criteria for admission, suitable methods should be evolved for testing students' capacity before they are allowed to proceed with their research. Such examinations are normally held in most American colleges and universities.

A candidate for doctoral research should be admitted only after a proper assessment of his scholarship and capacity for research. This may be done during and after his apprenticeship period and only those candidates who give sufficient evidence of critical and creative ability should be admitted to the Ph.D. course. It would also be desirable to prescribe one or two years of professional experience as a pre-condition for admission to doctoral research course. Candidates for the Ph.D. degree should also make an intensive study of the subject of their research and opportunity for such study should be provided during the apprenticeship period. Procedures for judging the competence of the scholar in his special field of work should be evolved. Competence in methodology of research and techniques of handling data should also be assessed before he is allowed to proceed with his research.

Candidates should pursue their research only at institutions where adequate library facilities and competent supervisors are available. There should be no bar for students who desire to go to other approved institutions where they could work under the guidance of specialists for limited periods. Such mobility should be encouraged by providing financial assistance in the form of travel grants and scholarships. It would also be desirable to have a doctoral committee for each candidate composed of recognised scholars from related fields. Before a topic for research is accepted by the university, this doctoral committee should examine the candidate with regard to his previous background, present equipment and his acquaintance with the nature of the problem and methodology that he will use in his research. The candidate should be allowed to pursue research only after the acceptance of his problem by this committee. The main responsibility for guiding the candidate throughout his research should, however, remain with the supervisor. It is suggested that research guides should be selected carefully on the basis of research experience. No person should be recommended for appointment as supervisor unless he possesses a doctorate degree or has published research work to his credit or is a scholar of recognised merit.

The universities and institutions engaged in research should evolve commonly acceptable criteria for judging the suitability of topics proposed by the candidate for investigation. There seems to be some controversy with regard to the relative importance of fundamental and functional research.

This controversy is futile at the doctoral level. There may be a few candidates who are capable of attacking fundamental problems of education. It would not, however, seem advisable for a large majority of doctoral candidates to take up such problems in their research. This is important not only because an investigation at the doctoral level is probably the candidate's first encounter with research but also because the country needs urgently solution of many practical problems.

III. RESEARCH INSTRUMENTS

In addition to books and learned journals, a research worker in the field of education uses a variety of instruments. He either makes these instruments himself or tries to obtain them from publishers and other centres which prepare and distribute them. The worker in India, however, suffers from a handicap in this respect. He does not possess his own instruments because he has not yet devoted sufficient attention to the problem, and instruments imported from outside, unlike instruments used by the natural scientist, become virtually useless in a country where the language, social and cultural traditions and the economic structure of society are entirely different. They can at best be used as models, but the adaptations so made lack the finesse and refinement of the original. It appears that many worthwhile problems will have to wait till proper and sensitive instruments have been developed here. This presents another series of problems into which it is not the committee's object to enter, but it is obvious that a considerable amount of research effort will have to be devoted to the preparation of suitable instruments of research. The distribution of such tools will have to be efficiently organised so that workers may obtain them at reasonable cost and without difficulty.

IV. FINANCES

The investment which the average aspirant for a Ph.D. degree in Education is able to make in terms of both time and money is considerably small. It has to be carefully weighed against possible gains in emolument and decision taken on the financial merits of the case. The average applicant for the Ph.D. is seldom the fresh M.Ed. It is usually the established college teacher, with some experience and maturity and reasonable prospects of promotion, who embarks upon a course of research leading to the Ph.D. degree. He can ill-afford to go on long leave without pay for a venture of doubtful outcome. The result is that, in the absence of proper incentive either in the shape of better prospects or in the shape of fellowships, there are few who are willing to take the plunge. The situation in other Social Sciences is not comparable where one finds a fair sprinkling of capable students willing and able to invest funds and time in taking a Ph.D. degree.

The committee discussed the question in considerable detail and is of the opinion that in this difficult situation, special fellowships and scholarships should be instituted and earmarked for Education. Without such incentives, it would not be possible to attract good talent.

V. RESEARCH TRADITION

It would appear that research in an applied field like Education fulfils two significant purposes. It serves to provide answers to questions which arise in the educational field and secondly it helps to build up higher generalisations and perceptions of inter-relationship which contribute to the growth of the discipline. But before research conclusions begin to influence practice and result in a change of policy, the conclusions have to be checked and rechecked through further research and trial. Newer ideas emerging from research have to be pooled from time to time and the findings of research made available to the teacher or administrator for their consumption. The value of the research and its main function as a tool for the improvement of educational practice and policies must, in the first instance, be brought home to the educational worker in the school and college. He should be helped to understand that research is not an ivory tower pursuit—a mere pastime of scholars and intellectuals. This realisation and its acceptance by educational workers and its propagation in the field are necessary, if research is to strike roots in the country, fulfil its major purposes and give educational research the place that it should have in the thinking and practice of persons who matter in the realm of education. That is, we should not merely produce sound research but also educate the educational worker as a consumer of research. The average teacher, school principal and the educational administrator should be oriented to respect research findings and so far as possible agree to be guided by these findings in his day-to-day work and administrative practices. The creation of a proper atmosphere in which the educational worker will look up to research findings for the improvement of his work, is as much the duty of the research worker as the conducting of research.

To create the necessary atmosphere and to promote confidence in the average administrator and teacher, our research output must improve in quality, be more scientific and rigorous and win for itself the confidence that it ultimately wishes to command. This additional responsibility of the research worker demands that traditions of accuracy, veracity and soundness are established in research work. It will be the duty of those responsible for guiding and organising research to set up rigorous criteria for the conduct and evaluation of research.

VI. EVALUATION OF RESEARCH

A very heavy responsibility devolves on those who are called upon to pass judgement on the soundness and merit of research. They have to be persons of experience, knowledge and courage before whom the only consideration is service to the theory of Education. This again is a matter of building up a tradition and requires considerable experience and time. Evaluation of research, whether it is for the award of a degree or for expert comment, has to be a value judgement and in the nature of things, differences of opinion are likely to arise. Such differences are quite common in other countries and areas also. They can, however, be minimised, if some criteria can be worked out by the institutions and individuals concerned.

Such criteria might be based on considerations like the following:

1. Is the subject of research significant in respect of the contributions it is likely to make?
2. Does it lead to improvement in educational practice or contribute to the growth of knowledge?
3. Is the methodology appropriate to the nature of the task? Is the design relevant to the kinds of questions and problems raised by the study?
4. Have appropriate techniques of collecting data and analysing it been intelligently understood and used?
5. Is the worker aware of the limitations of his work and does he understand the assumptions underlying the research design?
6. Is the treatment logically coherent and do conclusions follow scientifically from the data and its analysis?
7. Is the presentation free from unnecessary verbosity, pedantry and looseness of structure?

These considerations may not fit all types of studies—for instance philosophical research and research aimed at the preparation of a plan, as well as historical research. Separate criteria may have to be worked out in such cases where the treatment is generally of a subjective character.

The committee attaches great importance to the evaluation of research theses and suggests that where it is submitted for doctorate degree, three examiners be appointed for evaluating it. Examiners should be chosen for their knowledge of the subject, their experience with research, their integrity and the maturity of their judgement and wisdom. If qualified persons in

the field of study are not available in the country, specialists from abroad should be invited to act as examiners. The dissertation should be approved only when the examiners have given their unanimous verdict in its favour. In the event of difference of opinion between the examiners, it should be referred to another examiner whose opinion should be accepted as final. The supervisor should not himself evaluate the dissertation but may be associated with the *viva-voce* examination. Every candidate for the Ph.D. degree must be required to defend his thesis, his methodology and the result of his investigations before a panel of experts in the area. If a thesis/dissertation is accepted for the Ph.D. degree, it should be considered worthy of publication and so far as possible funds should be made available for its publication.

