

Educational research

121. Primary teachers training institutions and teachers training colleges have limited their work to the training of primary and secondary school teachers. They have not engaged in education research. As a result, instruction has become rigid and stereotyped. The staff for the primary teachers training institutions is recruited from among the graduates of the teachers' colleges who have had several years of experience of teaching in high schools. This tends to be a sterile system because nothing new is being added. The result is seen in unsatisfactory teaching, in both primary and secondary schools. The demand for educational expansion requires additional primary teachers training institutions and teachers' colleges, but the quality of teaching will not improve without an infusion of new ideas, new methods and new information based upon research. The training institutions need reorientation and new inspiration. To this end each university should be encouraged to develop and strengthen a faculty and a department of education and to prepare students for the master's degree in education. As rapidly as possible, the staffs of the teacher training colleges and the primary teachers training institutions should be recruited from among these masters of education.

122. In addition to this extension of teacher education, it is proposed that at least one university in each Wing establish, within its department of education, an Institute for Educational Research. Each Institute should be staffed with a small group of highly qualified research professors and it should have funds to support research projects, issue publications and hold conferences. The Ph.D. degree in education should be offered by the departments in which the Institutes are established. The chief functions of the Institute would be :

- (a) To foster and conduct research in educational methodology, curriculum development and testing, with particular reference to the needs and capabilities of the children.
- (b) To publish the results of its research and to serve as a clearing house for information about educational development at home and abroad.
- (c) To maintain liaison with the colleges and primary teachers training institutions for the purposes of sharing information about problems and trends and of providing guidance in the improvement of their curricula, text books and instructional methods and of sponsoring conferences of the staff of teachers training institutions, head masters and principals.
- (d) To train specialists in the several branches of education for teaching, research and administration ; in curriculum, primary education, testing, vocational education, methods of teaching, supervision, etc.

123. The object of this emphasis on research and leadership in teacher education is to infuse new life and inspiration into the teacher training institutions and, through them, into the teaching profession. Reorientation of education, for which there is a universal demand in the country, must be a slow process and has necessarily to be started with the teachers. All are insistent that the schools of the future must release the inherent intellectual and manual creativity of our children, imbue their minds with our spiritual and moral values, familiarise them with democratic processes and acquaint them with the possibilities of social reconstruction. All are emphatic that present teaching methods and materials, devised in the past for another purpose will not achieve these ends. The teachers cannot change their methods on order ; they can make improvements only if trained in the techniques and if given constructive guidance and supervision. The responsibility for this teacher training and assistance falls heavily upon the teacher training institutions ; the old stilyshed courses in educational history, theory and methods will not suffice. The teacher, formerly trained to teach children by syllabus only must now be shown how to relate the learning process to high moral standards, to family and community living and aspirations and to the genius of each child.

124. As the institutes for educational research develop their programmes, they should be able to help the colleges and primary teachers training institutions renovate their old courses and substitute new ones, based on knowledge of our psychology and environment. University graduates in education will provide the future staff of these institutions. Many junior and other lecturers in the universities, colleges and primary teachers training institutions are not sufficiently committed to the profession of education. The more intensive and

advanced training of college and normal school teachers at the M.A. and Ph.D. levels will help to alleviate this situation. Ph.D. students may be used during their courses of study to teach courses and perform other services for colleges and primary teachers training institutions. From the beginning then, and increasingly with time, the Institutes should be able to inspire and lead the educational profession to a realisation and accomplishment of its high mission.

VII

ORGANIZATION AND ADMINISTRATION OF HIGHER EDUCATION

125. The strategic point in education lies in the colleges and universities. These institutions set the tone for primary, secondary and specialized education. They train the teachers, lawyers, doctors, engineers, scientists, philosophers, agriculturists, businessmen and government officials who provide leadership and establish the standards for moral, economic and social life. They are responsible for conserving knowledge, for keeping abreast of new knowledge and for adding to knowledge through research. Hence, our most diligent attention must be directed towards higher education. Such attention will be rewarded by the most immediate results in the implementation of the entire development Plan, and will bring the most lasting results in the structure and excellence of education, public administration, science, agriculture, industry and business.

