A PROPOSED STRATEGY FOR REORGANIZING SECONDARY SCHOOL TEACHER PREPARATION IN PAKISTAN

DISSERTATION

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Planners who put a nation's human resources to the best possible use for the common weal are responsible for the development of an educational system that can transform human potential into human productivity. Such a kind of productivity supplies momentum to a society's economic, social, political, and humanitarian life. The teacher in such an educational system performs a significant twofold role. He perpetuates society's heritage and simultaneously helps energize human resources for social progress.

In order to design an educational system that reflects Pakistani culture and ideology, teacher education programs must be developed which reflect the overall expectations by the country's various social, economic, and educational institutions. Such a program should take the lead in not only developing the educational system but also in establishing priorities in social, economic, and educational changes.

The purposes of this study, therefore, were to (1) describe the historical development of secondary school teacher education in Pakistan, (2) analyze the preparatory plans for secondary school teacher education, (3) develop a conceptual

framework for the proposed strategy through reviewing the literature, with special reference to such programs in New China, Russia, Britain, and the United States, and (4) propose a set of recommendations incorporating some of the features of these countries essential for reorganizing the existing program in Pakistan.

A review of the literature revealed that Pakistan had a centuries-old educational and cultural heritage which was replaced by the British rulers in the name of scientific advancement. Real education became impossible through a foreign medium which caused incalculable intellectual and moral injury to the nation. The independence after 1947 did not change the outlook and opinion of the people who were segregated in classes on the basis of education. Teacher preparation programs did not meet the changing needs of the society. Despite several educational reforms no perceptible change is discernible.

To achieve the purposes of this study some objectives were formulated to develop the new program which should give each teacher (1) better understanding of current social, economic, and technical changes; (2) broad-based "general education," general knowledge stemming from the interrelatedness of such disciplines as psychology, sociology, anthropology, mathematical analysis, and environmental sciences; (3) development of the ability, initiative, skill, and intuition to communicate and apply knowledge in practical situations,

(4) understanding of the psychological problems of adolescence and the social adaptation of youth in time of rapid change; and (5) professional growth and commitment to professional ethics.

The suggested program would require four years to complete a degree or two years to receive a diploma. The preservice teacher would continue academic and general education while pursuing the different phases of teacher education.

This program stresses practical aspects of teaching and implies that education as a discipline will be treated physically and psychologically as an integral part of higher education. In this perspective college and university education will provide sound general education background for teachers.

Some recommendations that the study makes are changes in content of many disciplines, review of boundaries between subjects, organization of new subjects, revision of teaching methods in accordance with new insights provided by educational and psychological research, and changes in organizational and administrative policies and procedures of training institutions. The study concludes with a suggestion that further studies be made regarding additional components of the secondary school teacher education that have been mentioned.

إِنْ أُرِيدُ إِلَّا الإِصْلَاحَ مَا اسْتَطَعْتُ وَمَا تَوْفِيقِي إِلَّا بِاللَّهِ

(٨٨:١١)

I SEEK ONLY TO SET THINGS RIGHT,

SO FAR AS I AM ABLE.

MY HOPE OF SUCCESS IS IN ALLAH (GOD)

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CHAPTER I

INTRODUCTION

Any attempt to reform or reorganize teacher education would fail unless it is known what the educational institutions are going to be like and what they should be like. Hence, the study of teacher education must start with the school itself. Determination should be made as to what should be taught and the manner in which it is to be taught. There is an interrelatedness of a society and its schools. The values of a society are reflected in its purposes of education. "For what we teach reflects consciously or unconsciously our concepts of the good life and the good man, and the good society" (13, p. 5). There is a persistent message flowing from the pens of thoughtful scholars in Pakistan that the kind of education that society has received thus far has been foreign to its soil and alien to its culture. "It is the community and the culture--what the ancient Greeks called paideia--that educates" (13, p. 5).

After independence, leaders in Pakistan began planning for the country's needs. Apathy toward education was evident as the implementation of goals evolved, and, as a result, the desired goals have not been realized. The nation's planners failed to consider the country's cultural base and its educational needs similtaneously. They also neglected providing a realistic financial base for education. The linkage between past and present was not supplied the youth of Pakistan. Many young people in the country today are identified with divergent ideologies that are radically different from the one which gave birth to the new nation (12, p. 21).

In Pakistan there has been no progressive decrease in the rate of illiteracy. Eighty percent of the population cannot read or write. The population continues to increase at an annual growth rate of 2.6 percent while the Gross National Product per capita remains among the lowest in the world. In 1968, the annual Gross National Product per capita was one hundred dollars and, at current growth rates, it is expected to rise to two hundred fifty dollars by the year 2000 (1, p. 38).

The expenditure which is made on education in Pakistan is a little over 2 percent of the Gross National Product, as compared to 7.2 percent in Japan, 5.8 percent in the United Kingdom, and 6.8 percent in the United States. A constant drain upon the nation's economy is caused by inadequate educational facilities, poorly functioning programs, and thousands of unskilled and uneducated people.

All of the developing nations are facing complex political, social, and economic problems. One of the main hopes for finding solutions to these problems in each country seems to be in the development of an effective educational system. The validity of any educational system, however, depends upon the quality of the teaching and the availability of competent teachers. Teacher education is a part of any educational system. It is a critically important element to be considered in any strategy of educational reform or improvement (14, p. 9).

Pakistan, a young nation with an old culture, has faced a series of crises since its independence. These crises, which have been created by the operation of the political system, have been both a reflection of and a contribution to larger crises in society. Future crises can be averted or lessened in intensity if the leaders who have a stake in the remaking of Pakistani education cooperatively evaluate past educational decisions and resultant events and formulate goals and procedures for the future. While some of the past undertakings have been unprofitable, others have been meritorious. A realistic evaluation of the current status of education in Pakistan is mandated since "in the past whenever any educational reforms were conceived, they were treated as highly sacrosanct and were imposed with so much rigidity as if they were the last writ of human wisdom" (4).

There is a dire need for an educational enterprise which is grounded in the nation's own culture and ideology. Such an enterprise should become a unifying force for all of the diverse sections of the country. The promotion of a common set of cultural values would contribute to the unification effort. The schools could reduce the communication gap between the educators and the parents as well as between the students and the teachers.

The educational system of Pakistan should aid in the solution of the massive social problems of poverty, ignorance, and societal class barriers which plague the country. An appropriate role for the schools is to assist youth to identify and to prepare for productive roles in society.

The accelerated pace of technological developments in today's complex world is creating serious problems for people in countries which enjoy a high rate of literacy. It is through a well-formulated and efficiently implemented educational system that Pakistani citizens can become better able to cope with rapid change. The proliferation of information produced by the knowledge explosion can be utilized only by literate individuals. There is a need for an educational system that would help students become acquainted with the technological advancements of the West as well as assist them in identifying their country's societal needs in a rapidly-changing world. A system which can function in the ways described should bring to an end student unrest and the tension which have been evident recently.

In order to design an educational system that reflects Pakistani culture and ideology, teacher education programs must be developed which reflect the overall expectations of the country's various educational and social institutions. The educational objectives which have been enumerated require the introduction of several innovations in teacher training programs. Among the needed changes are the transformation of the content of many of the academic disciplines, review of boundaries between subjects, organization of new subjects, revision of the teaching methods in accordance with the new insights that educational and psychological research have discovered in the process of learning and intellectual development, and changes in the organizational and administrative policies and procedures of the schools.

In this study is presented a strategy for reorganizing the current secondary school teacher education program in Pakistan. Recommendations for educational improvement, although couched in the basic philosophy of Pakistan's educational objectives, reflect the incorporation of some of the research findings available in the literature of the developed countries such as the United States, Great Britain, Communist China, and Russia.

Statement of the Problem

The problem of this study was to analyze the structure of secondary school teacher education in Pakistan and to propose a strategy to develop a conceptual framework for teacher preparation.

Purpose of the Study

The purposes of the study were to

1. Describe the historical development of secondary school teacher education in Pakistan.

2. Analyze the present preparatory plans for secondary school teacher education in Pakistan.

3. Develop a conceptual framework for the proposed strategy through reviewing the literature of secondary school teacher preparation programs in the developed countries.

4. Propose a set of recommendations incorporating features essential for reorganizing a sound secondary school teacher preparation program.

To achieve the purposes outlined in this study, some questions were developed relative to the inherent issues and problems of general education and of secondary-school-teacher education in Pakistan. Answers to the formulated questions formed the organizational basis for the proposed program of secondary-school-teacher education in existing teacher training institutions of Pakistan. The questions considered most pertinent are

1. What significance did education and teacher preparation have before and after the British rule in the Indo-Pakistan subcontinent?

2. What educational challenges did the new country face at the time of its independence and how were those challenges met?

3. What have been the significant evolutionary developments in teacher preparation programs to the present time?

4. What quantitative or qualitative educational opportunities are available which are meaningful to youth?

5. How has education been instrumental in the development of Pakistan's manpower resources?

6. What quality of people are drawn to the teaching profession?

7. What relationship does teacher education maintain between general and professional education?

8. What is the place of student teaching in teacher preparation programs?

9. In what way has education in Pakistan been instrumental in changing society?

10. What evidence is there that the values inherent in the Pakistani teacher-education programs serve Pakistan's society?

11. What future plans are underway for the expansion, growth, and improvement in teacher education programs in Pakistan?

12. What financial implications are there for teacher-preparation programs?

Background and Significance

As in many of the developing countries, there is growing dissatisfaction in Pakistan with the present programs of teacher preparation because they do not meet the needs of a changing society. The technological shock, the knowledge explosion, and the advancement of human interaction through communication are placing mounting pressures upon the schools to make changes. Curriculum revision is needed in most disciplines. Educational and psychological research have provided some new insights regarding intellectual development of students and learning processes that are most productive for certain types of learners. Teaching methods should be revised to accommodate the research findings. Utilization of a range of instructional media should also be considered. There is a marked need for the organization of new subjects and the combining of others in order to satisfy the rapidly changing vocational requirements of a growing industrialized society. One of the most needed changes in the educational system is that of the administrative and organizational structure of the schools.

Recognizing the inadequacies of the current practices in pre-service and in-service education of teachers, the experts at the Hamburg meeting "were agreed that present forms and methods of preparing future teachers for their duties are generally of doubtful value" (16, p. 9). A survey sponsored by the UNESCO Regional Office for Education in Asia urged that

> Conditions in which teachers are trained should be profoundly changed so that essentially [the teachers] become educators rather than specialists in transmitting pre-established curricula. The principle of a first, accelerated training stage, followed by an in-service training cycle, should be adopted" (14, p. 3).

The Commission on National Education (1959) reflected this attitude by stating that "no system of education can rise above the teachers who serve it, and its quality depends ultimately on the quality and efforts of the teacher (8, p. 128). The Commission frankly admitted that in Pakistan "the actual situation is far from ideal." These ideas were incorporated in the 1969 report of the government of Pakistan:

> The teacher is the pivot of any educational system and his status and position in society must be such as to attract the best of its products to teaching. . . . The educational policies of Pakistan have never taken account of this fact. Teachers . . . have been denied intellectual freedom . . . made subordinate to the bureaucrat who exercises over them the rights of appointment . . . dismissal. No wonder talent has not been attracted to the teaching profession (7, p. 6).

Developers of the third five-year plan also expressed concern for improvement in teacher preparation: "If education is to play an effective role in the social and economic growth of the nation, the teacher and his education must receive the highest priority" (10, p. 194). The high rates of dropout and failure in examinations were ascribed to low standards of instruction in the schools. The writers warned that unless steps were taken to improve the quality of teachers, the educational breakthrough that was to be achieved through the increased allocations of the third plan would be a breakthrough in numbers only. The resulting situation might well constitute a drag on the economy (10, p. 194).

In spite of the government's official recognition of reform in teacher education, the fact is that teachers in Pakistan are still trained in the traditional manner which dates from the time of the British colonial system. Methods courses and practice teaching are the two modes through which teachers are trained in the technical aspects of their jobs. Basic to the teacher-preparation program is the assumption that teaching is a technical function for which an individual can be trained. Once he has met the training requirement, the teacher is qualified to remain in the profession as long as he desires to do so. The new entrant into the teaching profession must imitate the traditional forms and well-established practices of the school as modeled by its trained senior teachers. Other basic assumptions are that learning is merely a matter of memorizing content and that the teacher's primary duty is to disseminate knowledge while maintaining discipline in the classroom (1, p. 39).