STAFF AND FACILITIES

Postgraduate courses in Education should seek to provide training for personnel of a higher professional competence who may serve as teacher-educators in teachers' colleges and departments of Education in universities, as educational administrators or as experts in psychological services. Preparation of such personnel obviously requires a high grade teaching staff as well as certain material facilities. The data obtained from a few selected universities of Great Britain and the U.S.A. show that generally their departments of Education and teachers' colleges are well equipped to discharge their functions properly. In India conditions obtaining in respect of staffing, equipment and other facilities vary widely from institution to institution, and in most of the places they are far from satisfactory.

On the basis of the information collected and opinions received from a number of Indian universities, the Committee would like to make the following suggestions.

I. TEACHING STAFF

1. *Academic Qualifications and Professional Experience*

A postgraduate department of Education is required to carry on both teaching and research. As such, it must be staffed with persons who, by virtue of their academic background, professional preparation and experience, are competent to offer postgraduate courses, carry on research and guide research projects. The department should, therefore, be staffed adequately and have some senior posts of professors and readers. The minimum qualifications of staff should be as follows:

(a) Lecturer

- (i) At least a second class Master's degree in Education besides at least a second class Master's degree in any other subject.
- (ii) Three years' experience of teaching and/or administration and/or research.

(b) Reader

- (i) Qualifications same as for lecturer.
- (ii) Five years' experience of teaching and/or administration and research (Research would connote a research degree in Education or published work of recognized merit).

(c) Professor

- (i) Qualifications same as for lecturer with addition of research degree.
- (ii) Ten years' experience of teaching/research and/or administration.

The condition with regard to experience may, the committee feels, be relaxed or lowered in the case of first class candidates who have some meritorious published research work to their credit. It will be noted that the committee has kept the proposed qualifications fairly elastic, laying down some academic qualifications and defining 'experience' in broad terms. This is meant to keep open a wide field of selection and not to lower the criteria of selection. The committee hopes that normally, other things being equal, preference will definitely be given to first class candidates or to those with research degrees to their credit. But under the rules it should be open to an independent and impartial selection committee to take other relevant considerations of an academic nature into account and make a selection on the basis of a balanced assessment.

Colleges which have responded to the questionnaire have generally agreed that the qualifications proposed for the various categories of posts are adequate. Some of them have, however, suggested that a research degree be made a required qualification for senior posts. While the committee appreciates the recognition of the importance of research at the postgraduate level implied in the suggestion, it believes that in special cases research work of recognised merit can be considered as a substitute for a research degree. It would also be inadvisable to accept the suggestion made by one of the respondents that the condition in regard to professional experience should not be relaxed in the case of outstanding first class candidates, because they may in the long run prove more useful as teachers and researchers than their less brilliant but more experienced colleagues. After all, experience can also be acquired after appointment provided one has the right quality of mind.

2. *Workload, Student-Teacher ratio, etc.*

In the B.Ed. class the workload is reported, on the average, to be between 18 and 20 periods a week (period=40 minutes) including practice teaching, tutorials, etc., and the student-teacher ratio is about 10:1. As all the staff members concerned with postgraduate courses will have to carry on and guide research besides delivering lectures, taking tutorials, holding seminars, discussions, etc. their workload should not exceed 15 periods a week. It is expected that all professors and readers would divide their time equitably over (i) teaching, (ii) doing

their own research and (iii) guiding research of their students and research fellows.

In order to raise the standard of teaching and educational research, the number of senior posts should be about one-third of the total strength of staff.

3. *Separation of Staff for the B.Ed. and M.Ed. Classes*

It is generally believed—and the committee agrees—that, if the staff for the postgraduate course is overburdened with B.Ed. work, teaching and particularly research at the postgraduate level are apt to suffer. In view of this, it has been suggested that the staff for the B.Ed. and postgraduate work be separated. While realising the force of this statement, the committee feels that it may neither be possible, nor is it desirable to have an entirely independent staff for the B.Ed. and postgraduate courses. It would prefer to recommend that teachers concerned with postgraduate work should not, as a rule be given the responsibility for the supervision of the practice teaching of B.Ed. students, as this is obviously a time consuming work which can be delegated to other members. Incidentally, it would be, in the long run, an economy if for the supervision of practice teaching, some competent and experienced teachers and headmasters from good secondary schools and officers from education departments are deputed to training colleges for definite periods so that they could bring an element of reality into the work of teaching practice and improve their knowledge of educational techniques and practices in association with training college staff. Simultaneously, it would be a good thing if some members of the training college staff could be deputed to good secondary schools where they have a chance to try out their ideas on the anvil of intelligent practice. The committee is aware that this is being done on a limited scale at present in some colleges. It would be a great advantage, if the dialogue between the schools and the teacher training institutions is continued. The mature experience and qualifications of senior teachers could be more fruitfully utilised in doing some of the lecture work at the B.Ed. level. But due care should be taken that they are not unduly involved in this work at the cost of their main responsibility towards the postgraduate students. The committee also recommends that the well-qualified and competent teachers at the B.Ed. level be encouraged to take up some teaching assignment in their fields of specialization at the M.Ed. level, as this practice would help in the professional improvement of promising teachers.

4. *Inter-Departmental Teaching*

Teachers' colleges and departments of Education tend to regard themselves exclusively as professional institutions like medical or engineering colleges. As such, they wholly rely on their own teachers for the conduct of their courses. 'Education' being related both to

Humanities and Social Sciences, the teaching of Education would be considerably enriched, if students are exposed to experiences and points of view of teachers drawn from other cognate disciplines. It is, therefore, recommended that an attempt be made at least by unitary universities to institute a system of inter-departmental teaching. For instance, teachers in the departments of philosophy, psychology, sociology, etc. may well supplement the course given in these subjects by the staff of the teachers' colleges or the departments of Education. In a lively and intellectually vital university, it should be possible and useful to associate professors from related fields with the whole planning and organisation of courses and to arrange interchange of ideas about 'frontier' problems between different disciplines. This would of course, apply with special force at the M.Ed. and Ph.D. level.

II. EQUIPMENT AND OTHER FACILITIES

1. *Library, Reading Rooms and Cubicles*

Generally the libraries of teachers' colleges/departments of Education are poorly equipped. There is a lamentable lack of reference books and journals, documentation materials, research tools, e.g. tests, rating scales, etc. without which no educational research worth the name can be conducted. Some libraries do not have even standard professional books, to say nothing of literature from other cognate disciplines. Provision of a good library should be regarded as indispensable for raising the standard of professional preparation and research in postgraduate institutions. This would naturally require considerably larger financial resources than are at present available to most institutions.

It is not enough to have a good library. What is more important is to provide students with the facilities and the motivation for the proper use of the library. For this purpose, there is a need for a good reading room and well-furnished cubicles for postgraduate students. They should be guided to make an effective use of the library, to cultivate love of good books and sound reading habits.

The committee, therefore, recommends that a teachers' college/department of Education, which intends to offer postgraduate courses in Education should provide for its library a grant of at least Rs. 50,000 phased suitably over a period of 5 years and subsequently a recurring grant of Rs. 5,000 per annum.

2. *Accommodation*

The committee recommends that the standard of accommodation of 5,000 to 7,000 sq. ft. laid down by the University Grants Commission

for postgraduate departments be also adopted by postgraduate teachers' colleges/departments of Education.

3. *Loans and Scholarships*

In order to attract better students to the postgraduate courses in Education, it is necessary to offer liberal assistance to the candidates in the form of loans and scholarships. Without such assistance, it would be difficult to improve the quality of entrants. The Ministry of Education and the Planning Commission have formulated a scheme under which loans may be provided to deserving candidates for different courses. The committee recommends that it should be brought to the attention of the Ministry that there is need to make special provision in this scheme for candidates who take up postgraduate study in Education.