Progress since Independence

126. The number of colleges in the country increased from 90 in 1948-49 to 148 in 1954-55. Of the 148 colleges, 114 are degree colleges, 11 of which offer post-graduate work to the master's level and 34 are intermediate colleges. The degree colleges also offer work at the intermediate level (the eleventh and twelfth years). Their combined enrolment in 1954-55 was 64,000—7.0 per cent of those in high schools and 1.4 per cent of those in primary schools. Twenty-seven of the intermediate colleges and seventy of the degree colleges are private—66 per cent of the total. The government colleges are financed and managed by the Provincial Governments through the departments of education, while professional colleges in engineering, agriculture, medicine are usually financed and managed by Government through the ministries of public works, agriculture and health. The private colleges are subsidized by government grants.

127. Our colleges do not hold their own examinations or grant their own degrees, as was the custom in the Muslim system of education in India. These are functions performed by the universities. This practice in higher education was established by the Wood Memorandum of 1854 which provided that universities be created with the function of conferring degrees or diplomas upon persons who had pursued a course of study at an affiliated institution and passed a prescribed examination. Although there was incidental provision for such universities to create professorships and offer instruction in various branches of learning, universities in India for almost thirty years continued to be purely affiliating bodies.

128. These universities had their origin in the Macaulay Minute and the Bentinck Resolution of 1835. The Bentinck Resolution stated that the "great object of the British Government ought to be the promotion of European literature and science amongst the natives of India and that all funds appropriated for the purposes of education would be employed on English education alone". The universities were modelled by the British upon the University of London. English was established as the medium of instruction and financial support was withdrawn from the madrasahs. Hence there was a sharp break in the pattern of higher education as encouraged by the Muslims from the middle ages, represented by madrasahs (colleges) which offered instruction in grammar, rhetoric, logic, geometry, algebra, astronomy, natural philosophy, medicine, theology and poetry.

129. At Independence, there were only two well-established universities—Punjab and Dacca, although a third, the University of Sind, had been authorised a few months before. There are now six universities, all of them authorised to perform examining, affiliating and teaching functions.

130. *Punjab University* at Lahore, established in 1882, is our oldest university. This university is primarily an examining and affiliating institution with only three colleges of its own—law, commerce and oriental languages. However, it offers post-graduate instruction in various fields, and seven new departments have been added since Independence. Forty-five colleges are affiliated to this University.

131. *The University of Dacca*, established in 1921, was a teaching and residential university until Independence, when it was made also the affiliating institution for all colleges in East Pakistan. The university suffered a heavy loss by the migration of non-Muslim teaching staff in 1947, but has managed to continue its instruction programme. Fifty-six (eight professional and forty-eight non-professional) colleges are affiliated to the University. Six new departments have been created since Independence.

132. *The University of Sind* was established in 1947, only a few months before Independence. Created as an affiliating and examining University, it also provides academic instruction for a small number of resident students. The University was moved to Hyderabad in 1951 as one of the several consequences of the establishment of the Federal Capital at Karachi. Sixteen (five professional and eleven non-professional) colleges are affiliated to the University. Sixteen teaching departments offer post-graduate instruction.

133. *The University of Karachi* was chartered in 1950 by special legislation with the Governor-General as Chancellor. It is an affiliating and examining University and also provides instruction in several fields. There are now sixteen colleges (five professional and eleven non-professional) affiliated to this institution. Post-graduate courses are offered in twenty subjects.

134. *The University of Peshawar* was established as a residential and affiliating institution in 1950. The jurisdiction of the University was extended to the States of Swat, Dir and Chitral in 1951. A new campus complete with buildings has been constructed. Peshawar University is unique in that the professional colleges are integral parts of the University and under its administrative and financial control. Fifteen (four professional and eleven non-professional) colleges are affiliated. The University now has fourteen departments.