The assumptions upon which teacher training programs in Pakistan are based do not agree with modern practices in other parts of the world. Educators in a number of countries recognize the value of "inquiry" and "discovery" approaches to learning. They acknowledge that the involvement of the teacher as well as of the students may take place in a wide variety of situations and in response to a wide variety of stimuli. In addition, there is consensus among knowledgeable educators that a technique which proves successful for one teacher in a given situation may or may not prove valid for another teacher in the same or another situation.

Teacher trainees who emerge from the type of training programs that now exist in Pakistan are usually ill equipped. Preparatory programs offered by teacher-training institutions contain some obvious weaknesses. The fact that clearly-stated objectives and purposes for teacher education are lacking contributes to poorly-articulated programs, as do inadequate resources and insufficient time allotments. The teacher-education period in Pakistan is less adequate than that afforded by some of the underdeveloped Asian countries. The curricula and syllabi of courses are dominated by the universities and Provincial Departments of Education. There is little or no teacher involvement in their development.

Teacher education is not considered an integral part of the total educational system. Not surprisingly, current educational procedures instill little sense of professional ethics among teachers. Indications are that the teachers' cultural, intellectual, and moral standards are low.

Radical reform is needed. Reformation is needed in the nature of the schooling process, the systems which control educational policy, and the institutions which prepare people to be teachers (13, p. 414).

The question then is not whether teachers should receive special preparation for teaching, but what kind of preparation they should receive. Teaching calls for a deep sense of human responsibility. "No profession charged with the responsibilities for human welfare will ever be the same, for whenever our ideas about the nature of man change, great changes are called for in the ways we live and work with people. This is especially so for teaching, the most human profession of all" (3, p. x).

The belief that operation of any teacher education program results in the training of people who can teach well is based upon a mechanistic view of behavior psychology which is no longer valid (12, p. 45). Increasingly, educators are writing regarding the importance of affective elements in learning. The perceptions of self, the hierarchy of human needs, and the humanness of the educational process are among the topics currently being explored. Pakistani leaders should explore the ideas advanced by both the behaviorists and humanists. Understanding of such concepts as "competency-based" education and a "self-actualizing" person would enable educational leaders to set up alternative programs to meet learners' needs. Expectations of radical change in educational programs may be premature or too ambitious. The existing traditional system of education in Pakistan has undergone little change up to the present time.

Definition of Terms

Some of the terms used in this study bear significant connotation in the context of Pakistani system of education. Their definition will elucidate their meaning and the references for which they are used.

Secondary education.--A period of education, planned especially for young people between the ages of twelve and seventeen, in which the emphasis tends to shift from mastery of basic tools of learning, expression, and understanding to the use and extension of the tools in exploring areas of thought and living. The student is also given experiences in exploring and acquiring information, concepts, intellectual skills, attitudes, social, physical, and intellectual ideals and habits, understandings and appreciations often differentiated in varying degrees according to the needs and interests of the pupils. These experiences may be either terminal or preparatory to additional education (6, p. 522). In Pakistan, secondary education is organized in three stages: (a) middle or junior high school with grades six-eight for ten-twelve age group; (b) high school with grades nine-ten for thirteen-fourteen age group; and (c) higher secondary or intermediate (junior college) with classes eleven-twelve for fifteen-sixteen age group (8, p. 118).

Teacher education.--(a) All the formal and informal activities and experiences that help to quality a person to assume the responsibilities of a member of the educational profession. . . . (b) the program of activities and experiences developed by an institution responsible for the preparation and growth of persons preparing themselves for educational work. . . . (6, p. 586). In Pakistan, this term is synonymous with teacher training.

Department of Education.--In each province, an administrative organization, the Provincial Secretariat, deals with

1. Universities
2. Colleges
3. Technical education
4. Teacher training institutions
5. Secondary education
6. Primary education

7. Libraries, museums, sports, games, and cultural activities

8. Attached offices such as the Education Extension Service Center, Provincial Bureau of Education, and Textbook Boards.

The Department of Education is headed by an Education Secretary assisted by a number of Education Advisors, Joint Secretaries, and Deputy Secretaries.

Ministry of Education.--The Federal Ministry of Education is essentially a coordinating agency for the provincial state education ministries and is responsible for educational policy and foreign relations in education; education is, however, a provincial (state) matter. Each province organizes and administers all types of education within its boundaries.

Secondary school certificate.--Successful completion of grades six-ten entitles a youth to receive secondary school certificate.

Higher secondary school certificate.--Two years of post-secondary education entitles the students to a higher secondary school certificate. This is equivalent to the two years of junior college in the United States.

Mosque.--A building used for public worship by Muslims. Islamic institutions are usually attached to Mosques. They are designated as Maktab, Madrasah, Jamia, and Darul-Uloom (5, pp. 117, 358, 364).

Maktab.--Primary school in the Islamic system of education. Such schools are still in operation in parts of Pakistan. In a maktab the curriculum includes instruction in Quranic, the Holy Book of the Muslims, reading, writing, and elementary arithmetic. Such schools are generally attached to Mosques.

Madrasah.--Institution of higher learning, similar to a college or university of modern times. Generally, in such an institution students reside and are given free boarding and lodging. Stipends are also provided to some students. A madrasah provides education at a more advanced level than maktab.

Jamia.--Literally means higher seat of learning. This term usually connotes the idea of a college or university.

Dar-ul-uloom.--University where numerous disciplines of higher learning are taught.

Procedures of the Study

Literature dealing with the educational system in Pakistan was thoroughly reviewed. This review covered the period from the eleventh century A.D. to the present. In the eleventh century, the Muslims had control of most of the northern part of the Indo-Pakistan subcontinent which today forms Pakistan. During the period of British rule, that lasted more than one hundred years, numerous documents and manuscripts were removed to England. Many of the valuable papers are still preserved in the British museum and in the India Office Library in London. The researcher had access to many of these documents and manuscripts relating to the educational achievements of the Muslim rulers and to the policies pursued by the British rulers in changing the centuries-old indigenous system of education of the people. Unpublished theses and dissertations received from the libraries of London University and the Leeds were examined. Some of the major university libraries in the United States also permitted examination of selected documentary books and writings of Indian and Pakistani authors.

A review was made of articles in American and Pakistani educational journals. It focused on current writings relating to general education and teacher education in Pakistan.

Additional material reviewed included some of the major documentary books and literature dealing with post-independence developments in the fields of education and teacher education in Pakistan. These publications included the proceedings and recommendations of the All Pakistan Educational Conference 1947-48, the Six-Year National Plan for Educational Development (1951), the Report of the Commission on National Education (1959), the New Educational Policy 1970, the Educational Policy 1972-80, and the four five-year plans of the Planning Commission. The scope of the review of literature was widened by the inclusion of materials listed in A Selected Bibliography of Educational Materials in Pakistan by Saad (11). Newspaper comments, views of educators, critiques of professional journals and magazines, and reviews of books contained in a selected and annotated bibliography about education and development in India and Pakistan (1) provided additional information.

In response to a request made to UNESCO's Regional Office of Education in Asia, at Bangkok, Thailand, analyses regarding many surveys on teacher education and in-service training of teachers in Asian countries were received and reviewed. Additionally, search was made to locate documents in the Educational Retrieval Information Center relating to teacher education in the developed countries, with a particular reference to the United States. The search was made through the Texas Information Service. Information gathered during the extensive review of related literature provided the basis for the formulation of recommendations regarding strategies for reorganizing programs for the professional preparation of secondary school teachers in Pakistan.

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CHAPTER II

EDUCATION AND TEACHER PREPARATION IN PAKISTAN: A CHRONOLOGY OF DEVELOPMENTS IN A HISTORICAL PERSPECTIVE

The present system of education in Pakistan bears a marked imprint of the British mold. Examination of the present educational structure without giving consideration to past events will result in a distorted interpretation of the situation that exists. The present is a part of a continuum that was first begun by the Muslims as early as 1008 A.D. The continuum has parallel educational, social, economic, and political elements. Both the development and the transmission of this indigenous culture were interrupted in 1765 A.D. when India was forcibly occupied by the British. The whole system of education was replaced by European or English systems.

A review of earlier educational endeavors and comparison of their similarities to current practices is imperative if an adequate assessment is to be made of the present system of education. Such an assessment must precede any suggestions for change.

It is for these reasons that this chapter begins with a summary of Muslim education in the Indo-Pakistan subcontinent, including its contribution to socio-economic conditions, the standard of learning and knowledge, and the place of teachers in Muslim society.

Muslim Education 1008-1757 A.D.

Goals and Objectives

It is obligatory on every Muslim, male or female, to seek knowledge. Superiority of one person over another is based primarily on virtue and knowledge.

> The Koran . . . invites every human being to learn and Mohammad makes knowledge necessary to every male or female. . . . There are many verses in the Koran on the significance of knowledge, the superiority of the learned, and on the importance of faith and daily life (7, p. 29).

There is a sign in it for a people who reflect, who ponder, who are mindful, who are men of understanding, and who use their intellect (2, p. 28). This image of man's personality is based upon a learning which reflects the whole nature of man.

Mohammed also emphasized seeking of knowledge in these words on different occasions:

> He dieth not who takes to learning; who ever reverses learning reverses me; to obtain education is incumbent on every Moslem, male or female. Seek after knowledge though it be available in China. To listen to the words of the learned and to instill into others the lessons of science is better than religious excesses. . . . Acquire knowledge. It enables the possessor to distinguish right from wrong; . . . it is our friend in the desert, our society in solitude, our companion when friendless; it guides us to happiness; it maintains us in misery, it is an ornament among friends and an armour against enemies (28, pp. 53-54).

The importance of reading and writing may be imagined from the <u>first word</u> revealed by Allah to his messenger, Mohammed.

The word was "Iqra," which means Read, although Mohammed did not know how to read or write. The first message began with the following: "Read: In the name of thy Lord who createth, createth man from a clot. Read: And thy Lord is the Most Bounteous, Who teacheth by the pen, Teacheth man that which he knew not" (35, p. 445).

Zamakshari, a commentator of Koran who is recognized by great scholars, explains the verses in these words:

> He has given to the servants knowledge of that which they did not know. And he has brought them out of the darkness of ignorance to the light of the knowledge of writing, for great benefits accrue therefrom, which God alone compasseth, and without the knowledge of writing, no other knowledge could be comprehended, nor the science placed within bound, nor the history of the ancient could be acquired and their sayings be recorded, nor the revealed books be written, and if that knowledge did not exist, the affairs of religion and the world could not be regulated (41, p. 361).

These references on the importance and value of learning or education are just the glimpses from Koran. One reason for the inclusion of the references is to negate the impression that pervades the minds of many people that illiteracy and ignorance prevailed among the Muslims during every period of history. Another reason is to provide a background for assessing Muslim contributions to learning and culture in the context of Muslim learning and scholarship.

Growth and Development of Muslim Education

The Muslims came to India in the eighth century of the Christian era. At that time the native educational system was restricted to the high castes, called the Brahmins. The Muslims opened education to everyone, without regard to caste, creed, color, or social status. Islam recognizes no distinction between man and woman, between rich and poor, or between high and low. "It was, however, a matter of policy with the early Muslims that as soon as an area was occupied, schools were established. A teacher accompanied each governor of a newly-conquered place in order to educate the Muslim children" (2, p. 91). Muslim educational institutions, which were open to all, became very popular. They provided, for the first time in the history of India, educational opportunities to the humblest citizen (32, p. 29).

During the 700-year Muslim rule (1008-1712), the Muslim system of education in India produced many great scholars, including teachers, scientists, doctors, and engineers. This whole period of educational development warrants examination in greater detail, but an objective of this study is to illustrate and establish from historical evidences provided by the Europeans the fact that quality education was fostered by the Muslims. European writers confessed that when "even the educationally most advanced continent of today, Europe, was groping in the darkness of what is nowadays termed as 'Dark Ages,' light of learning was sought from the East as in those days a Latin expression, 'Ex Oriente Lux,' was used which means 'light through the East'" (8, p. 101).