4. *Research Colloquium*

Research being an essential part of postgraduate studies in Education, students should be provided with ample opportunities to gain experience of, and develop an insight in methods and techniques of research. Lectures given by the teachers on the various topics and students' private study are not sufficient for the purpose. To stimulate thinking and creative criticism, a research colloquium may prove to be of great value at this stage. This would provide a forum for discussion of the actual problems of research on which the students are working. The committee, therefore, recommends that in all postgraduate institutions research colloquium should be arranged at suitable intervals in which the M.Ed. and Ph.D. students may be required to present their research problems with design and methods of study and later submit the report of their progress and difficulties for discussion by the faculty and the students. Specialists from outside may also be invited occasionally to give the benefit of their advice, wherever possible.

5. *Seminars and Workshops*

Students or teachers who have completed postgraduate studies in Education would come up against various kinds of problems in their work calling for co-operative thinking and discussion. In view of this, the committee recommends that regional seminars and workshops may be organised by teachers' colleges/departments of Education on current problems of education and other professional topics. The University Grants Commission may be able to find a way to accommodate such seminars and workshops in their schemes which are in operation at present.

6. *Evening Courses*

In certain big cities, there are quite a few graduate teachers in service who desire to improve their educational status while they are on the job. Though there are some obvious disadvantages in organising in-service courses for such candidates, the committee feels that in the existing circumstances, it would be worthwhile to meet the demand by instituting evening courses. This would make it possible for able teachers in service, who would otherwise be unable to improve their professional attainments because of inadequate finances, to take up postgraduate courses. Care should, however, be taken to ensure that this does not result in a deterioration of standards. The evening courses will have to be extended to a longer period than the full-time course in the interest of maintaining parity of standards.

Sd. K. G. Saiyidain	<i>Chairman</i>
Sd. T.K.N. Menon	<i>Member</i>
Sd. Salamatullah	..
Sd. A. Mujib	..
Sd. K. L. Joshi	..
Sd. P. J. Philip	<i>Member-Secretary</i>

SUMMARY OF OBSERVATIONS AND RECOMMENDATIONS

1. INTRODUCTION

1.1 There has been a considerable expansion of facilities for teacher training in the country after Independence. The number of training colleges as well as their intake capacity has increased considerably. The number of training colleges stood at 36 in 1950-51, 75 in 1955-56 and 108 in 1958-59. Their total intake capacity increased from 3,490 in 1950-51 to 13,779 in 1958-59.

1.2 There is at present a certain lack of agreement in regard to the principles and practices, incorporated in the programme of study offered by various institutions in Education. The courses prescribed reveal considerable variations in regard to goals as well as the means for achieving them. Practices relating to admission, choice of the curriculum and type of research required of the students lack proper co-ordination. Such conditions make it difficult for various training institutions and departments of Education to make a real contribution to educational thinking and planning in the country.

2. POSTGRADUATE STUDIES IN EDUCATION

2.1 The M. Ed. course should have the following broad objectives:

- (a) To produce competent teachers for the training colleges;
- (b) To train personnel for undertaking higher studies and research in problems of education;
- (c) To train educational administrators;
- (d) To train persons for educational and vocational guidance of youth; and
- (e) To produce competent educational workers with a thorough understanding of the role of planning and education in national development.

2.2 The content of the M. Ed. course should lead to at least one specialization and to a fair acquaintance with the methodology of educational research, besides promoting a desirable intellectual discipline. The curriculum suggested is given in the body of the report.

2.3 For admission to M.Ed. course the candidate should generally have a good second class B.A./B.Sc. degree, preferably a good second class M.A./M.Sc. degree and a first or second class B.Ed. degree in both theory and practice. Direct admission to a two-year integrated course leading to the M. Ed. degree after at least a second class Bachelor's or Master's degree would be another way of attracting better and more promising candidates for the profession.

2.4 It would also be helpful if the M.Ed. degree is prescribed as a necessary qualification for certain posts like those of headmasters, district education officers and other supervisory personnel.

2.5 Incentives in the form of loans and scholarships should be available to meritorious students.

2.6 Under our present set-up, it is neither possible nor feasible to have an entirely independent staff for the B. Ed. and M.Ed. classes in the same college or university department. It is, therefore, desirable to ensure that teachers who teach M.Ed. classes are not normally over-burdened with supervision of the practice teaching of B.Ed. students.

2.7 Teaching at the M. Ed. level should be supplemented by tutorials and seminars.

2.8 In most universities the M.Ed. course is at present a whole-time course of one year's duration. An extension of the course would not be immediately feasible in view of financial and other difficulties. One solution of great promise is the introduction of integrated B.Ed. and M.Ed. courses. The details and *modus operandi* of such a course will have to be worked out.

2.9 Dissertation as part of the M.Ed. programme serves a useful purpose but at present it usually does not come up to a desirable standard. It would be worthwhile to consider the possibility of undertaking group projects in which individuals contribute their part of study and research. Another possible alternative to dissertation could be the writing of good text-books. Preparation of measuring tools and tests in school subjects would also be a good substitute.

2.10 The practice of placing successful candidates in three classes may be abolished for the M.Ed. examination. Instead, the universities may give pass and distinction marks, pass marks at 45% and distinction at

65%. At least 20% of the total marks for M.Ed. course should be earmarked for sessional work which should be assessed by committees consisting of faculty members. It should be possible to find ways and means of checking the objectivity, reliability and validity of internal marks. The *viva-voce* should be a necessary part of the postgraduate examinations. Besides gauging the depth of knowledge and mental alertness of the candidate, the *viva-voce* examination could also serve as a useful check on the reliability of internal assessment.

3. RESEARCH IN EDUCATION

3.1 No candidate should be admitted to a research course in Education unless he has shown sufficient evidence of his capacity for independent thinking and critical examination of theories and facts. A doctoral committee consisting of reputed scholars in the field of the candidate's research specialization should examine the candidate with regard to his general ability to pursue research on the topic selected by him. It would also be desirable to insist on one or two years' professional experience on the part of candidates before they are enrolled for research. The candidate should be allowed to supplicate for a research degree only in a department or place where adequate library facilities and qualified supervisors are available.

3.2 No person should be appointed as a supervisor unless he himself possesses a doctoral degree or has published recognized research work to his credit or is an eminent scholar in his field.

3.3 While fundamental research in Education should be encouraged as far as possible, it would be advisable for a large majority of candidates to take up practical problems facing the country that need urgent solution.

3.4 Sufficient attention will have to be given to the preparation of suitable instruments of research.

3.5 Suitable incentives in the form of fellowships and scholarships should be available to departments of Education in order to attract talented students to careers of research and fellowship.

3.6 It will be necessary to build up sound traditions of research in Education and also to educate the consumers of research viz., school teachers, principals, educational administrators etc. They should be guided by the findings of research in their day-to-day work.

3.7 In general, there should be three examiners to evaluate a doctoral dissertation. The examiners should be scholars of repute. If qualified persons are not available in the country, specialists could be invited from abroad to act as examiners. Every candidate must be examined by means of a *viva-voce* test. The candidate should be considered for the award of a doctoral degree only when the examiners recommend him unanimously.

3.8 It would be desirable to work out some criteria for the general guidance of examiners to achieve a high degree of objectivity in the evaluation of performance of candidates.

4. STAFF AND FACILITIES

4.1 Teachers of postgraduate departments of Education should have a sound academic background, some professional experience and adequate competence to guide and carry on research. The minimum qualifications for a postgraduate teacher in Education should be as under :

- (a) *Lecturer*—(i) At least a second class Master's degree in Education besides at least a second class Master's degree in any other subject.
- (ii) Three years' experience of teaching and/or administration and/or research.
- (b) *Reader*—(i) Same as for lecturer.
- (ii) Five years' experience of teaching and/or administration and research (Research would connote a research degree in Education or published work of recognised merit).
- (c) *Professor*—(i) Same as for lecturer plus a research degree.
- (ii) Ten years' experience of teaching/research and/or administration. The condition regarding experience may be relaxed in the case of a first class candidate who has published research work to his credit.