135. *Rajshahi University*, established in 1953, is our youngest University. It is the affiliating and examining authority for twenty colleges in the north of East Pakistan. This University was greatly strengthened by many Muslim teachers from the University of Calcutta. Residential facilities are now being constructed.

136. The Pakistan Educational Conference of 1947, through its University Education Committee, expressed great dissatisfaction with higher education :

“ It has been felt for a long time that the system of University education comprising the syllabuses, curricula, examinations and teaching methods is unsatisfactory and requires thorough review in order to bring it into line with our educational ideals and needs. Such reviews have been undertaken in the past by various committees and Commissions, but few practical steps have been taken to implement their recommendations. The Committee strongly feels that we should, without delay, lay the foundation of our educational system anew and urge that Government and Universities should take immediate action towards that end.”

137. The Six-Year Plan for Educational Development in Pakistan criticised the existing arrangements for higher education in equally strong terms, stating that academic standards were low, that buildings and equipment were inadequate and that teaching personnel was on the whole poor. Special reference was made to the deficiencies in science instruction. The universities were characterised as being examination-ridden and as having failed in their fundamental function of promoting research.

138. It is not difficult to understand the basis of these indictments. First of all, we have greater expectations of our higher education system than ever before. A system developed by a colonial government and restricted to a small proportion of the population could not hope to serve the new nation, no matter how well financed or administered. The system was, in fact, neither well financed nor particularly well administered ; and what was essentially wrong was its concern with the form rather than with the substance and quality of learning.

At Independence, to make matters worse, hundreds of teachers went over to India and subsequently to government and industry. Many students withdrew, but many more refugee students clamoured for admission. The excitement of political and social change threw students and teachers into a state of turmoil. Since that time the physical expansion of colleges and universities has far out-stripped the qualitative development of education.

139. Moreover, the colonial system of higher education was designed to supplant the traditions of Muslim learning by those of English and European learning, to emphasize curricula which would best prepare young men through literary education for posts in colonial business and government, and to impose a university and examination system lifted bodily out of the English practice then in vogue. While the English practice was modified substantially with time in the country of its origin, no improvements or modifications were made in colonial India ; those that were made tended to accentuate some of its weakest features. We recognise the rich alluvium deposited by the great stream of Western thought and scientific achievement ; but our educational development must be firmly rooted in the enduring sub-soil of our own culture.

140. The Plan period must be a period of consolidation, improvement and raising of standards. Some very major changes must be brought about to achieve the kind of higher education which people are demanding. These changes are of two kinds (a) improvement in the content and quality of instruction and research, discussed in the next section, and (b) reorganisation of the administration and the financing of institutions. The kinds of changes which need to be made in the organisation and administration of higher education have received much attention from such bodies as the Inter-University Board, the Punjab University Commission and the Central Advisory Board for Education. It remains to crystallize the suggestions made and to undertake vigorously the task of introducing them.

An integrated system of higher education

141. The two requisites of a stable, vigorous and economically sound system of higher education are : (a) a form of co-ordination and integration among the colleges and universities which encourages the development of strength and high standards and avoids wasteful competition and duplication, and (b) freedom, within the limits of general government policy, for the colleges and universities to make administrative and academic decisions pertaining to the conduct of educational institutions which will preserve and promote the spirit of scholarship and research. A corollary of these principles is that the administrative and policy heads of the colleges and universities must be held accountable for the excellence of their administration, and the moral and intellectual standards of their institutions.