Education and learning as such have never been alien in the Indo-Pakistan subcontinent. There is no country where the love of learning had an earlier origin and exercised an influence as lasting and powerful as in the Indo-Pakistan subcontinent (39, p. 118). The characteristic feature of the Islamic system of education was that almost all the Muslim heads of state were highly educated. These leaders not only patronized learning and gave educational grants to educational institutions, but they were personally and practically involved in learning and experimentation. Experiments relating to learning, language ability, and the teachers' role in imparting learning were made during the time of Akbar, one of the most noted rulers (40, pp. 17-18). A general love for books prevailed among these rulers. Some of them were authors of several books, and some wrote their autobiographies. They maintained libraries, collected books, and had books translated from other languages into Persian, the official language of India during the Muslim rule (38, p. 77). The educational advancement of the Muslims in India was evidenced by the fact that, even in the Middle Ages, India had a department of education. The government of no other country appeared to have had such a department (7, p. 29). Generally, Muslim rulers preferred to appoint to governmental post ministers and high officials who were educated. One ruler, Sikandar Lodhi (1489-1517), went a step further and issued an order that only educated persons were to be enlisted in his armies (19, pp. 581, 587, 589).

Because the promotion of learning and knowledge is treated as an act of worship in Islam, establishment of schools and colleges was not restricted to the Muslim rulers. Learned people, rich persons, and high officials of the government acted as teachers or allowed their houses to be used as sites for teaching and learning to take place. Keay observed that the example set by the rulers was followed by many of their influential subjects. Scholars, poets, and other literary men were often encouraged by the patronage of the court or of private individuals (27, p. 107).

Mohammed Ghori (1174-1206), the real founder of Muslim rule in India, made a practice of adopting his promising slaves and giving them education and training in the government. Kutub-ud-din, one of the slaves who benefitted from the ruler's kindness, succeeded Mohammed Ghori in 1210 A.D. at Delhi. Thus, the Slave Dynasty in India was established. Razia Sultant was the daughter of Altamash, the successor of Kutub-ud-din. She ruled after her father's death and was known as an educated person and a patron of learning. Firuz Tughlak, another Muslim sovereign, had a special interest in educating young slaves. He maintained no fewer than eighteen thousand of these lads, and large sums must have been spent by him for their support and education (27, p. 111). The Muslim historian Ferishta (as quoted by Keay) said that Firuz built no less than thirty colleges with mosques attached. Students and professors lived together in the institutions erected. It was evident that under the guidance of this sovereign, considerable advances were made in the education of Muslims (27, p. 111).

Keay further commented on the spread of education in Muslim India:

> Besides the efforts of ruling sovereigns, there is evidence that patronage and encouragement of learning, and the foundation of colleges and schools, were also undertaken by many of the nobility and gentry. By the time, then, that the Moghul emperors began to reign in India, there must have already existed a great many Muslim colleges and schools in various parts of India . . . but even making all allowance for exaggeration, it seems quite evident that Muslim higher education, before the invasion of Babar (the first Moghul ruler of India), must have been established in many important centers . . . (27, p. 111). . . . however, there cannot be said to have been any systematic and consistent educational policy among the Muslim kings before the Moghul emperors. . . . (27, pp. 113-114).

Each of the Moghuls made remarkable contributions in establishing schools and colleges and in patronizing learning and knowledge all over the country. The names of Akbar, the Great, and Aurangzeb merit special recognition. Akbar (1556-1605 A.D.), whose literacy was much disputed by the historians, was a great patron of learning (27, pp. 113-114). He was deeply interested in literary discourses, seminars, and discussions. He had a great love of books which he demonstrated by building a great library of his own and by having books read to him every day. He patronized Hindu learning and had a large number of Sanskrit books translated into Persian for the benefit of Muslim students. Among these books were <u>Mahabharath</u>, <u>Ramayana</u>, <u>Atharvaveda</u>, the <u>Lilavati</u>, and the <u>Tajak</u>, a treatise on astronomy.

All these books are sacred religious books for the Hindus. He collected many rare books which were divided into two classes: science and history. He entrusted the volumes to a full-time librarian, Mulla Pir Muhammed. Akbar encouraged painting, music, and calligraphy. He founded numerous colleges in different parts of the country. Many private individuals also founded colleges, including Akbar's own nurse, Maham Anaga (32, p. 22). This lady built a college at Delhi, the ruins of which are still to be seen (27, p. 116). The national language of Pakistan, Urdu, was first developed and flourished during Adar's time. Urdu was, and still is, accepted as the lingua franca of a great part of India (23, p. 35).

Akbar was a very intelligent and farsighted ruler who tried to develop Indian nationalism in the subcontinent. He encouraged intermarriages, and he invited representatives of various religions to put forward the claims of their respective faiths through discussions in his presence. Many other debates were held concerning religious, philosophical, scientific, and historical questions. A matter which was the topic of discussion at one meeting led Akbar to make a strange experiment. The experiment was a kind of psychological investigation which is not without interest to educators today.

This story has two versions: one related by Father Catron who based his history of the Moghul dynasty on the memories of Manucci, an Italian who was the physician to the Moghul emperiors for forty-eight years (10, p. 278). The other version is related by a Muslim historian, Badauni, who was unfriendly to Akbar. The story is as follows:

> One day it was being debated as to which was the first language of mankind. The Muslims declared that it was Arabic, the Jews claimed Hebrew, the Brahmins (the highest class of Hindus who had exclusive right of education) maintained Sanskrit. Akbar, in order to discover the truth, ordered that several suckling babies be kept in a secluded place where they were not to hear a spoken word. Well-disciplined nurses were deputed to take care of the babies without speaking in order to test the accuracy of the tradition that everyone is born with an inclination to religion.

After a few years, these children were brought before the royal presence. None of them could utter a word. They remained dumb; the Muslim historian, Badauni, claims that several of them died. Whatever was the fate of these children, the experimental model of Medieval times may be compared to many of the experiments of modern times. Experimentation was not an unknown aspect of education in India three centuries ago. The story of the experiment confirms the fact that scholarship and scientific knowledge existed at that time, even though British rulers deny it.

That Akbar had a great concern for scientific education was borne out in citations of his book, Ain-i-Akbari (institutes of Akbar), which was written by his minister, Abdul Fazul. An interesting account of Akbar's administration is described from a passage on education which Blochmann has translated:

> In every country, but especially in Hindustan (India) boys are kept for seven years at school where they learn the consonants and vowels. A greater

> portion of the life of the students is wasted by making them read many books. His majesty orders that every schoolboy should first learn to write the letters of the alphabet and also learn to trace their several forms . . . They may be practiced for a week, after which the boy should learn some prose and poetry by heart, and then commit to memory some verses to the praise of God . . . Care is to be taken that he learns to understand everything himself, but the teacher may assist him a little. . . . The teacher ought especially to look after five things: knowledge of the letters; meaning of the words; the hemistick; the verse; the former lesson. . . . Every boy ought to read books on morals, arithmetic, the notation peculiar to arithmetic, agriculture, mensuration, geometry, astronomy, physiognomy, household matters; the rules of government; medicine; logic, the tabie, riyazi and ilahi sciences, and history; all of which may be gradually acquired. . . . <u>No one should be allowed to neglect those things which the present time requires</u> (10, p. 278).

The last sentence in the passage reflects Akbar's concerns which modern educators express. Education should be adaptable to changing times, flexible, and dynamic. The same qualities were demanded during Akbar's time.

Space does not permit the description of the achievements of all the other Moghul rulers after Akbar. Many advancements were made in the fields of education and art. Aurangzeb (1658-1707) must be singled out for recognition because he was equally as great a ruler of India as Akbar. Both were different from each other in many ways--in character and outlook of life--yet each advocated some of those very reforms in education which are being advocated and tried in the western world at the present time.

While Akbar laid greater emphasis on the teaching of scientific subjects, Aurangzeb pleaded for a broad humanism in which history, geography, and the languages of the surrounding nations would have a large place. The formation of high ideals and habits of thought and action that would enable the pupil to meet all the difficulties of life with wisdom and courage were thought to be the necessary ingredients of a good education. Education was another of Aurangzeb's aims with a vocational background. The last sentence in the passage on education which Blochmann has translated reflects Akbar's concerns which the modern educators express. Education should be adaptable to changing times, flexible, and dynamic. The same qualities were demanded during Akbar's time. His contribution in spreading a network of schools, colleges, and libraries had the same prominence as Akbar and Feruz Shah (40, pp. 17-18).

In the life of Aurangzeb there is an incident which identified the importance of education to Muslims in general and Muslim princes in particular. This occurrence was related by the French traveller Bernier, who got a report of the incident from one who was present (27, pp. 127-130). Aurangzeb had an old tutor, Mulla Shah, who visited him after hearing that his pupil had become the ruler of India. Aurangzeb's high ideas of education are depicted as he criticized his tutor:

> "Do you pretend that I ought to exalt you to the first honors of the state? Let us examine your title to any mark of distinction. Show me a well-educated youth and I will say that it is doubtful who has the stronger claim to his gratitude, his father or his tutor? . . . was it not incumbent upon my preceptor to make me acquainted with the distinguishing features of every nation of the earth; its resources and strength; its mode of warfare; its manners, religion, form of

> government, and wherein its interests principally consist, and by a regular course of historical reading to render me familiar with the origin of states, their progress and decline. The events, accidents, or errors, owing to which such great changes and mighty revolutions have been effected? . . . were you not aware that it is during the period of infancy, when the memory is commonly so retentive, that the mind may receive a thousand wise precepts; . . . and when I left you, I could boast of no greater attainment in the sciences than the use of many obscure and uncouth terms, calculated to discourage, confound and appall a youth . . . if you had taught me that philosophy which adapts the mind to reason, and will not suffer it to rest satisfied with anything short of the most solid arguments; . . . if you had made me acquainted with the nature of men, accustomed me always to refer to first principles, and given a sublime . . . conception of the universe . . . regular motion of its parts; I should be more indebted to you than Alexander was to Aristotle and should consider it my duty to bestow a very different reward on you than Aristotle received from that prince. . . . Did you ever instruct me in the art of war, how to besiege a town, or draw up an army in battle array? Happy for me that I consulted wiser heads than thine on these subjects!" (9, p. 155).

This interesting speech upon the subject of education was scholarly, comprehensive, scientific, rich, and amazingly most modern. How ironical, however, it sounded when Macaulay, the main founder of British education in the subcontinent, exposed his prejudices against oriental learning and knowledge by declaring: "A single shelf of a good European library was worth the whole native literature of India and Arabia" (42, pp. 61-62).

Muslim System of Education

Following is a discussion of the system of Muslim education, teacher education, teaching techniques, and the curricula available during each period of time to establish the nature and quality of education consistent with the needs of the student. In the Muslim system of education, schools and colleges were attached to mosques. The levels are designated Maktab, Madrassah, Jamia, and Dar-ul-uloom. The first of the various tiers of educational institutions is Maktab (7, p. 29).

Maktab.--The word Maktab literally means a school in which writing is taught, but in practice it means a school where education essential to life is imparted. Reading, writing, arithmetic, and Kuaranic instruction formed the curricula. Muslim education was open to all, and for that reason traces of Persian Maktabs and Kuranic Maktabs have been found to exist simultaneously. The former served both Muslims and non-Muslims while the latter only served the Muslims. Another reason for establishing Persian schools was that Persian was the court language of the rulers (27, pp. 125-127).

Muslim princes joined Maktab (elementary school) at the age of four years, four months, and four days, and were formally handed over to tutors for their instruction. This custom seems also to have become common among other Muslim boys and is still in use (27, p. 126). The pupils remained in Maktab until the age of twelve. The education provided in Maktabs was superior and richer in content than the education introduced by the British or even than that which is available in Pakistan today.

It was designed to serve the cultural, social, and spiritual or moral needs of a well-adjusted society, and seldom produced misfits morally maladjusted, selfish persons, as the products of the colonial British system of education in the subcontinent generally are" (38, p. 82).

Madrassahs.--Madrassah is from the Arabic word "darassa," which means to study. Like the colleges and universities of modern times, this level is a school for higher education and learning. Such schools provided free boarding and lodging besides stipends to each student. A network of such institutions was spread all over the subcontinent, particularly in those areas which are now in Pakistan. Maktabs and Madrassahs were run on endowments, state as well as private. Several historic examples support the endowment policy. Jahangir (1605-27) made a law that, when any wealthy man died without leaving an heir, his property was to be used for the repair of colleges, religious buildings, and other educational institutions (27, p. 122). Aurangzeb (1658-1707), whose scholarship and vast knowledge about education has already been described, gave land, allowances, stipends, and pensions to teachers and students. These allowances and stipends were based on one's ability and achievements.

Jamia and Dar-ul-uloom.--Jamia and Dar-ul-uloom may also be called the modern colleges and universities of the Muslim period. Bilgrami in his Ma'asirul Karam said that every few miles colleges and schools were found in AWADH (4, pp. 39-40).