4.2 The teaching workload of a postgraduate lecturer in Education should not exceed 15 periods a week. The work of professors and readers should be distributed judiciously over teaching, research and guidance of research.

4.3 The number of senior posts in a department of Education should be about one third of the total strength of the teaching staff.

4.4 The training colleges should endeavour to enrich the secondary schools by offering them help and guidance in their work and also, if possible, by associating their teachers in some of the college activities. Well-qualified teachers of B.Ed. classes should also be encouraged to take up one or two papers in their fields of specialization at the M.Ed. level.

4.5 Research colloquium should be arranged from time to time where M.Ed. and Ph.D. students could discuss their research problems. It would be desirable to invite specialists from outside and from other departments to participate in such discussions.

4.6 Regional seminars and workshops may be organized by teacher training colleges or departments of Education on current problems of education and other professional problems. It may be possible for the U.G.C. to provide the necessary financial assistance for the purpose.

4.7 An attempt may be made by the unitary universities to institute a system of inter-departmental teaching in some subjects.

4.8 Students should be exposed to the influence of books and guided to cultivate sound reading habits. A college/department which offers postgraduate course in Education should provide for its library at least Rs. 50,000 phased suitably over a period of 5 years, and Rs. 5,000 annually.

4.9 The standard of accommodation of 5,000 to 7,000 sq. ft. laid down by the U.G.C. for a postgraduate department should be adopted by postgraduate teachers colleges/departments of Education also.

4.10 Part-time evening courses leading to the M.Ed. degree may be arranged wherever possible, especially for in-service teachers, to enable them to improve their professional qualifications. It is, however, necessary to ensure that this provision does not result in further deterioration of standards.

4.11 In order to attract better students to postgraduate studies in Education, the Ministry of Education and the Planning Commission may consider providing suitable loans and scholarships to deserving candidates for studies at the M.Ed. level.

APPENDICES

APPENDIX 1

Number of University Teaching Departments and Colleges in Education (Teachers' Training) and their intake capacity

<i>Year</i>	<i>Number of Uni- versity teach- ing deptts.</i>	<i>Number of Training Colleges</i>	<i>Colleges of General Edu- cation having Teacher Train- ing classes</i>	<i>Total</i>	<i>E N R O L M E N T</i> <i>(Diploma/Certificate students excluded)</i>		
					<i>Boys</i>	<i>Girls</i>	<i>Total</i>
1	2	3	4	5	6	7	8
1950-51	5	36	Not available	41	2391	1099	3490
1951-52	5	38	-do-	43	3033	1281	4314
1952-53	5	44	-do-	49	3762	1561	5323
1953-54	7	46	-do-	53	4262	1922	6184
1954-55	8	51	-do-	59	5227	2486	7713
1955-56	8	75	-do-	83	7391	2951	10342
1956-57	8	84	37	129	8261	3626	11887
1957-58	10	98	38	146	8929	4099	13028
1958-59	10	108	40	158	9190	4589	13779

SOURCE : *Education in Universities in India* by Ministry of Education, New Delhi

APPENDIX II

Enrolment by Stages of Instruction

<i>Year</i>	<i>Graduate</i>	<i>Post-graduate</i>	<i>Research</i>	<i>Total</i>
1950-51	3133	357*	(included in postgraduate)	3490
1951-52	3789	525*	-do-	4314
1952-53	4765	489	69	5323
1953-54	5500	600	84	6184
1954-55	6943	688	82	7713
1955-56	9585	674	83	10342
1956-57	11023	775	89	11887
1957-58	12163	777	88	13028
1958-59	12936	785	58	13779

SOURCE : *Education in Universities in India* by Ministry of Education, New Delhi.

A P P E N D I X III

Proportion of enrolment in Education to total enrolment in universities
and colleges including intermediate and pre-university students.

<i>Year</i>	<i>Percentage</i>
1950-51	1.0
1951-52	1.1
1952-53	1.2
1953-54	1.2
1954-55	1.3
1955-56	1.6
1956-57	1.7
1957-58	1.7
1958-59	1.6

(Diploma/Certificate students are included)

A P P E N D I X I V

Staff-student ratio excluding Diploma and Certificate students

<i>Year</i>	<i>Number of teachers</i>	<i>Number of students</i>	<i>Staff-student ratio</i>
1950-51	535	3490*	1:6.5
1951-52	633	4314*	1:6.8
1952-53	673	5254	1:7.8
1953-54	756	6100	1:8.1
1954-55	857	7631	1:8.9
1955-56	1087	10259	1:9.4
1956-57	1241	11798	1:9.5
1957-58	1430	12940	1:9.0
1958-59	1536	13721	1:8.9

*The figure includes research students.

SOURCE : *Education in universities in India* by Ministry of Education,
New Delhi.

APPENDIX V

Analysis of Examination Results

<i>Year</i>	<i>G R A D U A T E</i>			<i>POSTGRADUATE</i>		
	<i>Number of students appeared</i>	<i>Number of students passed</i>	<i>Pass Percentage</i>	<i>Number of students appeared</i>	<i>Number of students passed</i>	<i>Pass Percentage</i>
1950-51	3,587	2,955	82.4	288	213	74.0
1951-52	4,423	3,684	83.3	303	237	78.2
1952-53	5,298	4,569	86.2	293	223	76.1
1953-54	6,395	4,567	71.4	332	263	79.2
1954-55	8,719	6,831	78.3	397	315	79.3
1955-56	11,479	8,548	74.5	414	343	82.9
1956-57	13,895	10,625	76.5	448	364	81.3
1957-58	15,550	11,407	73.4	531	451	84.9
1958-59	15,246	12,118	79.5	597	494	82.7

SOURCE: *Education in Universities in India* by Ministry of Education, New Delhi.

A P P E N D I X VI

M.Ed. Syllabus (as recommended by the Chandigarh Conference)

(A) As regards the curriculum for the M. Ed. course, the following papers may be provided for compulsory study:

- (I) A comparative study of the Philosophy and Sociology of Education.
- (II) Advanced Educational Psychology.
- (III) Principles and Practice of Curriculum construction.

The Conference recommended that a course should also be offered in the methodology of educational research. The course should be a practical one and it should be related to, and based on, the various research dissertations taken up by the student. It could be most profitably organised in the form of periodical seminars and discussions in which the students and the staff participate. There should be no written examination in this course, but the candidates could be questioned on it at the time of their *viva-voce*.

(B) As regards the fields of specialization, the conference suggested three broad fields: (a) Teacher Education (b) Psychological Services and (c) Educational Administration.

Every candidate should be required to offer two papers in one selected field of specialization. The conference recommended the following papers in each field:

A. *Teacher Education*

1. Principles and Practice of Teacher Education.
2. History of Educational Thought.
3. Comparative Education.
4. Advanced Methodology of one School subject.

B. *Psychological Services*

1. Educational and Vocational Guidance.
2. Mental Hygiene and Child Guidance.
3. Educational Measurement and Evaluation.
4. Advanced Educational Statistics.

Appendix VI—(Contd.)

5. Advanced Course in Curriculum Construction.
6. Education of Handicapped Children.

C. Educational Administration

1. Principles of Educational Administration, Supervision and Finance.
(This will include a comparative study of educational administration of 3 or 4 selected countries)
2. Educational Administration in India (with its historical background and with special reference to one's own state).