142. Neither of these requisites of a sound system of higher education exists in our country today. With a few notable exceptions, the responsibility for the management of higher education is so diffused that it is difficult, if not impossible, to assign accountability for existing shortcomings. Higher education consists of poorly co-ordinated groups of private colleges, government arts and science colleges, and government professional colleges. For the most part, the professional colleges are branches of the departments concerned : engineering colleges of the departments of public works, medical colleges of the departments of health, teacher training colleges of the departments of education, and agricultural colleges of the department of agriculture. Although the Government arts and science colleges are in the department of education, private colleges also are subject to close government supervision as a condition of receiving grants upon which almost all of them are dependent. Although there are varying methods and degrees of control, in the last analysis, the several government departments independently decide the budgets of the several colleges and select the teaching as well as the administrative staffs. Thus, there are not one but several systems of higher education in each Province. New colleges and new courses may be and are established without consideration for existing facilities or needs. Standards of equipment, personnel and instruction vary widely. Developed without sufficient regard for each other, the colleges are not in a position to share teachers, students, courses and facilities, which results in much unnecessary duplication and less than full use of existing resources.

143. This situation is unsatisfactory because of the inherent wastage of money, facilities and personnel. It is educationally unsatisfactory, in addition, because until institutions of higher education become primarily educational in nature and an integral part of a unified system of education rather than adjuncts of government departments with limited functions, they cannot achieve their highest purpose of intellectual, academic and professional growth and service to the country. The present system is a direct inheritance of the colonial system, which had the purpose of training people for specific jobs by specific government agencies. The "professional" colleges were established, and survive, as high-grade technical branches of government departments with the particular and narrow function of training students for established positions in those and related departments. In an independent country, however, which desires to develop its men and women for a fuller and higher life, it is the function of a professional college to prepare its students not only for specific technical duties essentially limited in scope and purpose but also for playing their full part as members of progressive society and for a successful and fruitful life individually and socially, with capability for their own growth as well as for contributing to the growth of the community.

144. The integration of higher education into one system, in which educational standards and values are preserved and promoted, can be achieved by affirming the leadership of universities and making it real and effective as well as progressive and beneficial. The appointment of Grants Committees with the duty of evaluating and originating long range plans and assisting the universities and colleges financially, educationally and administratively to put them into effect, would create favourable conditions for initiating and accelerating this process. We do not yet foresee the time when the individual colleges would emerge as independent institutions depending for the support of the community on their ceaseless effort to improve their standards by trying new ways of approach through studies and experimentation. Our universities will continue to command extensive territorial jurisdiction for the purpose of prescribing standards, curricula and syllabi and holding examinations. Simultaneously they will continue to conduct their activities in a directly constructive manner by developing their teaching and research functions on a broad and comprehensive basis at their respective headquarters centres.

We consider that the universities should be supported in promoting an integrated system on the following lines :

- (1) They should be put unambiguously in the position of leadership in organising and developing an integrated system at their headquarters in which maximum use is made of all resources whether in the colleges or in the universities. Post-graduate teaching and research should be directly under their control in order that fullest use is made of the limited resources in terms of libraries, laboratories and superior staff.
- (2) The Peshawar University offers a model on which professional colleges located in university centres should be incorporated in higher educational organisation. This measure is feasible and should be adopted in the interest of preserving and promoting educational values.
- (3) The Leadership to be provided by the universities for institutions which cannot form part of the headquarters organisation has to be developed in accordance with its functions and responsibilities as a purely affiliating and examining body. The universities should be suitably staffed to enable them to perform their functions in this respect efficiently. It will be concerned with three types of institutions each of which requires separate treatment : private arts and science colleges, government arts and science colleges, and professional colleges. We suggest that their problems could be approached on the following lines :
 - (a) The universities should have proper arrangements for the regular inspection of all institutions. The reports should be followed up by effective action.
 - (b) It is particularly necessary in respect of private colleges that conditions of service of their teaching staff should be fixed with the approval of the university. Members of the staff should have the right of appeal to the university against measures of punishment.
 - (c) The university should have the right to send its representatives to the meetings of managing bodies to explain its views.