Richard Burton wrote that there were six universities (Jamias) functioning in the present province of Sindh (Pakistan) until the fourth decade of the nineteenth century (11, p. 80). These examples amply testify that higher education was as popular during the Muslim period as was elementary and secondary education.

Teacher education.--There is no clear evidence available which indicates a definite concept of teacher education existing during this early period. Nonetheless, the idea was not unknown. Akbar's interest in developing quicker methods of teaching, such as his insistence to make learning more intellectual and understandable to the pupils by making them think through their own problems while the teacher acted simply as a guide and his discarding too much academic learning and increasing practical learning more practical, were the basic ingredients of a good teacher or teaching program.

Aurangzeb held very progressive views about teacher education. He emphasized that the teacher should have comprehensive knowledge of the history of mankind, the languages of the neighboring nations, an adequate conception of the nature of the universe and the principal features of the various regions and countries on the earth, and a philosophy to elevate the soul so that it would be "neither insolently elated by prosperity nor basely depressed by adversity." One can conclude that the concept of an ideal teacher with his sound preparation in the art and science of teaching seems to have existed during the period of Muslim rulers. The existence of teacher education programs, on the basis of the above evidence, therefore, cannot be ruled out.

Status of teachers.--At this early time in history, the social status of teachers was high, for they were generally men of character who had the confidence and respect of their fellow man (27, p. 107). The teachers, though not trained in the modern sense of the term, were, nevertheless, said to be masters of their subjects and to handle their subjects with wisdom, authority, and depth. Their success was measured on their wisdom, discipline, and personality. Islam enjoins a Muslim to show respect to his father and to obey him. The teacher occupied the same rank and was respected as a father. "Thy father is he who beget thee and also one who taught thee," as quoted in one of the traditions of the Prophet (3, pp. 28-37).

Curriculum.--Due to the existence of two kinds of schools, Persian and Arabic, the curriculum devised for both consisted of religious and general education at both levels--Maktab and Madrassah.

Maktab Curriculum.--The curriculum for the elementary stage included religious instruction, reading, writing, and arithmetic. Religious instruction included the study of the Holy Koran and the basic principles of Islam. Such a curriculum was meant for Muslim students only. The non-Muslims were taught reading and writing in Persian, literature, history, morals, grammar, Insha, and arithmetic. The above list was the full course followed in Maktabs. Some of them, however, gave instruction only in Persian language and used no books except those pertaining to morals and ethics (38, p. 83).

Madrassah curriculum.--The subjects taught in the secondary and higher stages of the Madrassahs included "ethics, arithmetic, economics, art of administration, physics, logic, natural philosophy, algebra, divinity and history" (3, p. 31). An example of the curriculum of a Madrassah is given below:

Curriculum of 13th Century A.D.

1. Arabic language
    (a) Grammar
    (b) Etymology (surf)
    (c) Syntax (Nahv)
    (d) Literature
2. Commentary (Tafsir)
3. Tradition (Hadith)
4. Muslim Law (Fiqh)
5. Jurisprudence (Usul-e-fiqh)
6. Logic (Mantiq)
7. Islamic philosophy (Kalam)
8. Mysticism (Tasauwuf)

There is an absence of mathematics, astronomy, physics, and medicine from the above curriculum. The lack is surprising, especially since these subjects were regularly taught, at that time, in Madrassahs outside the subcontinent (32, pp. 100-101).

During the middle of the 17th century, Akbar the Great tried to replace the philosophical curriculum with a secular one but did not succeed in this objective. His main objective was the fusion of religious and racial differences into one nation; hence, he used education to indoctrinate the people with nationalism. The British replaced this education two hundred years later, undoing his work and dividing the people into separate nationalities. Under their rule, the unity which Akbar had visualized could not succeed. Another example of the curriculum followed during Akbar's time is given below:

1. Ethics
2. Arithmetic
3. Euclidian geometry
4. Algebra
5. Mensuration
6. Astronomy
7. Physics
8. Agriculture
9. Geography
10. Economics
11. Medicine

12. Constitution of the Empire
13. Logic
14. Philosophy
15. Elahiyat (10, pp. 278-279).

This curriculum reflects a secular trend different from the Islamic subjects characteristic of traditional Madrassah curriculum. Akbar endeavored all his life for the unity of the people of India, but this curriculum did not continue after his death. Then, the traditional curriculum with minor changes was reinstituted and remained in operation until the time of Aurangzeb who created a new curriculum which was overburdened with books and did not allow the students to think about and discuss what they had learned. As is too often true today, under Aurangzeb's curriculum the students spent all their time hurriedly completing the course. This curriculum was known as Dars-e-nizamish, named after its founder. It became popular throughout the subcontinent and continues to be used by all the Madrassahs.

Unlike Madrassah curriculum, the curriculum which was prepared by Nizam-ud-din emphasized the role of the teacher rather than that of the book. Hence, it required only capable and dynamic teachers who could succeed in moulding the personalities and characters of their students.

Teaching methods.--In the early schools, the method of teaching was individualized because the learner lived with his teacher all through his school period of ten to twenty years. The methods of lecturing and conversation were often used. The psychological method of teaching was not an unknown concept. The main method of learning used at home or in the school was memorization through a process of repetition. This kind of rote learning was not all wasted because the students applied it with a mental maturity. Even completion of fifteen years training with their teachers (Muallim) was not sufficient.

In higher classes, concerned with more profound knowledge of religion and philosophy, debates between students were arranged by the teacher. The entire group of students was divided into learning circles in which they debated topics of their study. The teachers usually were capable organizers of subjects in terms of their practical use (38, p. 87). A scholar prepared under this system was thorough in his own way, defying in his argumentation even the best of the intellectuals of medieval Europe.

A description of such scholars is given by Adam, who in 1835 was asked by the British government to make an educational survey in Bengal.

> I saw men not only unpretending, but plain and simple in their manners and though seldom, if ever, offensively coarse, yet reminding me of the very humblest classes of English and Scottish peasantry . . . several of these men are adept in the subtleties of the profoundest grammar of what is probably the most philosophical language in existence; not only practically skilled in the niceties of its usage, but also in the principles of its structure, familiar with all the varities and applications of their national laws and literature and indulging in the abstrusest and

> most interesting disquisitions in logical and ethical philosophy. They are in general showed discriminating and mild in their demeanour (10, pp. 278-279).

As early as the fourteenth century, Ibn Kheldun, a Muslim sociologist, protested against the method of teaching prevalent in the Muslim-west and boasted of the superiority of Oriental methods by which the teaching of the art of writing was separated from instruction in the Koran (15). The method of teaching which he was criticizing was that which emphasized rote learning without the understanding to use the learning in practical life situations.

Akbar introduced teaching reforms which permitted students to learn in a few months things which previously took years. According to his methods of teaching, a child had to pass through three distinct stages of learning before he became able to read and write without difficulty. First, he was taught the alphabet with correct pronunciation and accent, then combinations of two letters, and finally reading short lines of prose or poetry in praise of God (27, p. 149).

Aurangzeb objected to learning things without being able to relate them to one's environment. Specifically, he objected to merely learning words and terms without being able to understand or use them or find any vital connection between them and the world outside the school (18, p. 161).

Specialization of learning.--Muslim education in India was so advanced that "specialization," a concept current and modern in today's 20th century education, was frequent. Certain places were famous as centers for special subjects; for example, the Punjab for astronomy and mathematics, Delhi for the tradition of Islam, Rampur for logic and medicine, and Lucknow for theology. The higher levels of teaching were carried on in Arabic (26, p. 110).

Every branch of knowledge had a religious significance and was studied with an intent to achieve knowledge of spiritual as well as mundane life. This combination was the reason the Muslim system of education was a superior one for it utilized the sacred literature of the Holy Koran as the subject of instruction.

The essence of all literature and science was summed up and crystallized in the Koran. The prophet advised his followers to seek knowledge consistently throughout life. His advice is the basis for Muslims having played paramount role in every aspect of the progress and furtherance of scientific research, art and human culture, and civilization (28).

Conclusion

From this analytical account of Muslim education in medieval India, many conclusions can be drawn:

1. The rulers were aware of their duty to enable people to exercise their right to provide and receive an education, however uneven or haphazard each ruler's policy might have been in providing education on a systematic or universal scale.

2. Almost all the rulers themselves were reputable authors who encouraged mass education to their subjects through endowments.

3. Education, while inseparable from religion, emphasized knowledge and learning of both spiritual as well as mundane life.

4. The psychological approach to teaching and learning, individualized instruction, observation of pupil behavior, pupil involvement in problem solving and discovery--all such modern concepts of education were not unknown.

5. Earning a living was not the principal goal of education in those days (maybe due to the absence of complicated economic and population problems); development of a scientific attitude, specialization, and mastery of subjects was followed in all earnestness.

6. The aim of education was to encourage intelligent and virtuous behavior derived from the religious teachings which were used to modify behavior and help in the formulation of character.

7. On the aspect of discipline, harshness and open accusation to the child was discouraged while private advisory talk and a protective environment for the development of good habits were advocated.

Educational Developments During the British Rule (1600-1947 A.D.)

While the Muslim power had started weakening, traders from European countries were settling down in the most accessible ports of India. First, merely commercial, later proprietary and military, they acquired many rights from the Moghal rulers. "Contrary to the modern axiom, it was the flag that followed trade. And with the flag came education" (40, p. 23).

To present a panoramic view of the educational development from the start until the end of British occupation of the Indian subcontinent, we have to examine periodic announcements made when the system received distinct changes. The British Government in England used to send a dispatch whenever they wanted change in the administration of British India.

In the beginning, the introduction of change into the indigenous educational system was made by many European trading companies--Portuguese, French, Dutch, and English, and above all by their missionaries, who came along with them. All in their respective spheres did their best in spreading European "knowledge and learning" within their "settlements." Each trading company had the right to start schools for the children of its European servants.

East India Company and Education

The British trading company, known as East India Company, emerged successfully from the struggle with its other European competitors and managed to take over the revenue receiving rights in Bengal from the Moghul Emperor, Shah Alam (1765), with an understanding of changing the company's status from a trading enterprise to a ruling power. It was then that the company was called upon to undertake the responsibility for providing education, such as that available under the Muslim rulers, free to Indians. But the company refused to recognize such an obligation since the British government in England did nothing to educate the English people. Moreover, about the same time, a wave of independence had flared up in the British colonies in America in 1775 and continued until 1783, resulting in the freedom of the American people. The failure of British diplomacy in that country was ascribed to the expansion of education (31, p. 30). The British were not prepared to see the same episode repeated in India. The English officers in India, on the other hand, were agitating to accept this responsibility "on grounds of political exigency." The missionaries, also greatly desiring to go to India to spread Christianity, were refused by the Court of Directors "for fear that their proselytizing activities might arouse the opposition of the people" (39, pp. 165-166).

The decade of 1781-91, however, witnessed the foundation of two small educational institutions, the Calcutta Madrasah (1781) for the Muslims and the Benaras Sanskrit College (1781) for the Hindus, although they were established more for political reasons than for educational ones. "The company wanted to educate sons of influential Indians for higher posts in the government and thereby win the confidence of the upper classes and consolidate its rule in India" (42, p. viii).

The missionaries, however, accelerated their efforts in educational activities in India because at home they were denied the opportunity to do the same job. The ruling class was opposed to mass education in England until the eighteenth century. There were some schools meant to train clergymen. It was Henry VIII who changed the medium of religious services from Latin to English, an event which two hundred years later proved a boon to the natives of England. Their primary motive was conversion of the people, mostly those who were hard hit economically due to political chaos. This near anarchy was caused by the intrigues of the European nations, particularly the British who were in the forefront, to win the race for political control of the Indian land and its people. This course led to creation of strained relations between the missionaries and British officials of the company while, on the other hand, it created hatred and suspicion of western knowledge and learning in the minds of the Indian people. The company, therefore, adopted religious neutrality while the missionaries continued insisting that the officials in England support their work of education (27, p. 205).

Charter Act of 1813 and Educational Change

Another significant milestone in the achievements of the British system of education in India is marked by the

Charter Act of 1813. The British government in London renewed the Charter of the East India Company every ten years to introduce reforms in administration. Section 43 of the Act defined the objectives of education as "the revival and improvement of literature, the encouragement of the learned natives of India, and the introduction and promotion of a knowledge of the science among the inhabitants of the British territories in India" (42, p. 32). A sum of rupees (100,000) was allocated for this purpose, but the Act remained inoperative until 1823 due to "controversy reigning high among the officials about spending this money either in the advancement of Oriental learning or Western education" (39, p. 22). However, this amount was spent on the former.