A P P E N D I X VII

M.Ed. Syllabus (as recommended by the Poona Conference)

1. Philosophical and Sociological Foundations of Education.
2. One of the following:
 - (A) History of Educational Thought.
 - (B) Advanced Educational Psychology.
 - (C) Principles of Educational Administration.
 - (D) Curriculum Development.
- 3 & 4. Two papers selected from any one of the following groups:
 - (A) Social and Philosophical Foundations
 1. History of Educational Thought.
 2. Comparative Education.
 3. Advanced Philosophy of Education.
 4. Advanced Sociology of Education.
 5. Teacher Education.
 - (B) Psychological Services
 1. Advanced Educational Psychology.
 2. Educational and Vocational Guidance.
 3. Child Development.
 4. Mental Hygiene and Child Guidance.
 5. Social Psychology.
 6. Measurement and Evaluation in Education.
 7. Advanced Educational Statistics (or Experimental Education).
 8. Education of Exceptional Children.
 9. Education of Handicapped Children.
 - (C) Educational Administration
 1. Principles of Educational Administration, Supervision and Finance.
 2. Educational Administration in India.
 3. Educational Administration in a particular State.

Appendix VII—(Contd.)

4. Comparative study of Educational Administration.
 5. Problems of Indian Education.
- (D) Curriculum and Teaching
1. Curriculum Development.
 2. Advanced Methodology of One School subject.
 3. Teacher Education.
 4. Basic Education.
 5. Social Education.
5. Dissertation (related to the field of specialisation).
 6. A course in Research Methods (without a written examination in it).
- Note* : A paper selected under 2 may not be offered under 3 & 4.

APPENDIX VIII

Content of Courses at M. Ed./M.A. (Ed) Level (with a few exceptions total marks for each course are 100)

<i>Compulsory Courses</i>	<i>Name of the Universities</i>	<i>Total</i>
(i) Philosophy and Sociology of Education	Agra, Aligarh, Allahabad, Andhra, Banaras, Baroda, Bombay, Delhi, Gorakhpur, Gujarat, Jabalpur, Karnatak, Kerala, Lucknow, Madras, Nagpur, Osmania, Panjab, Poona, Rajasthan, S.V. Vidyapeeth, Saugar, Sri Venkateswara, Vikram, Utkal, Calcutta.	26
(ii) Advanced Educational Psychology	Allahabad, Andhra, Banaras, Baroda, Bombay, Calcutta, Delhi, Gorakhpur, Gujarat, Jabalpur, Karnatak, Kerala, Lucknow, Nagpur, Panjab, Poona, Rajasthan, S.V. Vidyapeeth, Saugar, Utkal, Vikram, Sri Venkateswara, Mysore.	23
(iii) Comparative Education with special reference to problems of Education in modern India	Allahabad, Andhra, Lucknow, Madras, Sri Venkateswara, Vikaram, Mysore	7
(iv) Psychology of Exceptional Children	Allahabad	1
(v) History of Indian Education	Poona, Banaras, Calcutta	3
(vi) A Comparative Study of Modern, Ancient and Mediaeval Educational Methods	Banaras, Calcutta	2

Appendix VIII—(Contd.)

<i>Compulsory Courses</i>	<i>Name of the Universities</i>	<i>Total</i>
(vii) Educational Psychology and Experimental Education	Agra, Banaras, Lucknow, Utkal, Calcutta	5
(viii) Methodology of Educational Research	Agra, Bombay, Delhi, Gorakhpur, Osmania, Panjab, Poona, Utkal, Calcutta	9
(ix) Problems of Secondary Education or Pre-primary and Basic Education	Gorakhpur, Lucknow	2
(x) Psychology of Adjustment	Lucknow	1
(xi) Optional Subject	Sri Venkateswara	1
(xii) Thesis	Madras, Lucknow	2
No.M.Ed./M.A. (Ed) classes	Burdwan, Jammu and Kashmir, Kurukshetra, Visva-Bharati, Varanaseya Sanskrit Vishwavidyalaya	5

APPENDIX IX

Titles of Optional Courses

<i>Optional Courses</i>	<i>Name of the Universities</i>	<i>Total</i>
1. Educational Psychology and Statistics	Aligarh, Allahabad	2
2. Advanced Educational Statistics	Aligarh, Calcutta	2
3. Experimental Education and Experimental Psychology	Agra, Allahabad, Banaras, Baroda, Bombay, Delhi, Gorakhpur, Karnatak, Nagpur, Poona, Rajasthan, S.V. Vidyapeeth, Sri Venkateswara, Mysore, Gujarat	15
4. Advanced Educational Psychology	Madras, Rajasthan	2
5. Techniques of Educational Research and Educational Statistics	Vikram, Utkal, Kerala	3
6. Comparative Education	Agra, Aligarh, Baroda, Bombay, Calcutta, Delhi, Gorakhpur, Gujarat, Karnatak, Osmania, Panjab, Poona, Rajasthan, S.V. Vidyapeeth, Nagpur, Utkal	16
7. Fundamentals of Educational Administration and Supervision	Agra, Aligarh, Andhra, Banaras, Baroda, Bombay, Calcutta, Delhi, Gujarat, Gorakhpur, Karnatak, Madras, Osmania, Poona, Panjab, Rajasthan, S.V. Vidyapeeth, Utkal, Vikram, Jabalpur, Saugar, Sri Venkateswara, Kerala	23
8. Educational Administration in India, England and U.S.A.	Aligarh, Jabalpur, Saugar, Nagpur, Kerala	5

Appendix IX—(Contd.)

<i>Optional Courses</i>	<i>Name of the Universities</i>	<i>Total</i>
9. Basic Education and Social Education	Andhra, Banaras, Osmania, Panjab, Sri Venkateswara, Utkal	6
10. Educational Sociology	Annamalai, Nagpur, Osmania, Rajasthan, Madras	5
11. School Organisation	Lucknow	1
12. Principles of Curriculum Development	Aligarh, Delhi, Panjab, Utkal	4
13. Developmental Psychology of Childhood and Adolescence	Aligarh, Osmania, Rajasthan	3
14. Evaluation and Measurement	Aligarh, Osmania, Panjab, Utkal	4
15. Educational Guidance	Aligarh, Lucknow, Kerala	3
16. General Education in Schools and Colleges	Aligarh	1
17. Advanced Methodology of Teaching	Aligarh, Agra, Gorakhpur, Kerala	4
18. Problems of Secondary and Higher Education in India	Aligarh, Lucknow	2
19. Vocational Guidance and Selection	Agra, Allahabad, Banaras, Delhi, Gorakhpur, Osmania, Utkal, Panjab, Rajasthan, Vikram	10
20. Nursery School Education	Andhra, Lucknow	2
21. The Education of Backward and Defective Children	Andhra, Sri Venkateswara	2
22. Adult (Social) Education	Andhra, Banaras, Sri Venkateswara, Utkal	4

Appendix IX—(Contd.)

<i>Optional Courses</i>	<i>Name of the Universities</i>	<i>Total</i>
23. Educational Tests, Measurements and Records	Andhra, Sri Venkateswara	2
24. Mental Hygiene and Child Guidance	Calcutta, Delhi, Osmania, Utkal	4
25. Teacher Education	Delhi, Vikram	2
26. Education in Modern India	Gujarat, Nagpur, S.V. Vidyapeeth	3
27. Educational and Social Measurements	Jabalpur, Saugar, Lucknow	3
28. Mental Testing	Lucknow	1
29. Education of Exceptional Children	Lucknow	1
30. Library Science	Lucknow	1
31. Physical Education	Lucknow	1
32. Cultural Transmission in Education	Osmania	1
33. Advanced Educational Philosophy	Rajasthan	1
34. History of Indian and Western Education	Aligarh, Annamalai, Andhra, Baroda, Bombay, Delhi, Gujarat, Karnatak, Rajasthan, Sri Venkateswara, Mysore, Madras, Gorakhpur, Jabalpur, Kerala, Saugar, Osmania, Nagpur, Utkal	19
35. Educational Classics	Calcutta	1
No.M.Ed/M.A. (Ed) classes	Burdwan, Jammu and Kashmir, Kuruksetra, Visva-Bharati, Varanaseya Sanskrit Vishwavidyalaya	5

APPENDIX X

Pattern of Compulsory and Optional Courses (M.Ed.)