- (d) Whenever possible, professional colleges should be transferred to the control of universities to emphasise and develop their character as educational institutions instead of training adjuncts to technical departments.
- (e) For government colleges, the Ministry of Education should set up advisory committees with representatives of the university, the government and the institutions themselves to consider all problems concerning them and to make recommendations to the government. This is desirable to ensure that the values and principles which inspire our higher educational system are not denied to any of its parts. The universities are agents of the governments and the nation and not of the departments of government, as such they must be held responsible for guarding, promoting and developing the values and principles which inspire the nation. It is inevitable that a government department should make, by and large, an administrative approach only which is inadequate. All talent and learning available to the nation for guiding and developing education on the desired lines should be concentrated in one place. This place positively and undeniably is the university : the potential centre of learning and research through which alone the nation can hope to express and develop its spiritual and moral aspirations and ideals. The shortcomings of universities are our own shortcomings and whatever they may be, the failure to support them must be regarded as a disservice to the present and future generations of Pakistan.
- (f) All grants to private colleges should be channelled through the universities. Allotments to government colleges should be fixed on the recommendations of the advisory committees we have suggested. With the formation of University Grants Committees the system will need some adjustment but the essential principle of the leadership of universities should be preserved.

The measures we have outlined above are in conformity with the views held and expressed by our leading educationists. We are confident that action on these lines will help establish an integrated educational system in the country to the benefit of the nation.

Clear distribution of responsibility

145. This proposal for a co-ordinated higher education under the leadership of the universities, requires universities which have the power, the responsibility and the strength to furnish the necessary leadership in achieving excellence in college and university education. The universities are organised as separate statutory bodies and their autonomy is recognised in principle. In practice, however, they are meticulously controlled by the government and are so unwieldy in administration that vigorous action to correct deficiencies is difficult to initiate and accountability for failure is almost impossible to assign.

146. It is proposed that the universities be freed from the detailed administrative control of government departments, that they be provided with effective and responsible managing bodies, and that they be held accountable to government for adherence to the policies which have been mutually agreed upon by the government and the universities for excellence of performance. These proposals can be implemented by :

- (a) Laying down (i) clear but broad policies which the universities must follow and (ii) programmes and targets which they have to achieve.
- (b) Authorising each university to enact its own statutes concerning the formation of departments, standards of affiliation, courses of study, modes of administration, etc., to handle its own financial transactions and to make its own appointments—all without prior government approval but within the limits of policies and programmes sanctioned by the Government.
- (c) Vesting these and other powers for the conduct of university affairs in a reconstituted syndicate of a reasonable size. It may contain not more than two or three persons holding government offices but none from amongst those responsible directly for advising the government on the policies and programmes of higher education. The senate, which is a large and representative body, should meet annually to review the budget and programme and to make advisory recommendations to the syndicate.

- (d) Holding the syndicate accountable to the government for the discharge of its functions. For this purpose, it should prepare and publish an annual report and financial statement, publish its statutes, and announce its appointments and other decisions of importance. Official nominees on the senate and syndicate should be fully aware of the approved policies and programmes, and they should be held responsible for making a report to the government of serious failures on the part of the university. The government should retain the power of revising, within a reasonable period, any decision of the syndicate on the ground that it transgresses a clear provision of the law, or involves an abuse of power likely to result in gross injustice or maladministration, or is calculated to defeat the approved policies and programmes. Before taking such action the government should give an opportunity to the university to explain the reasons for its decision. The orders of the Government to reverse a decision of the university should be passed only with the approval of the cabinet and should be published with a clear and full statement of reasons.

147. We believe that the introduction of this system of checks and balances will tend to inculcate the needed sense of responsibility on the part of universities and affirm unequivocally the responsibility of the government if any maladministration or abuse of power takes place. The provision for publishing the decisions of the government will ensure that they will be reached after due care and deliberation and at the highest level. We wish to emphasise that our proposal that the decisions of the university should not be set aside except by orders of the cabinet, and that they should be published for general information with a full statement of reasons, is an essential part of a system in which the universities will be free to perform their responsibilities to the nation with a due sense of responsibility and in which the government cannot disclaim responsibility if things go seriously wrong and the prescribed programmes fail to be achieved.