Macaulay's Minute of 1835

This controversy over whether oriental learning should be revised or substituted with European learning and knowledge brought Macaulay, a historian, legislative member of the Supreme Council, and President of the Committee of Public Instruction in India, on the scene. Dr. Duff, an exponent of a missionary agency, was really responsible for Macaulay with his notoriously scholarly Minutes of 1835, which proved a death knell to the centuries-old education and culture of millions of people of the subcontinent. Macaulay gave his wholehearted support in favor of western education, and his views were eventually accepted. The famous Macaulay Minutes of February 2, 1835, endorsed by the Governor, Lord William Bentick, laid the foundation for English as the medium of instruction in schools and colleges and for the western system of education. This had left the uneducated alone and gone so deeply into the roots of Indo-Pakistani culture so that even the independence of over twenty-seven years has not brought in any change in attitude and behavior of the educated class.

The indigenous system of education still continued with the help of nominal financial support from the company but was overshadowed by the growing number of English medium institutions. The reason for a surprising growth of its English medium institutions was the diversion of many Indian parents and students to a desire for a job in the government.

There was a strong belief in certain circles among responsible Britishers that the subcontinent had fallen into their hands, chiefly on account of the ignorance of the people, and that to educate the natives was to pave the way for British expulsion from the country. The Governor General, Ellenborough (1842-46), in giving evidence against the Europeanization of the Asiatics in the House of Commons, made the following statement:

> The committee must recollect that there are new dangers opening upon us, . . . there is a strong desire to extend education among the natives . . . and it is proposed to do this . . . at a time when press, and increasing railways, and electric telegraph will enable them to communicate and cooperate, and how is it possible then that we can, under our present most <u>defective</u> or indeed under any institution, retain our hold over that country? It is contrary to all reason. No intelligent people would submit to our government" (13, p. 19).

From the earliest days, the ulterior motive of English education was for the training of Indians for employment as mere clerks. The indigenous education was not allowed to survive for long. People who were educated under that system were not given any employment. Seeking English education became then the educational goal of the young people. Such expectations tended to force neglect of the studies which might have prepared them for agriculture, engineering, medicine, or trade and industry. What Macaulay had planned and advocated over a hundred years before, namely, "creating a class of persons who would be Indians in blood and color, but English in tastes and opinions, in morals and in intellect" (42, p. 108), became a reality. In creating such a class, he violently and openly condemned Oriental culture, religion and philosophy. He remarked, "Who could persist in encouraging the false history, false astronomy, false medicine, false metaphysics which attended their (the Indians) false religion, or resist a peroration like this." His accusations were prejudiced and (42, p. 108) were based on ignorance of the rich cultural heritage which the Indo-Pakistan society had. To undo it, every officer in the company and every director of the company in England did his best so that this cultural revival might not shorten English rule. To this end it was Macaulay who proposed "Downward Filtration-Theory" of education for educating the Indian people. This theory aimed at educating only the upper class people, on the pattern of the British aristocratic class; the rest of the masses would follow. The basic theory was couched in creating a class superiority and class distinction which had never existed in the Muslim society. Such a theory perpetuated class distinction and gave a setback to mass education. The degree of animosity and strength of Macaulay's bias may be visualized from this paragraph:

> . . . We are the Board for wasting public money, for printing books which are of less value than the paper on which they are printed was while it was blank; for giving artificial encouragement to absurd history, absurd metaphysics, absurd physics, absurd theology, for raising up a breed of scholars who find their scholarship an encumbrance and a blemish, who live on the public while they are receiving education . . . Entertaining these opinions, I am naturally desirous to decline all share in the responsibility of a body; which, unless it alters its whole mode of proceeding, I must consider not merely as useless, but as positively noxious (30, p. 116).

This report was the last word for the Oriental learning and Oriental culture. What the European educators and knowledge brought to the subcontinent is a group of creations: a Sahib class (elite), low and middle class, exploitation of the dignity of labor, communication gap between the masses and the elite, and job discrimination. The period between 1835 and 1854 shows some distinctive features of the forced system of Western education. Particularly the rise of high schools due to government initiative and expense is noticeable, but "it cannot be adequately explained without taking into account a general desire on the part of leading Indians to plunge into the stream of European culture and swim with the rest of the world" (40, p. 37). "The evils of education today--bookishness and superficiality--were sown before 1854. And the question papers of the time give the same impression as those of today--that they are based on books and notes rather than on subjects and things" (40, p. 51).

The Founding of Modern Education--
1854 Educational Dispatch

This dispatch laid down the blueprints for the present system of education in the subcontinent. Generally known as "Wood's Education Dispatch" of July 1854, the document accepted in principle the spreading of European knowledge, literature, and philosophy, and along with this acceptance it was characterized with the following developments.

1. Creation of education departments under the directors of public instructions.

2. Establishment of universities.

3. Training of teachers.

4. Graded system of education; i.e., elementary schools, high schools, colleges, and universities.

5. Spread of education through a "system of grant-in aid" to private schools.

6. Use of mother tongue as the medium of instruction in elementary and high schools (42, p. 181).

No meaningful changes, however, were accomplished as a result of these recommendations since implementation was either delayed, mutilated, or partial.

The provision of grant-in aid gave further impetus to the missionary enterprise, the monopolist in managing private institutions. This monopoly further narrowed the existence and survival of indigenous schools which succumbed to the increasing competition from the growing number of western schools. "The officials of those days generally neglected these institutions out of utter comtempt; in some instances attempts at improvement were made which, though well meant, were so ill-achieved as to lead rather to destruction than to improvement; in several cases, pressure was brought upon parents to withdraw their children from indigenous schools to send them to the departmental schools" (24, p. 105).

Another significant development was a top-heavy educational system, promoting higher education and neglecting elementary education. "And there was a failure to provide courses for those whose future employment or function in life did not require the literary ideals of a university arts course" (27, p. 206).

While education departments and the missionary agency were busy in spreading western education, the private effort of the Indian people also joined hands, for the Indian Education Commission of 1882 declared unity as the best means of spreading education in India.

Educational and Political Awakening

The period between 1901 and 1921 was a time of great awakening in India. This period also marks the dissatisfaction of Indian and European educators with the lowering standard of education. The rapid growth in private educational institutions had created the problem of low quality education. Demands for restricting the expansion policy were raised, and finally the Indian Universities Act of 1904 supported this demand by saying that there should be control and improvement of existing schools and colleges rather than increasing their number. Indian nationalist demands, however, forced the British government to concede control of education by transferring the education department to the Indian ministers in 1921.

Provincial Autonomy and Educational Development

The granting of Provincial Autonomy in 1935 was a result of public demand when the provinces were free to plan and pursue their educational programs. Leaders who sought expansion of the educational programs during this period encountered serious obstacles. The sequence of world-wide economic depression, World War II and the discontinuance of financial grants by the central government, foiled the efforts and enthusiasm of members of the provincial governments for undertaking new endeavors and further expansion of education.

Postwar Educational Plan of 1944

The last development of this period is marked with the preparation of a detailed educational report by the Central

Advisory Board of Education in 1944. This report, entitled Postwar Educational Development in India, is commonly known as the Sargent Report. It was named for John Sargent, educational advisor to the British Government in India.

The object of the plan was to create in India, in a period of not less than forty years, the same standard of educational attainments as had already been developed in England. With this end in view, the plan provided for a detailed long-term program of education at different levels. The levels ranged from university education to primary education and included teacher education. The significance of this report lay primarily in its recommendation that the secondary schools no longer be merely preparatory institutions for the university. The writers of the report recommended that, in addition to the academic high schools in which the arts and pure sciences were taught, technical high schools be established. Applied sciences, such as industrial, commercial, and agricultural subjects, would be taught in the technical high schools (43, pp. 833-836). The suggested separation of institutions at the secondary level extended to teacher training, for the report contained the writers' view that no special training schools were required for technical teachers. The report contained the recommendation that the preparation of technical teachers include instruction in technical institutions and practical experience in industry.

The advocacy of technical high schools (14, p. 44) in 1944 represented a preindependence effort to rectify the over-emphasis on academic subjects which had characterized Indian secondary education from its beginnings. General consensus was that teachers in technical schools did not need pedagogical training. The espousal of the view that technical instruction could profitably be carried out in a post-primary institutional setting represented a first step toward the diversification of secondary education. Throughout the history of British rule in India the power to make decisions relating to education followed an unwavering course in the direction of increased Indian vis-a-vis British control. In 1921, Indian jurisdiction over education was substantially increased when a system of political dyarchy was introduced, whereby central administration was divided into two parts. Under this political arrangement the "reserve" powers, such as finance and police powers, were continued under the control of the British Governor-General; but the "transferred" powers, including education, were given to Indian ministers.

Education was not placed totally under the control of Indians as a result of the dyarchy. Many Englishmen remained in key educational posts, and the control of finances remained with the British at both the state and central levels. British domination of education was finally brought to an end in 1937 when the system of dyarchy was replaced by the rule enunciated in the "Government of India Act of 1935." This act granted complete autonomy to the states in all areas except those of foreign relations, defense, ecclesiastical affairs, and the administration of tribal areas (42, p. 241).

Under dyarchy and the "Government of India Act of 1935" the interest and support of the central government waned, and education increasingly became the province of the states. With the granting of complete independence to the Indo-Pakistan subcontinent in 1947, the independent government renewed the interest and activities in education.

Professional Preparation of Secondary School Teachers under the British

The spread of the European system of education in India resulted in the emphasis of such school subjects as those which promoted the spread of European knowledge. The training of teachers, in the initial stages, consisted almost solely of programs of academic preparation which were designed to acquaint teachers with Western knowledge.

The necessity of providing training schools for the education of prospective teachers was first pointed out by Munro in his Minute of March 10, 1826. He proposed that an attempt be made to educate the masses by improving indigenous schools. For this purpose he said that the first essential requirement was to have a better type of teacher (42, p. 77).

The Education Dispatch of 1854, however, stressed the need for a systematic program of teacher education. In the dispatch references were made to the scarcity of teachers who had proper qualifications and the imperfect methods of teaching which prevailed in the schools at that time (17, p. 223). Initially, no distinction was made between the training received by primary teachers of vernacular schools and the training received by secondary teachers of English schools. Programs of training changed as the differences between vernacular and English secondary schools became more pronounced. The changes in the training programs resulted in a widening disparity in the qualifications, service conditions, salaries, and status of primary and secondary school teachers. In the Education Dispatch of 1859, which contained a review of the progress of education, was the observation that ". . . the institution of training schools does not seem to have been carried out to the extent contemplated" (17, p. 223).

The Indian Education Commission of 1882 proposed the introduction into the teacher education program of professional subjects such as those related to principles of teaching and to teaching methods. Indian educators and the British officials were gravely concerned about the low standard of education in the high schools and the inefficient teaching that was observable in the classrooms. The Central Government's Resolutions of 1904 and 1913 contained expressions of concern regarding the prevailing situations as well as proposals that teachers be trained in the art of teaching. One of the resolutions also contained the recommendation that "the theory of teaching should be closely associated with its practice . . . for this purpose practicing schools should be attached to each college" (25). The suggestion was contained in the 1913 Government Resolution which stressed "adequate practicing schools" as "a necessary adjunct" to the training colleges or normal schools. "It was during the 1920s that the courses in methods of teaching were finally established" (6, p. 68).