<i>Name of University</i>	<i>No. of Compulsory Courses</i>	<i>No. of Optional Courses</i>	<i>No. of Necessary Optionals</i>	<i>Total No. of required courses</i>
1	2	3	4	5
1. Agra	3	6	1	4
2. Aligarh	1	13	3	4
3. Allahabad	4	3	1	5
4. Andhra	3	7	1	4
5. Annamalai	2	3	1	3
6. Banaras	4	6	1	5
7. Earoda	2	8	1	3
8. Bhagalpur	—	—	—	—
9. Bihar	—	—	—	—
10. Bombay	3	4	1	4
11. Burdwan	—	—	—	—
12. Calcutta	5	5	1	6
13. Delhi	3	8	2	5
14. Gauhati	—	—	—	—
15. Gorakhpur	4	6	1	5
16. Gujarat	2	5	1	3
17. Jabalpur	2	4	1	3
18. Jadavpur	—	—	—	—
19. Jammu & Kashmir	—	—	—	—
20. Karnatak	2	6	2	4
21. Kerala	2	6	3	5
22. Kuruksetra	—	—	—	—
23. Lucknow	7	9	1	8

APPENDIX X—(Contd.)

1	2	3	4	5
24. Madras	3	4	1	4
25. Marathwada	4	2	1	5
26. Mysore	2	4	2	4
27. Nagpur	2	5	2	4
28. Osmania	2	10	2	4
29. Panjab	3	6	2	5
30. Patna	—	—	—	—
31. Poona	4	3	1	5
32. Rajasthan	2	9	1	3
33. Ranchi	—	—	—	—
34. Roorkee	—	—	—	—
35. Varanaseya Sanskrit Vishwavidyalaya	—	—	—	—
36. S.N.D.T.	—	—	—	—
37. Saugar	2	4	2	4
38. Utkal	3	10	1	4
39. S.V. Vidyapeeth	2	4	1	3
40. Sri Venkateswara	4	7	1	5
41. Vikram	3	4	2	5
42. Visva-Bharati	—	—	—	—

APPENDIX XI

Specifications Prescribed For Master's Thesis In Education

- Aligarh Muslim University An educationally worthwhile topic—must be conducted under the supervision of the department. It carries 100 marks.
- Andhra University The dissertation must comply with the following conditions:
1. It must be satisfactory in respect of literary presentation as well as in other respects and should be in a form suitable for publication.
 2. It shall have bearing on some aspect of education and embody either (*i*) a record of original investigation or (*ii*) a critical analysis of existing data or (*iii*) a combination of both.
 3. The candidate shall indicate generally in his preface to the dissertation and in notes, the sources from which his information is taken, the extent to which he has availed himself of the work of others and the portions of the dissertation which he claims as his original work.
 4. Every dissertation shall be accompanied by a certificate signed by the teacher who guided the candidate in the preparation of thesis stating that the dissertation is the genuine work of the candidate and that it is worthy of examination.
- The dissertation shall be prepared under the direction of a postgraduate teacher approved by the University.
- Annamalai University The thesis is to be on a subject approved by the University. It shall embody the results of original investigation or a critical study of existing data or a combination of both.

The thesis shall be prepared under the direction of a teacher approved by the University. The subject proposed for the thesis shall ordinarily be related to one or other of the papers offered by the candidate.

Banaras Hindu University

Candidates offering a thesis shall do so on a subject approved by the head of the department of Education in the University. The thesis shall be prepared under the direction of a member of the department and submitted on or before the date fixed for its submission by the Standing Committee of the Academic Council.

The thesis shall be the candidate's own work embodying critical analysis of existing data or a record of his original investigation. The candidate shall indicate generally in his preface to his thesis the sources from which his information is taken, the extent to which he has availed himself of the work of others and the portion of his thesis in which he has availed himself of the work of others and the portion of his thesis which he claims as his original work.

The candidate shall pursue his investigation at Banaras Hindu University as a regular full-time student under the supervision of the head of the department or of a member of the staff to whom the candidate may be assigned by the head.

Candidates offering thesis (in lieu of full M. Ed. examination) shall produce evidence, satisfactory to the head of the department, of having done research work of merit previously.

The thesis must be satisfactory in respect of literary presentation as well as in other respects and should be in a form suitable for publication. It should be accompanied by a declaration that the thesis has not been previously submitted by him for a degree of any university. The candidate shall submit three printed or type-written copies of his thesis.

The thesis will be referred to a Board of Examiners consisting of two external and one internal examiner who will examine the thesis, and also conduct a *viva-voce* on the subject of the thesis. They will report individually whether the candidate's work is of sufficient merit to entitle him to obtain the degree of Master of Education.

Bombay University

1. M.Ed. examination by thesis

A candidate desiring to submit a thesis must have worked under the guidance of a recognised postgraduate teacher for at least two years subsequent to his passing the B.T. or B. Ed. examination. The thesis shall be the candidate's own work carried out under the guidance or supervision of the teacher and shall be either (i) a critical analysis of existing data, or (ii) a record of original investigations, or (iii) a combination of these, and shall be accompanied by a certificate signed by the teacher stating that the thesis is worthy of examination. The examination to be taken by thesis shall be on a subject connected with the history, theory, practice or administration of education.

Two months before submitting a thesis, a candidate shall forward to the registrar through the recognized teacher a statement giving the title and the synopsis of the thesis along with a fee of Rs. 75,

The thesis shall be referred for examination and report to not less than two and not more than three referees, to be appointed by the Syndicate, on the recommendation of the relevant Board of Studies and the Academic Council, one of the referees being always the guiding teacher.

2. M. Ed. examination by papers and dissertation

The dissertation shall not carry any marks. It shall be marked either as "Accepted" or "Rejected". The work on the dissertation shall be equivalent to the work on three papers.

The dissertation when submitted shall be accompanied by a certificate signed by the teacher stating that the dissertation is the candidate's own work carried out under his guidance or supervision and is worthy of examination.

Each dissertation shall be examined by the internal referee *i.e.* the university teacher who guided the candidate and an external referee appointed specifically for the purpose.

Baroda University

The dissertation is in part fulfilment of the M.Ed. course. It has to be on an educational topic approved by the Board of Studies in Education.

Calcutta University

No written regulations regarding the standard are maintained. It depends on the adjudicators.

Delhi University

Report on practical work or an essay on a subject connected with one of the papers offered by the candidate and selected with the approval of the head of the department.

Gorakhpur University	There is an external and an internal examiner who judge the merit.
Gujarat University	The Board of Studies in Education approves the topics of thesis offered by the candidates.
Jabalpur University	(1) The thesis should bear on any aspect of candidate's study embodying either (a) the result of his original research or (b) a critical presentation of existing data. (2) The candidate has to complete the prescribed course of laboratory practical.
Kerala University	Thesis shall embody the record of original investigation or a critical and systematic study of existing data of the subject chosen and approved by the Syndicate. It shall be a record of bonafide study and research carried out under supervision. Valuation is done by external examiners followed by <i>viva-voce</i> on methodology of research. Subject of thesis is decided in December and thesis has to be submitted six months after passing the qualifying examination in March —i.e., after at least 10 months work on it.
Lucknow University	Essay type of theses are not encouraged
Mysore University	(1) Only such persons as have at least 5 years' experience in recognised educational institutions shall be permitted to take the M.Ed. by thesis. (2) The candidate shall prepare the thesis on any approved subject under the direction of a person appointed by the University. (3) In the case of full-time students, the duration of the course shall be not less than one academic year and in the case of part-time students the duration of the course shall be not less than 2 years.