148. There are now six universities, four of which are of recent origin. They are adding teaching departments rapidly, perhaps too rapidly, and have further plans for expansion without sufficient consideration for the situation of higher education as a whole. Schemes to create still other universities should be held in abeyance until the existing universities gain the needed strength in facilities and personnel. It would be a mistake to spread the limited staff and equipment resources available for universities even more thinly. The very large requirements of new university buildings and campuses must be met over a period of years and in conjunction with the studies of needs in higher education. In this connection, the location of existing as well as new universities must be carefully considered. The feasibility and soundness of schemes to move universities to new campuses are usually open to serious doubt because such locations are unsuited to the function of co-ordinating the use of college resources, because of excessive initial and continuing costs, and because of the further handicaps that would be created for the poorer students.

149. The Pakistan Educational Conference of 1947 was fully alive to these problems when it recommended the creation of the Inter-University Board. That Board, brought into being by a resolution of the Ministry of Education in 1948, is composed of the Vice-Chancellor and two other representatives from each university. It is charged with the duty of exchange of information and views among the universities : liaison with foreign universities ; encouragement of private endowments ; removal of inter-provincial barriers and inter-university competition ; periodic visits to the universities with a view to co-ordinating their activities ; equalisation of degrees and diplomas ; standardisation of curricula and syllabi ; inter-change of staff and students ; and co-ordination of facilities for scientific and industrial research. Although this Board meets annually, and sometimes oftener to consider common problems of policy and practice, none of its specific functions has been effectively discharged. One of the main reasons for this failure is that the full-time Secretary and staff proposed in the resolution have not been provided. This staff should be created promptly. Also, the Board should require to publish annual reports of its activities and progress in accomplishing the highly desirable purposes for which it was created. The Central Government should consider these reports in consultation with the Provincial Governments, communicate their comments to the Board and publish them for public information.

Financing higher education

150. Another major reason for lack of progress in inter-university co-ordination and planning is that these functions are not related to the budget process. Unless there is insistence that the contemplated planning and co-ordination be accomplished before budget proposals are made, there is no way to assure that those processes will be satisfactorily completed. We propose the creation of provincial university grants committees and a central university grants commission to meet this and other deficiencies in the control and financing of higher education.

151. Each Province should create a university grants committee provided with a whole time chairman and a secretary. Its functions would be :

- (a) To prepare long-range plans for the development of higher education and to submit them to the government for approval.
- (b) To advise the government in respect of the budget requirements of higher education with due regard to the long-range plans and suggest the amounts of recurring and non-recurring grants to be made.
- (c) To receive the government grant in block and distribute it among the various beneficiaries to meet their needs on the basis of the actual progress of their plans. The functions of the committees will extend to all institutions, universities, arts and science colleges, and professional colleges, whether private or public. The grants should be made for a period of three years to guarantee the undisturbed fulfilment of the plans to which they are related. At the same time, care should be taken to prevent the funds being retained by any institution in excess of immediate needs.

152. In order to discharge its functions, the committee should be empowered to visit the institutions and to call for any information or documents it requires. The committee should also be empowered to appoint sub-committees of non-member experts to advise it on the several aspects of its works. One such sub-committee should develop long-range building plans in keeping with authorised schemes of development. The committee should retain the services of a firm of consulting architects to supervise and assist with the design of building and campuses. No new specialized college or university departments should be approved without a finding that such colleges or departments do not unnecessarily duplicate institutions already available and that they are consistent with arrangements for university specialisation worked out by the Inter-University Board.