In spite of the recommendations of the Indian Education Commission of 1882-83, provisions for the training of all teachers, or even the majority of them, remained a far off dream (17, pp. 223-225). Prior to the issuance of the report of the Indian Education Commission, there were only two training institutions for secondary school teachers (English). One such institution was established in Madras in 1882. In 1886 the College at Lahore began operation with thirty students. Qualified students demonstrated a level of knowledge higher than that required of persons passing a first-year examination in arts. Although training institutions were opened, no practice schools were available. There were only a very small number of teachers in secondary schools by the end of the first decade of the twentieth century when institutional entrance requirements were changed. The institutions of more rigorous standards resulted in an increase in the number of teachers trained. The _Eighth Quinquennial Review of Education_, a publication of the Bureau of Education in British India, contained a review of the progress of education. Authors of the volume observed "it is a mistake to think that a graduate can teach satisfactorily without training (37, p. 95). Educators and governmental officials continued to engage in heated controversy as to whether secondary teachers did or did not need training. The Indian Education Commission recommended that (a) graduates should be required to complete a course of instruction relative to the principles and practice of teaching and (b) that permanent employment as a teacher in any secondary school should be based upon the applicant's successful completion of an examination regarding the principles and practice of teaching. These recommendations marked the beginning of the recognition of the need for professional training for teachers. The Government Resolution of Educational Policy of 1913 marked a still further advance by stating that "eventually under modern systems of education no teacher should be allowed to teach without a certificate that he has qualified to do so" (37, p. 146). The period from 1904 to 1921 marked a great advance in the training of secondary teachers. The number of training colleges for teachers increased greatly, and the increase was due partly to the recommendations of the Calcutta University Commission of 1917-19, which emphasized that the output of trained teachers should be substantially increased. The Commission proposed that departments of education be created in the universities and that education as a subject should be included for the intermediate, B.A., and M.A. degree examinations (42, p. 239). The increase in the number of training institutions, however, did not bring about quality in education because of the deficiencies in teacher preparation programs. Regarding the preparation of secondary school teachers, a later committee, called the Hartog committee, observed in 1929:

> From the evidence before there appeared to be great differences in the quality of the training colleges in the several provinces. In some the methods used are conventional and obsolete; in the others, valuable work is being done. . . . We feel that enough cannot be done in the short span of nine months, which is all that is usually available, to support the old methods of teaching to which many of the students are accustomed (5, p. 76).

With the continued expansion of secondary education, the movement to train more and more secondary teachers continued. The number of training institutions further increased. During this period salaries paid to trained teachers were extremely low and service conditions under which they worked were far less than satisfactory due to the expansion of private secondary enterprise and their low resources. It was soon realized that the efficiency of teaching in secondary schools could not be improved unless training, service conditions, and remuneration of teachers were adequately improved (6, pp. 66-80).

In 1946, the Central Advisory Board of Education in its report made the following observation:

> The type of training which those institutions give is often open to serious criticism. It fails to keep pace with modern ideas in education and there is insufficient coordination between theory and practice. The curriculum tends to be rigid and the conditions of training rarely afford the student in training or even his teachers an opportunity to ascertain definitely whether or not he is really fitted for teaching. The result is that many unsuitable candidates who should ordinarily be weeded out find their way into the teaching profession (14, p. 48).

In the years that followed, further progress in the training of secondary teachers was achieved. Three major causes, however, contributed to the slow progress. First, funds were not available to meet the demands of teachers for increased salaries. Second, the economy of the country was damaged due to the aftermath of World War II. Third, the internal political developments culminated in the independence of the Indian subcontinent and the birth of Pakistan.

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CHAPTER III

EDUCATION AND TEACHER PREPARATION PROGRAM IN PAKISTAN: AN ANALYTICAL ASSESSMENT

This assessment is confined to secondary education and preparation of teachers for that level from the post-independence period to the present time. In order to propose a new program for secondary teacher education, it is imperative that an examination be made of Pakistan's philosophy and objectives of education in general, the objectives of secondary education, and the various facets of teacher preparation.

Educational Philosophy and Objectives in Pakistan

The first All Pakistan Educational Conference which was held in November, 1947, resolved that the educational system of Pakistan "should be inspired by Islamic ideology with its characteristics of universal brotherhood, justice and tolerance" (29, pp. 20-21). This resolution was endorsed by the government and ultimately became the state policy. The major theme of this policy was that the educational system should be planned to explore the talents of the people and should be consistent with the traditional Muslim history and culture. The system should be adaptable to modern advances through the incorporation of science and technology. In order to fulfill the goals of the policy, definite aims or objectives should be evolved through a synthesis of oriental and occidental techniques. Only in this way the content in the educational system could assure the socio-economic development of the people.

The founder of Pakistan, Quaid-E-Azam Mohammed Ali Jinnah, inspired the nation to formulate an educational policy immediately after independence in 1947. The new policy included these words:

> We must . . . bring our educational policy and program on the lines suited to the genius of the people, consonant with our history and culture and having regard to the modern conditions and vast developments that have taken place all over the world. . . . At the same time, we have to build up the character of our future generation. We should try, by sound education, to instill into them the highest sense of honour, integrity, responsibility and selfless service to the nation. We have to see that they are fully qualified and equipped to play their part in the various branches of national life in a manner which will do honour to Pakistan (7, p. 26).

An urgent need was expressed for reviving an Islamic philosophy of life. In order to achieve this objective, the existing educational system had to be reshaped. The British system of education was based upon a philosophy which was intended to serve a narrow utilitarian purpose. It lacked realism and the ability to adjust to a rapidly-changing society. The British system was overly academic, literally biased and aimless, characterized as soulless, governed by low ethical principles and low intellectual standards. The British system of education was not designed to be a national system of education. Oriental learning and culture were treated as a lesser breed by the British people who talked of remedying the inherent defects of the oriental intellect. Through the system people were made dependent and lacking in initiative and self-confidence. These deficiencies had their inhibiting effect on the national life and bred dissatisfaction which led to the attempts of reform following independence (29, p. 5).

The official policy of 1947 was designed to overhaul the entire educational structure, incorporating it in the traditional Islamic ideology which stresses spiritual development of man along with physical, intellectual, social, and economic development. In the Islamic view, man combines within him all these elements but he is viewed primarily as a moral and spiritual being. He faces the claims of fellow humans but finds himself under the supreme claim of God. Only education which encompasses the Islamic teaching can produce this kind of man. For more than a thousand years education was stressed and valued in developing Islamic culture. This emphasis on education was an aspect of common unity among Muslim people and nations until the sixteenth and seventeenth centuries. During the more recent colonial period, this universal use of education for Islamic unity and development as a nation deteriorated. Pakistan's educational philosophy could not secure this feeling of unity because the educational system virtually remained unchanged even after the independence (31, p. 39). The purely secular character of the educational system was virtually unchanged. The introduction of Islamic education, Islamiat, in the schools resulted in a "patchwork" of religious education. Some barriers to the implementation of educational plans prevented success. The educational traditions of the colonial period continued functioning. Provincialism was prevalent in the new nation, and the unity needed to overcome differences in language and subcultures of the diverse people of the two Pakistans was not provided. The active rival political and cultural influence of the Hindus operating in some parts of Pakistan dominated the Muslims.

The educational traditions of the colonial days were deep-rooted in the minds of the elite class. This class continued governing the independent country using the same patterns which the British "masters" had followed. Before the "masters" departed, they succeeded in creating a class of persons who were Pakistani in blood and color, but English in tastes, in opinions, in morals, and in intellect (34, p. 108). It is this "class" which is responsible for betraying the ideology of Pakistan. According to Siddique,

> The class that the British promoted for their own ends have betrayed the people in a way no ruling or dominant class among the Muslims have done before. The full extent of their corruption, social alienation, class bias and economic greed has been exposed to views since independence, and in particular during the blood curdling events of 1971 (32, p. x).

The first Education Minister, Fazlur Rahmen, had given the highest importance to the spiritual element of education, followed by training for citizenship and vocational education. Regarding the need for citizenship training, he said, "We have been far too prone in the past to think in terms of Bengalis, Punjabis, Sindhis, and Pathans, and it is to be deeply regretted that our education has failed to extricate this narrow and pernicious outlook of provincial exclusiveness which, should it persist, will spell disaster for our new-born state" (29, p. 7). The provinces of Bengal, Punjab, Sindh, Baluchistan, and Northwest Frontier were joined together to form the nation of Pakistan in 1947. If the country could have succeeded in evolving an educational philosophy founded on the ideology of Pakistan, the problem of provincialism would not have been created.

Because of the absence of such a philosophy, the country suffered a political blow; East Pakistan seceded and became Bangladesh. East Bengal, a Pakistan state, and West Bengal, an Indian state, were one geographically before India was divided. Their religions were different, but their culture, language, and traditions were mostly the same.

Major General Fazal Muqeem Khan said, "Conspiracies only take place when ground is made fertile for them by the people and their leaders. If it was the combined effort of India and Russia which disintegrated Pakistan, Pakistanis surely helped them to do so" (26, p. xi). He further commented that at the time of independence, 95 percent of 1290 high schools and 47 colleges in East Bengal were privately organized and financed by Hindus. He expressed the opinion that members of the younger generation, who grew up in Pakistan and were educated in these institutions under the guidance of Hindu teachers who used course books produced in India, were freely fed with Indian propaganda. Khan observed that internal dissensions were being fostered to destroy Pakistan, regional affirmities were being encouraged, and Pakistani patriotism was being downgraded. The seeds of the crisis between East and West Pakistan which were sown by professors and teachers of the minority community yielded a flourishing crop. In twenty-four years, the type of education imparted to them, together with insistent Indian propaganda, changed the East Pakistani Muslims to Bengalis. According to Khan, a considerable section of the younger generation of East Pakistanis was therefore the first to break away from Pakistan and its ideological basis (26, p. 11).

A number of educational plans resulted in the continued dominance of an aimless academic system which was unproductive. The plans were the Six-Year National Plan of Educational Development, 1951-57, and the report of the Commission on National Education, 1959. The New Educational Policy of 1969-70 could not be implemented due to internal political unrest. The Fourth Five-Year Plan, 1970-75, has very openly accepted this negligence. The Planning Commission noted that the developmental plans of Pakistan have increasingly been based on the concept that education is a vital national investment and a major determinant of economic progress. The Commission reported that the priority accorded to education in the drafting of plans, however, has not always been reflected in the implementation of plans. Required funds have been denied to the education and training of teachers (17, p. 143).

The Education Commission of 1959, claiming to generate the most systematic educational schemes ever prepared, decried the "attitude and outlook of the people" (10, p. 41) and blamed the nation because it could not be changed by the system of education which had operated since independence. This Commission prescribed another educational philosophy: it identified goals of education as maintenance of national freedom, preservation of the ideals of Pakistan, and the concept of a unified nation. The educational programs which it had planned failed, however, to produce the hoped-for progress and productive life for the people for the same reasons that earlier plans had failed.

The idealistic proposals did not culminate in practical implementation for the education of the masses. As a result of the disparity between theory and practice, schools produced youths who (1) were greatly ignorant of their cultural heritage; (2) did not know the significance of the ideology of Pakistan; (3) had not been told of the sufferings and sacrifices millions of Muslims had made for this country; (4) were not prepared for national unity, fellow feeling, patriotism, and leadership traits; (5) could not acquire a common set of values based on the precepts of Islam; and (6) were not encouraged to value human life and property, to reject rebellion and vandalism (2, pp. 34-35).

These conditions were brought about because education served an elite privileged class rather than the common people. It perpetuated class system and created class hatred. This has not only created a communication gap between the educated and the uneducated, but it has caused the widening of the gap every day. Such an education has fostered suspicion and mistrust among the people of different provinces and discouraged initiative, courage, and involvement in matters of mutual interest. A common language, although available, has not been universally adopted in the country. A common language is the only source of understanding among diverse people with regional languages. Patriotic citizenry and trained manpower can only be achieved when a common medium is achieved (16, p. 9). Obviously the philosophy and goals of education can only bring results when the conditions in the schools and the community are in consonance with them.

Secondary Education in Pakistan

In determining the effectivenss of a national system of education, secondary education is universally recognized as a fundamental stage. Developed countries such as the United States, U.S.S.R., China, and many of the European countries are concentrating all their attention and research in exploring better solutions to the ever-increasing problems faced by young people at secondary school level. Most of the people who compose the skilled manpower of a nation are trained before the end of their high school years. The quality of higher education is dependent upon the quality achieved at this stage. The formation of character and foundations of future leadership are laid at this stage, which comes at a time when the youth is in his formative adolescent stage (10, p. 112).

Secondary education in Pakistan, as in any other country, cannot profitably be studied unless the needs of the society and the child are fully assessed. In order to analyze the education provided at this stage, consideration must be given to the social and cultural values of individuals and to the development of potential talents. This would necessitate the recognition of national culture and subcultures in which schools exist. Consideration must also be given to the nature of the learning process. Adequacy of an educational system can only be assessed when secondary education is viewed in a world perspective. An educational system rapidly becomes obsolete and irrelevant to students' needs unless administrative and instructional leaders keep abreast of the new trends and developments of secondary education in different sectors of the world.

High schools which had the Matriculation Examination as the educational goal were established in the subcontinent as a result of Woods Dispatch in 1854. The concept of "new" education was given for the first time by the Sargent Report of 1944, which stated that high school education should not be considered simply as a preliminary to university education but as a stage complete in itself. The report recommended that both academic and technical high schools should be established (34, p. 836). Even after the independence the pattern and form of secondary education remained unchanged.