Only members of the staff of recognised educational institutions in Mysore city shall be eligible to work as part-time students.

Rajasthan University

(a) The dissertation should be genuinely the work of the candidate and fit to be examined.

(b) The candidate should have completed satisfactorily a course in the methodology and techniques of educational research.

Saugar University

(1) Thesis should bear on any aspect of study embodying either (a) the results of original research or (b) a critical presentation of existing data.

(2) The candidates have to complete the prescribed course of laboratory practical.

Sri Venkateswara

Each candidate shall be required to submit a dissertation in a subject approved by the University. The dissertation shall be prepared under the direction of a postgraduate teacher approved by the University and shall be submitted two weeks before the M.Ed. degree examination.

The subject proposed for the dissertation shall be submitted to the University for approval, not later than the 10th September in the case of full-time students and 10th December of the first year's course in the case of part-time students.

The dissertation must comply with the following conditions:

(a) It shall be on an educational topic and shall embody either

- (i) a record of original investigation or
- (ii) a critical analysis of existing data or
- (iii) a combination of both.

- (b) The candidate shall indicate in the preface
 - (i) the sources from which the information was taken.
 - (ii) the extent to which the work of others was availed of and
 - (iii) the portions which are the candidate's original work.
- (c) It must be satisfactory in respect of literary presentation as well as in other respects and should be in a form suitable for publication.

Nagpur University

The candidate shall submit with the dissertation:

- (a) a certificate from the person under whom he has prosecuted his research, stating:
 - (1) that the candidate has satisfactorily prosecuted his research for a period of not less than one academic year under conditions approved or prescribed by the faculty of Education,
 - (2) that the dissertation submitted by the candidate is the result of original work and is of a sufficiently high standard to warrant its presentation for examination; and
- (b) a declaration that the dissertation has not been previously submitted by him for a degree of any university.

Madras University

Candidates shall be required to submit a thesis on a subject approved by the University. The thesis shall embody the record of original investigation or a critical study of existing data or a combination of both. The thesis shall be prepared under the direction of a teacher approved by the University. The subject proposed for the thesis shall ordinarily be related to one or other of the papers offered by the student and shall be submitted

to the university not later than the 31st August of the year of admission to the course.

Osmania University

1. The subject of dissertation shall be approved by the Board of Studies in Education.
2. An abstract of the dissertation within 400 to 600 words must be submitted containing:
 - (a) Title of the dissertation
 - (b) Scope of the field covered
 - (c) Details of the data collected
 - (d) Technique of investigation adopted
 - (e) Important findings
 - (f) Suggestions for future study.
3. It will be valued independently by two examiners.

Poona University

A candidate desiring to submit a thesis must have worked under the guidance of a recognised postgraduate teacher for at least two years subsequent to his passing the B.T. examination. The thesis shall be the candidate's own work carried out under the guidance or supervision of the teacher and shall be either (i) a critical analysis of existing data, or (ii) a record of original investigation, or (iii) a combination of these, and shall be accompanied by a certificate signed by the teacher stating that the thesis is worthy of examination.

Sri Venkateswara

Every dissertation shall be accompanied by a certificate signed by the teacher who guided the candidate in the preparation of the dissertation stating that the dissertation is the genuine work of the candidate, and that it is worthy of examination.

No candidate shall be eligible for the degree of Master of Education unless he has com-

pleted the prescribed course of study in the University or in an affiliated college and has satisfied the examiners in the dissertation.

Utkal University

It should not normally exceed 100 pages. It should be either an original investigation or a critical exposition of published materials.

Vikram University

Candidates shall write a dissertation bearing on any aspect of their study embodying either (a) the result of their original research or (b) critical presentation of existing data.

APPENDIX XII

Specifications Prescribed For Ph.D Thesis in Education

1. Aligarh University Must show originality in thinking and planning and be significant in respect of the contribution it makes.
2. Allahabad University Not in particular.
3. Agra University It must be an original work and must throw an important light on the subject concerned. The two examiners (both external) must approve it.
4. Banaras University The thesis shall comply with the following conditions to merit the award of the degree:
 - (a) It must be a piece of research work, characterised either by the discovery of new facts or by a fresh approach towards interpretation of facts and theories, and shall state the material published or unpublished used by the candidate.
 - (b) It should evince the candidate's capacity for critical examination and judgement.
 - (c) It shall also be satisfactory so far as its literary presentation is concerned.
5. Baroda University It should be a real contribution to the advancement of knowledge.
6. Bombay University The dissertation shall not carry any marks. It shall be marked either as "Accepted" or Rejected". The work on the dissertation shall be equivalent to the work on three papers.

The dissertation when submitted shall be accompanied by a certificate signed by the the teacher referred to in R. 80 B stating that the dissertation is the candidate's own work

carried out under his guidance or supervision and is worthy of examination.

Each dissertation shall be examined by the internal referee i.e., the university teacher who guided the candidate and an external referee appointed specifically for the purpose.

7. Calcutta University

The candidate for the doctorate degree shall submit three type-written or printed copies of his thesis embodying the results of research and affording evidence of originality shown by him by the discovery of new facts or by a critical survey of facts or relations between facts discovered by others.

The candidate must produce along with the thesis a certificate from the teacher under whom he has worked, stating that he has fulfilled the requirements of the regulations relating to the nature and prescribed period of research work.

The candidate may also submit in support of his thesis the contents of any work he may have previously published but he shall not submit as his thesis any work for which a degree of distinction has been conferred on him in this or any other university. He will not, however, be precluded from incorporating any such work in a thesis covering a wider field, provided he indicates in a written statement the work so incorporated.

After considering the recommendation of the D. Phil. Degree Committee, the Syndicate shall refer the thesis to a board of three examiners including the teacher; if any, under whom the candidate has worked.

8. Delhi University

It must be a piece of research work characterised either by the discovery of new facts or by a fresh interpretation of facts or theories, in either case, it should evince the candidate's

- (2) Adequate field work should be done.
- (3) Reference should be made to standard works.
- (4) Inferences drawn and suggestions made should be based on facts collected.

- 15. Madras University The subject of research shall be one which relates to the main branch of knowledge for the postgraduate degree.
- 16. Panjab University The thesis shall be referred to two external examiners. Both the examiners shall read the thesis and all answer-papers, if any, as well as the report of the internal examiner and shall satisfy themselves that the thesis is the candidate's own work; and each shall present a report to the Syndicate stating whether, in his opinion, the candidate is, by reason of his attainments, a fit person to receive the degree of Doctor of Philosophy.
- 17. Poona University The report of the referees appointed for judging the thesis is accepted.
- 18. Rajasthan University It must be a piece of research work characterised either by the discovery of facts or by a fresh approach towards interpretation of facts or theories. In either case it should prove the candidate's capacity for critical examination and sound judgement. The candidate shall indicate, how far the thesis embodies the results of his own investigations and in what respects it appears to him to advance the study of the subject. It shall also be satisfactory in respect of its literary presentation and must be in a form suitable for publication.
- 19. Saugar University The research shall be a definite contribution to the existing knowledge in any branch or branches of knowledge and may be an original contribution, or criticism and a new interpretation of existing theories and data.

20. Utkal University
No specified conditions are laid down but the thesis should be of proper standard as judged by the examiners.
21. Vikram University
The thesis should be a piece of research work characterised either by the discovery of facts or by a fresh approach towards the interpretation of facts or theories. In either case it should evince the candidate's capacity for critical examination and sound judgment. Thesis should be the result of the candidate's own observation and advance knowledge in the subject. It should be a satisfactory literary presentation and in a form suitable for publication.