153. These grants committees should assist each college and university to increase its financial resources from private donations and endowments. Higher education the world over has been developed by an informal partnership of government and private enterprise. It is highly desirable that each institution develop an endowment fund from unrestricted private gifts, the income from which may be used to enrich the institution's facilities and curriculum. Such gifts should be solicited from graduates, and from business and industry. In addition, systematic relationship should be entered into with the various segments of industry to provide financial support for specific schemes of mutual benefit to industry and education. Grants might be made for scholarship and teaching chairs in particular fields, or for research of immediate concern. A co-ordinated approach to private philanthropy is desirable to avoid undue competition among the colleges and to give assurance to the donors that their contributions will be wisely spent.

154. In this connection it should be noted that private colleges make up 66 per cent of the total number of colleges. It is hoped that as time goes by an even larger percentage of college education will be privately supported. This arrangement will contribute to the freedom of experimentation which is the essence of higher education : it will broaden the base of citizen participation and support, and will contribute to the autonomy of higher education. Government grants to private colleges, now made on an *ad hoc* and irregular basis, should be systematised and related to a national purpose ; they should be made only for temporary periods. The private colleges should be encouraged and aided to stand on their own feet rather than to remain dependent upon government grants.

155. Although the universities, with the exception of Karachi, are financed primarily by the Provinces, the Centre has been making *ad hoc* grants in support of university education. It is clear that such financial assistance must continue to supplement the resources of the Provincial Governments to give concrete recognition to the Federal Government's special interest in higher education and to encourage development in conformity with the over-all social and economic plans of the country. It is proposed that a central university grants commission be created composed of a chairman and four members, two from West Pakistan and two from East Pakistan, distinguished by scientific, professional and intellectual achievement. The chairman and the secretary should be whole-time officers. No member should concurrently hold a university or college post. The function of the commission will be to assist the provincial committees in the formation of their plans, the determination of policies and targets and the assessment of their needs ; make recommendations to the Central Government regarding the bases, purpose and amounts of grants that should be made from federal funds towards the plans of the provincial committees ; receive and distribute the grants sanctioned by the Central Government and obtain reports on the progress and prepare its own report to the Government on the state of higher education in the country.

156. The central grants commission would not give unconditional grants because this would prevent the Central Government from exercising influence on the direction of development. The Central Government would like to see that progress is made in accordance with approved plans and use its resources to promote that objective.

157. With the appointment of provincial university grants committees and the central commission the ability of the universities to move forward with vigour and confidence will be increased and a more effective and favourable environment for their co-ordinated and orderly growth will be provided. By holding the Inter-University Board accountable for the performance of specific functions, the government will be assured that high standards will be achieved without having to set and enforce those standards itself. Our recommendations are intended to promote a climate of understanding based on partnership among the Federal Government, Provincial Governments, the universities and the colleges in performing a most vital service to the nation and to affirm the principle of responsibility instead of control and subordination. We believe that the implementation of these proposals will enable all institutions of higher education to grow and expand with confidence in their mission and in their ability to fulfil it.

VIII

TEACHING AND RESEARCH IN COLLEGES AND UNIVERSITIES

158. To improve the content and quality of college and university instruction and research is the main objective of the organisation of higher education. Colleges and universities must continue to improve their curricula, syllabi and text books in order to keep them abreast of new knowledge and to assure their relevance to the changing needs of the students and the nation. Intensive attention to these matters is required at present in order to complete the process of adapting our action to the requirements of goals as identified in the context of our independent national life and the consequent needs for trained personnel and organised research.

159. Higher education is now composed of two intermediate years after matriculation—the eleventh and twelfth ; of two years leading to the bachelor's degree—the thirteenth and fourteenth ; of another two years leading to the master's degree ; and of two or three years additional work leading to the doctor's degree. Some colleges and universities also offer a three-year honours course above the intermediate level. It is the goal of our educational leadership to lengthen the educational process by adding one or both of the intermediate classes to secondary education and by adding a third year to the course leading to the bachelor's degree. This step would greatly strengthen secondary education in its efforts to establish a system more useful to those who do not go on to college. It would also permit the colleges and universities to develop greater unity in higher education. During the Plan period, however, this change would be difficult to introduce. The money, equipment and