Saiyidan observed that the total development of the child was not taken into consideration in the instructional program. Formal examination was the usual culmination of instruction which was carried on along certain set and stereotyped lines. Priority was given to testing knowledge and information acquired by the student out of a presented syllabus. Saiyidan added that the vital needs and problems which constitute the fabric of adolescent life had been largely ignored (33, p. 141). He therefore suggested that secondary education should not be envisaged in the context of books, classes, academic courses, marks, and diplomas. Saiyidan posed the question, "What can we do to help the students to grow into rich and disciplined personalities and how can we help them to achieve certain well defined social objectives and purposes?" (33, p. 141).

In spite of the ideals set up for the nation by the resolutions of the first All Pakistan Educational Conference of 1947 and subsequent decisions and recommendations of the Annual Advisory Boards of Education, no change was achieved in the educational system in general, and in the secondary education in particular. In order to reorganize the structured and curricular design of education in Pakistan, a Joint Conference was held at Karachi on December 4, 1951. The conference was made up of representatives of the Advisory Board of Education, the

Inter-University Board, and the Council of Technical Education. The conference participants met to discuss the educational issues facing the country after three years of independence and to plan for the reorganization of the educational system. This conference also discussed the six-year National Plan of Educational Development (1951-57), which was a first comprehensive effort of educational planning in the country. The president of this conference, Fazlur Rahman, who was commenting on the structural pattern of elementary and secondary education, suggested that the pre-primary level of education constitute a two-year program, the primary level encompass five years, and the secondary stage eight years. He proposed the division of the secondary program into three distinct but closely integrated stages consisting of the lower secondary, secondary, and higher secondary stages. Each of the first two stages was to encompass three years and the third was to cover a two-year span (29, p. 77).

Fazlur Rahman envisioned that the standards aimed at in the secondary and the higher secondary stages would be much higher than those being obtained at the beginning of the second half of the twentieth century. He maintained that the standards would compare favorably with the university admission tests prescribed in the western countries (29, p. 77). He expressed concern for the low standard of education in the country and observed that the inferiority of the academic training imparted by Pakistani universities was shown by the fact that the graduates of the universities, who went to British and American universities for higher studies, enrolled in undergraduate or graduate courses (29, p. 77). The conference had emphasized that the secondary stage should be a complete stage in itself and that those who wished to enter a career upon completion of the secondary program should be able to do so with the requisite intellectual equipment.

The six-year National Plan of Educational Development of 1951-57 also highlighted the shortcomings of educational programs, especially programs at the secondary level. The Plan contained the statement regarding the fact that attempts were being made to recast and diversify the content of education, "particularly in secondary schools where the capacities and interests of pupils begin to manifest themselves and require proper nurture" (9, p. 373). However, as the authors of the First Five-Year Plan (1955-60) pointed out, the educational conditions remained unchanged. Very little diversification took place during the Plan period, and little action was taken to improve the general quality of the educational programs (9, p. 342).

This anomaly prompted the Commission on National Education 1959 to pinpoint the defects of the secondary education and to urge the same reforms of curricular, textbooks, teacher training, and teacher techniques which were articulated during the conference of 1951 and which were contained in the Six-Year National Plan.

The commission pointed out that secondary education served the purpose of training civil servants and office workers for government service. That the schools remained static, isolated from the social, economic, and industrial developments around the world because of the absence of technical and vocational subjects at the secondary level was a contention of the commission. Another contention was that matriculation from high school was a means to university admission and not an end in itself. The commission attacked curricula and teaching methods, maintaining that the secondary school curricula stressed memorization and rote learning and underscored the development of personality, character formation, acquisition of skill, and pride in the dignity of labor. The teaching methods were criticized because they resulted in merely mechanical communication of theoretical book learning and did not promote students' initiative, independence of thought, and self-reliance. Note was also made that teachers received insufficient training and worked in overcrowded classrooms for low salaries. As a general rule, teaching was regarded as a low status occupation in society (10, pp. 111-112).

The commission recommended that secondary education should be clearly demarcated in its objectives, purposes, curricular, and teaching methods from university education. The curricula should significantly relate to the environment and life of the people. It should prepare students for careers and should equip them intellectually, physically, morally, and vocationally for full lives as individuals and citizens. Education at the secondary level should equip youths with confidence and creative ability to meet the challenges of life in a fast-changing society (10, pp. 111-112).

The commission suggested a program encompassing a common core of subjects and supplemented with a diversity of courses. Such a program was designed to ensure the development in all pupils without regard to varying talents and traits of character. Members of the commission stated that the concept of teaching should be radically changed in order to prepare young people for an evolutionary society. Changes in teaching would necessitate alterations in teaching methods and reformation in teacher training (10, p. 261).

Education should foster in students a love of country, a spirit of nationhood and of service, as well as a knowledge and appreciation of the history of cultural and social patterns. Education should also create within youths a determination to correct national weaknesses and social injustices. Education in Pakistan should foster international understanding instead of narrow nationalism. Islamic beliefs endorse universal brotherhood. The commission emphasized that secondary education in Pakistan should be goal oriented in order for the student to achieve full development as an individual, a citizen, a worker, and as a patriot. Education should enable a student to understand the future, to enjoy the benefits of social progress, scientific discovery and invention, and to participate in economically-useful activities (10, pp. 111-112).

The weaknesses cited and the counter solutions offered by the commission were not new. One contribution distinguished the group's efforts from those of similar groups which had reported during the 1947-58 period. The commission presented its comprehensive, compact, and consolidated findings relative to all aspects of educational issues in the country, outlined suggestions for the solution of the identified problems, and proposed simultaneous implementation of the suggested changes throughout the country. Within ten years secondary schools were to be transformed into multipurpose schools, offering a wide choice of diversified courses.

Proposals were made that elementary education be made universally free, that the elementary program be extended to eight years, and that attendance be made compulsory. The duration of the secondary program was altered. Prior to the time of the elementary school changes, sixth, seventh, and eighth grade classes constituted the middle stage of the secondary program (10, p. 112).

At the time when the commission reported on educational problems, the First Five-Year Plan of 1955-60 was entering its final phase. The focus of this plan had been on the solution of major issues similar to those outlined by the commission. Writers of the First Five-Year Plan envisioned a distinct change in secondary education by 1960 through the introduction of courses in technical, commercial, and of agricultural subjects.

The Planning Commission incorporated all the proposals made by the National Commission on Education into the Second Five-Year Plan of 1960-65. In the secondary field, the plan made provision for the integration of the intermediate classes into the secondary education system. Recommendation was made for the improvement of secondary schools by bringing up to a specified standard their facilities, equipment, libraries, and the teaching techniques employed. Provision was made for the diversification of the programs in these institutions through the introduction of courses relevant to the world of work. The introduction of guidance programs was proposed in order that the special interests and aptitudes of students might be accommodated.

Emphasis was given in the Plan to the importance of content and quality of education. Quantitatively, the course offerings of the secondary school increased significantly. Qualitatively, however, no perceptible improvement was achieved. The main effort in this respect was the revision of curricula, but systematic, sequential revision was not attained. Curricula changes were made abruptly and in a haphazard manner. The result was disruption, rather than improvement, in the quality of education (39, p. 24).

The failure of the schools to achieve qualitative education and diversification of the secondary curriculum climaxed in the unemployment of educated youths who had no technical skill. The schools continued to educate people through courses in the arts. The educated manpower graduated by the schools could contribute little to the nation's economy. The Planning Commission of the Third Five-Year Plan (1965-70) stressed quality and gave priority to science and technological education. In order to support an educational system which would facilitate the transition of the society into an era of science and technology, one objective of the commission was to provide the physical facilities needed for technical and vocational education. Another objective was to provide the youth of the country with conditions conducive to the development of their individual capacities and character. To raise the quality of education at all levels and to widen the educational base at the primary stage were objectives outlined in the commission's plan.

These objectives referred basically to the quality of education. The emphasis on science and technological education was due to the growing change in the socio-economic structure of society. The physical targets contained in Table I indicate the rapid expansion envisaged at the primary stage. The projected annual increase in the involvements and admissions was too ambitious. According to the plan, the increase at the primary school level was to have been as much as 12.4 percent, and in vocational education as much as 43.2 percent. The rapid increase in the number of people enrolled affected the quality of education. At the secondary stage the diversification program achieved little success because of heavy costs involved. The big problem was and still is the

TABLE I

PHYSICAL TARGETS OF THE THIRD FIVE-YEAR PLAN (1965-1970)*

Item	Unit	1965	1970	Annual Rate of Increase (%)
Enrolment at primary stage	millions	7.3	13.1	12.4
Percentage of age-group in primary schools	%	45%	70%	. .
Annual production of primary teachers	thousands	19.0	40.0	16.1
Enrolment at middle stage	millions	1.0	2.0	14.9
Annual admission into vocational courses	thousands	8.3	50.0	43.2
Annual admission into polytechnics	thousands	4.1	14.0	27.8
Annual admission into engineering colleges and universities	thousands	1.6	3.3	15.6

*The Third Five Year Plan, p. 216.

nonavailability of adequately qualified teachers for science and technological subjects. The major setback to the Plan came when the war with India caused education to be given less priority than had been stipulated in the Plan (17, p. 144).

There had been unrestricted growth in traditional education programs even after the periods of the three five-year plans ended. The Fourth Five-Year Plan (1970-75) proposed to check the unrestricted growth of traditional education and to make the system of education more functional with respect to the future needs of the developing economy. The writers

TABLE II

BENCHMARK AND PHYSICAL TARGETS FOR THE FOURTH FIVE YEAR PLAN (1970-75)*

School Education	East Pakistan		West Pakistan		Pakistan	
	Benchmark for the 4th Plan (1970)	Targets for the 4th Plan (1975)	Benchmark for the 4th Plan (1970)	Targets for the 4th Plan (1975)	Benchmark for the 4th Plan (1970)	Targets for the 4th Plan (1975)
Primary stage						
No. of primary schools	29,440	34,440	40,600	63,000	70,040	97,440
Improvement of primary school	11,421	21,821	9,350	24,300	20,771	46,121
Enrolment at primary stage (classes I-V)	6.300 millions	9.100 millions	4.200 millions	6.500 millions	10.500 millions	15.600 millions
Enrolment as percentage of age group	55	67	46	65	50.5	66
No. of primary teachers training institutes	48	100	53	70	101	170
Annual output of primary school teachers	7,000	20,000	10,000	15,000	14,000	35,000
Middle/Junior stage (Classes VI-VIII)						
No. of middle/junior high schools	1,780	2,000	3,300	5,300	5,080	7,300
Enrolment at middle/junior stage	1.040 millions	1.540 millions	0.900 millions	1.400 millions	1.940 millions	2.940 millions

TABLE II--Continued

School Education	East Pakistan		West Pakistan		Pakistan	
	Benchmark for the 4th Plan (1970)	Targets for the 4th Plan (1975)	Benchmark for the 4th Plan (1970)	Targets for the 4th Plan (1975)	Benchmark for the 4th Plan (1970)	Targets for the 4th Plan (1975)
High stage						
No. of high schools (Classes IX and X)	3,420	3,970	1,900	2,400	5,320	6,370
Enrolment at high stage	0.395 millions	0.570 millions	0.375 millions	0.550 millions	0.770 millions	1.120 millions
No. of training institutions for secondary school teachers	13	19	14	18	27	37
No. of education extension centres	1	3	4	5	5	8
Annual output of secondary school teachers	1,700	4,000	3,100	4,500	4,800	8,500

*The Fourth Five Year Plan, p. 176.

of the Plan sought to create a system of education and training that would reflect an economically sensible distribution of resources among its component parts (17, p. 145). The strategy outlined for secondary education was that it should be governed by the needs for trained manpower. The development of secondary education at the middle stage would accommodate the increasing flow of pupils coming from the expanded base at the primary level. At the high stage, the overall expansion would be geared to equipping the youth with adequate knowledge and skill for productive participation in the labor force.

When the Plan was in early stages of implementation, the country was once again engulfed in a Civil War in its eastern wing and in a war with India. The conflict resulted in the emergence of the country's eastern wing as an independent nation known as Bangladesh.

The country's national Plan was reassessed and revised. With the enforcement of the Educational Policy 1972-80, all educational institutions were nationalized and education, up to the high school level, was made free.

The present government is exerting sustained efforts to make a massive shift from an age of aimless general education to a more meaningful age of technical education. In order to make the shift, schools must be staffed with trained teachers who possess adequate general knowledge and technical skills. The National Committee on Elementary Teacher Education proposed a program of teacher education in its report of June 1974.