APPENDIX XIII

Questionnaire on Teacher Education at the Postgraduate Level

I. *Provision of facilities for B.Ed./M. Ed./M.A. (Ed.), Ph. D. Courses*

1. Does the university have a Faculty/Department of Education?
2. Is there any provision for teaching at the B.Ed./B.T. level at the headquarters?
3. Is there any provision for teaching at the B.Ed./B.T. level in affiliated colleges?
 - 3.1. If so, in how many affiliated colleges?
 - 3.2. Does the university permit the opening of B.T./B.Ed. classes in affiliated arts and science colleges under the administrative control of the principal of the college concerned?
 - 3.3. If so, how many affiliated arts and science colleges have opened B.T./B.Ed. classes?
4. Is there any provision for teaching at the M.Ed. level at the university headquarters?
5. Is there any provision for teaching at the M.Ed. level in affiliated colleges?
 - 5.1. If so, in how many affiliated colleges?
6. Is there any provision of facilities for Ph. D. degree at the university headquarters?
7. Is there any provision of facilities for Ph.D. degree in affiliated colleges? If so, in how many?

II. *Content of Courses at the M. Ed./M.A. (Ed.) Level*

8. Please list below the titles of compulsory courses with total examination marks allotted to each.
9. Please list below the titles of optional courses with total examination marks allotted to each.
10. How many optional courses listed above, has a candidate to offer for the M.Ed./M.A. (Ed.) examination?

11. Is there any provision for taking the M.Ed./M.A.(Ed.) degree by a research thesis without offering any compulsory or optional papers.

III. *Thesis at the M.Ed./M.A. (Ed.) Level*

12. Does the university provide for a thesis at the postgraduate examination in Education?
13. Is the thesis compulsory or optional?
14. Does the university have any prescribed specification or standard for the thesis?
15. If so, please give the details below or on a sheet which may be attached.
16. What is the maximum number of theses that a teacher may guide?

IV. *Duration of the M.Ed./M.A. (Ed.) Course*

17. Is it a course of one academic session (9-10 months)?
18. Is it a course of two academic sessions (18-20 months)?
19. Is it a part-time or evening course?
- 19.1. If so, how many lectures are given?
- 19.2. Over how many weeks are these lectures distributed?

V. *Minimum Qualification of Teachers of M.Ed./M.A. (Ed.) Classes*

20. *Lecturers*

- 20.1. Academic qualification with division.
- 20.2. Professional qualification with division.
- 20.3. Number of years of professional experience.

21. *Readers*

- 21.1. Academic qualification with division.
- 21.2. Professional qualification with division.
- 21.3. Number of years of professional experience.

22. *Professors*

- 22.1. Academic qualification with division.
- 22.2. Professional qualification with division.
- 22.3. Number of years of professional experience.

VI. *Entrance Qualification for Postgraduate Students in Education M.Ed./M.A. (Ed.)*

23. Minimum academic qualification.
24. Minimum professional qualification.
25. Minimum years of professional experience.

VII. *Teacher-Pupil Ratio*

26. What is the prescribed teacher-pupil ratio at the B.Ed./B.T. level?
27. What is the prescribed teacher-pupil ratio at the M.Ed./M.A. (Ed.) level?
- 28.1. Has the university taken notice of any breach of such prescription?
- 28.2. If so, in how many cases?
- 28.3. Was any disciplinary action taken in respect of them?

VIII. *Library Facilities*

29. Has the university prescribed any minimum requirements for an adequate library for a college/department offering post-graduate courses in Education?
30. If so, please detail them as under:
 - 30.1. In terms of number of books.
 - 30.2. In terms of non-recurring and annual recurring budget.

IX. *Examination at the M.Ed./M.A. (Ed.) level*

31. Is the examination wholly by papers?
32. Is the examination partly by papers and partly by thesis?
 - 32.1. If so, what is the total of marks allotted to written papers?
 - 32.2. What is the total of marks allotted to the thesis?
33. Is there a *viva-voce* examination on the thesis?
34. Is there any internal assessment of the regular class work?
 - 34.1. If so, what percentage of marks in each paper are allotted for internal assessment?
 - 34.2. Are the marks gained in internal assessment added to the total or shown separately?
35. Is there any internal assessment of the thesis?

- 35.1. If so, what percentage of marks specified for the thesis are allotted for internal assessment?
- 35.2. Are the marks gained in internal assessment in the thesis added to the total or shown separately?
- 35.3. What is the minimum for a pass in the course work?
- 35.3.1. What is the minimum for a pass in the thesis?
- 35.4. Is the division shown separately for the course work and the thesis?
- 35.5. What percentage of marks qualifies a candidate for first class?

Course Work

Thesis

Aggregate

Second class or pass

Course Work

Thesis

Aggregate

X. *Provision of Facilities for Ph.D. Degree*

- 36. What is the minimum admission qualification of candidates for Ph.D. degree?
- 36.1. Academic qualification.
- 36.2. Professional qualification.
- 36.3. Nature and duration of professional experience.
- 37. In addition to the dissertation what other requirements do candidates for the Ph.D. degree have to fulfil?
- 38.1. Does the Ph.D. dissertation have to conform to any specified standards?
- 38.2. If so, please list the same in details.
- 38.3. What are the conditions of acceptance of a Ph.D. dissertation in Education?
- 38.4. Does a candidate for Ph.D. degree have a *viva-voce* examination on his dissertation?

APPENDIX XIV

Summary of Qualifications of Applicants for Admission to the M. Ed. Class

<i>B.A. I</i>	No.	<i>Percentage</i>
B.A. I with M.A. I	1	
B.A. I with M.A. II	0	
B.A. I with M.A. III	2	
B.A. I only	2	1. 3
	<hr style="width: 50%; margin: 0 auto;"/> 5	
 <i>B.A. II</i>		
B.A. II with M.A. II	38	10.00
B.A. II with M.A. III	28	7. 4
B.A. II only	41	10. 8
	<hr style="width: 50%; margin: 0 auto;"/> 107	<hr style="width: 50%; margin: 0 auto;"/> 28. 2
 <i>B.A. III</i>		
B.A. III with M.A. II	45	11.85
B.A. III with M.A. III	89	23.40
B.A. III only	134	32.25
	<hr style="width: 50%; margin: 0 auto;"/> 268	<hr style="width: 50%; margin: 0 auto;"/> 70. 5
	<hr style="width: 50%; margin: 0 auto;"/> Total	<hr style="width: 50%; margin: 0 auto;"/> 380
 <i>Division in</i>		
<i>B. Ed. (Theory)</i>		
1st ... ..	...	2%
2nd ... ..	...	38%
3rd ... ..	...	60%

*Selected for Admission to the M. Ed. class**B.A. I*

M.A. I	...	...	...	1	
M.A. II	...	...	...	0	
M.A. III	...	...	...	0	
B.A. I only		...	...	2	
				<u>3</u>	3%

B.A. II

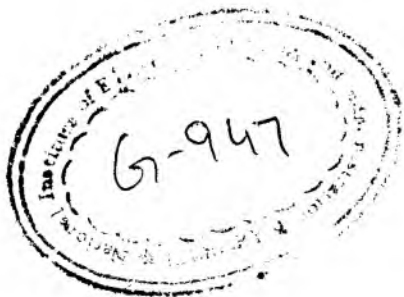
M.A. I	...	...	...	—
M.A. II	...	...	...	30	
M.A. III	...	...	...	12	
B.A. II only	...	...	...	16	
				<u>58</u>	50%

B.A. III

M.A. I	...	...	...	—
M.A. II	...	...	...	20	
M.A. III	...	...	...	14	
B.A. III only		...	...	15	
				<u>49</u>	47%

Division in B. Ed. (Theory) (Division of students selected for admission to M.Ed. class)

1st	8	7.3
2nd	68	61.8
3rd	34	30.9
				<u>110</u>	



NIEPA



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