System of Secondary Education

Structurally, secondary education is organized in three stages. The first stage is composed of the middle or junior secondary school which has grade six through grade eight for students between the ages of ten and twelve. The second stage is made up of the high school. The organizational structure at this level includes grades nine and ten for thirteen- and fourteen-year-old students. Completion of courses at the high school level leads to the attainment of the secondary school certificate. The third stage is the higher secondary or intermediate level which includes grades eleven and twelve. Young people in the fifteen- and sixteen-year age group who complete the program are eligible for higher secondary school certificates.

In addition to its different structural levels, secondary education is made available through three types of schools. Some middle or junior and high schools offer regional and national languages as the media of instruction. The government is now managing some superior type schools. Such institutions that appear to be exceptionally well organized are model schools, missionary schools, residential schools, and cadet colleges managed by anonymous organizations or the government. English is the language used for instruction in these schools. The schools in this group were structured for students from high income groups. Very high fees were charged by the schools. After the nationalization of schools, however, the conditions appear to have changed. The Maktabs and Madrassahs are elementary and high schools which offer religious teachings and allied subjects. These schools were managed by religious organizations with no or nominal fees. They provided all facilities to their students. Such schools are designed for those students who specialize in religious teachings.

Secondary education in Pakistan is still a preparatory stage for college and university education. Until scientific, technical, and vocational education are provided in all of the schools, the situation will not change. One serious criticism consistently leveled against the secondary education is that it has not been able to produce a majority of students who exhibit the qualities of good character, personality, and disciplined habits. Some educational leaders attribute this condition, in part, to the fact that three categories of schools exist; in each category different languages and values are emphasized. Some leaders believe that the absence of technical, vocational curricula is a contributing factor (17, p. 155).

According to the Fourth Five-Year Plan, the three categories of schools tend to create different value systems in the society and have little in common with each other. Authors of the plan noted the necessity of narrowing the gulf that exists between the various types of schools if education is to serve as a unifying force. The writers saw, as an important step toward this end, the evolvement of a comprehensive curriculum with a common base for all schools that would allow all students mobility from one type of secondary school to the other (17, p. 155).

The latest Education Policy of 1972-80 has not only nationalized all the educational institutions, but it has also made it possible for any student to seek admission on merit to the superior schools. The new policy has focused attention on the question of whether a national language should take the place of English as the language of instruction in the schools. The question is one which the legislature must decide. However, as long as there is not a common language used in all of the secondary schools, the distance between people of different regions of the country will not be bridged. Unity and appreciation of a common culture can be fostered when a national language is commonly used in all of the country's educational institutions (16, p. 3).

Teacher Education in Pakistan

Teacher education in Pakistan dates from developments in the first quarter of the nineteenth century. The first normal school was established in Lahore in May, 1856, and the first secondary teacher college around 1880. Classes for the Bachelor's Degree in Teaching (B.T.), a two-year course of study, were started in this secondary training college around 1905 (36, p. 218). In 1944 the report on Post War Educational Development recognized that all teachers must be trained (5, p. 2)

After attaining independence in 1947, the Pakistan government realized the importance of education in a free country and started making plans to remove earlier colonial influences. During the First All Pakistan Educational Conference in 1947, committees on primary and secondary education were formed which recognized the role of the teacher in Pakistan. There was unanimous agreement "that a properly trained and reasonably well paid teaching profession was essential to the building of a great state" (7, p. 33). These committees also stressed the desirability of adding research departments to training institutions to study problems related to teaching. Noting that the introduction of free and compulsory education would require a large number of teachers, the committees suggested that the provinces adopt special measures to meet this need; one such measure was the creation of short-term courses for training.

Addressing the meeting of the Advisory Board of Education, Fazlur Rahman, in the 1948 annual session, stressed the need for teacher training and for quality education. He observed that there was an urgent need to improve the quality and status of the teacher--to make education a dynamic reality. He further said it was the teacher who had to instill into the minds of the students the meaning and significance of the basic concepts on which the educational system was based (29, p. 34).

Addressing the 1949 and 1950 annual sessions of the Advisory Board of Education, Rahman again expressed his concern for education in Pakistan. He said that the problem confronting the country demanded immediate solution by an embodiment of Islamic principles in the educational system. He called for a recasting of syllabi and curricula on the basis of those principles. Equally important was the need to train teachers in the appreciation of the country's educational ideology. Rahman emphasized that in the final analysis everything depended upon the caliber of the teacher and the enthusiasm he brought to bear on the performance of his task (29, p. 35). Recommending that the teacher always treat himself as a student, Rahman urged continuing teacher awareness that the world was dynamic and the boundaries of knowledge were extending in all directions every day. New discoveries in knowledge of the physical universe must be imparted to students continually; thus the teacher must be thoroughly prepared to impart that new knowledge to students in a scientific, interesting, and effective manner (29, p. 35).

Success could not be achieved without a well-planned and coordinated program for teacher education. From the year of independence in 1947 until 1950 Pakistan was beset with numerous problems in all spheres. In education there was complete dislocation of the existing system because of a mass exodus of Hindus and Hindu teachers in India. Hindu teachers had comprised about 98 percent of the total teaching community in the areas constituting Pakistan, which were Bangal, Punjab, Sind, Balochistan, and Northwest Frontier Province. The

Muslim population of these areas had been repressed by the British government educationally, economically, and socially. At the time of independence, the Hindu exodus created a vacuum in the field of education and also in the fields of trade and commerce. All-out efforts of the national government were directed toward reconstituting the faculties of educational institutions, which had almost ceased operation. Immigrant Muslims from India, comparatively better educated than the Hindus, were absorbed in these institutions to meet the need for teachers.

Table III presents the number of secondary schools, total enrollments, and number of teacher training colleges in 1946 before independence and five years later. These figures

TABLE III

EDUCATIONAL PROGRESS DURING 1946-1951

Secondary Education	Educational Development 1946	1951
Schools	8,840	6,386
Enrollment	1,014,348	1,166,142
Teacher Training Colleges	4	5

indicate a sharp decline in the number of schools in 1951; the enrollment figures, however, had by comparison risen sharply. There was only a marginal increase in the number of teacher training colleges.

By 1951 conditions were stabilized. The Six-Year National Plan for Educational Development, 1951-1957, was formulated, emphasizing education and teacher training. Because it was completely unconnected to any overall plan of social and economic development based on an analysis of available resources, it could not serve as a concrete plan of action. Nevertheless, during the first few years of independence some educational expansion took place, evidenced by the fact that public expenditure for the year 1954-1955 was two and a half times as much as for 1948-1949. The enrollment in primary schools increased by 24 percent; the number of teachers doubled (6, p. 50).

Until the First Five-Year Plan of 1955-1960 was formulated and made operative, the condition was, as worded in the plan, "gaps and maladjustments in the growth of the educational system." The plan concluded that changes since independence were quantitative rather than qualitative, and that the main task of the plan should be to achieve a better balance in the educational system and to encourage the qualitative changes (9, p. 543).

In practical terms this called for concentration on the training of teachers at all levels, the provision of facilities for technical and vocational education, the promotion of teaching and research in science and technology, and the improvement of existing schools. The overall objectives of this plan were to produce intelligent leadership and responsible citizenry, to extend educational facilities at all levels, and to produce trained manpower to meet the needs of the country. The plan had therefore proposed the raising of the basic teacher qualifications and the improvement of training institutions and their curricula (11, p. 37). Courses at the post-graduate level in education were introduced at the teacher training colleges at Lahore, Karachi, and Dacca. Departments of education were opened at the Universities of Hyderadad and Rajshahi in former East Pakistan. Table IV

TABLE IV

EDUCATIONAL DEVELOPMENT IN FIRST FIVE YEAR PLAN PERIOD

	1954-55	1959-60
Primary education		
Schools	41,500	44,200
Enrollment	4,266,000	4,706,000
Secondary education		
Schools	5,475	6,000
Enrollment	869,000	1,099,000
Teacher education		
Annual output, primary	7,400	7,400
Annual output, secondary	1,300	1,800
Technical education (including technical, engineering, medical, agricultural)		
Annual output	1,121	1,767
Colleges and universities		
Enrollment	66,766	117,566

*Source: The Second Five Year Plan, p. 339.

indicates the educational development during the First Five-Year Plan period, revealing increases in all fields of education. The most serious failure of this plan was in teacher training at the primary level; although this was a matter of high priority, the output of primary teachers did not increase at all. The output of teachers at the secondary level had increased, but very modestly and short of the plan target of 1840 (11, p. 344). Qualitatively there was not overall improvement.

Before the Second Five-Year Plan was finalized, a significant event for Pakistan education had occurred; this was the announcement of the Report of the Commission on National Education in 1959. It dealt with underlying educational policy matters, such as the role of higher education, the examination system, methods of reforming the curriculum, the teacher training program, and other matters. This report described teachers as "potential nation builders" (10, p. 265). The training and supply of teachers were considered by the commission as matters "of national importance" (10, p. 274). The commission frankly admitted that the actual situation in Pakistan regarding teacher training facilities, teacher salaries, and service conditions was "far from ideal" and consequently it did not attract the most suitable candidates (31, p. 39). Khan said:

> Today, owing to a variety of courses mainly economic and social, the teacher finds himself relegated to a position of inferiority. This is so because the

> cream of the nation's intellect is skimmed off by what may be termed "superior service," because of their prestige and money value. Little surprise if there is general complaint about poor quality of teachers (25, p. 21).

The National Commission of 1959 identified the same objectives for the improvement of both teacher education and teacher status. These objectives were that the teacher should (1) be academically well-trained in the subjects he teaches; (2) have had sound professional training in how to teach his subjects; (3) have had sound professional training in how to understand the children in his charge; (4) have a deep sense of professional honor; (5) have a security of tenure and scale of pay commensurate with his status; and (6) be working in an environment which honors him for the contribution he makes to society (10, p. 274).

To realize these objectives, certain minimum professional standards were urged for admission to teacher training institutions and the duration of teacher education programs was extended. The commission recommended the standards summarized in Table V (10, pp. 260-261).

The proposals and recommendations of the National Commission of 1959 formed the basis of a large part of the chapter on education and training of the Second Five-Year Plan, 1960-1965. This plan recognized important requirements in teacher training. It proposed compulsory schooling for the age group six to eleven within ten years and for the age group eleven to fourteen within another five years. It further proposed

TABLE V

PROFESSIONAL STANDARDS FOR TEACHERS

Type of Teacher Training Program	Teacher Qualification	Classes for which Teachers are to be Trained	Duration of Teacher Education Program	Certificate Diploma or Degree Awarded
Primary	Secondary school exam. certificate 10 yr. HS graduation	I–V	1 year 2 years	Certificate Education (CED) Primary Teacher Certificate (PTC)
Secondary (middle)	Higher secondary school exam. certificate intermediate or junior college level, 12 years	VI–VIII	1 year	Certificate of Teacher (C.T.)
Secondary (HS)	Bachelor's degree in any field 14 years	IX–X	2 years	Bachelor of Education (B.E.) Bachelor of Teaching (B.T.)
College Teaching	Master's degree in any field	XI–XII	. . .	Training is not a prerequisite but preferred, i.e., M.Ed. or B.Ed.

diversification of secondary school curricula to prepare students for different vocations. The plan observed that young people of real ability should be recruited for the teaching profession. Good training in teaching method and periodic refreshing of subject matter and teaching methods were advocated. A sense of professional integrity and responsibility for the development of student character were cited as teacher requisites (11, pp. 343-344).

The first half of the second plan period showed some definite progress. Although the targets of the second plan were not met adequately in all sectors, substantial progress in teacher training was achieved.

The Third Five-Year Plan, 1965-1970, gave greater recognition to education as a vital national investment and a major determinant of the country's economic growth. It noted some basic objectives for achieving a well-balanced quality education at all levels. According to the plan, this could be achieved through the introduction of science and technology, facilitating the transition of Pakistani society into the contemporary world and promoting political, social, and economic development (17, p. 185). For teacher education, the plan observed that without improvement in teacher quality, the great educational breakthrough envisaged by the plan's increased allocations might be only quantitative and thus a negative factor in the economy. This plan provided for improvement of teacher training institutions, improved curricula, and higher academic standards for teachers. The plan made a pointed reference to the teaching of appropriate age-group psychology and to the study of laws of learning. Education as a subject of study either as an elective or as a specialization area was also emphasized.

The Third Five-Year Plan in the field of education could not be implemented in its entirety because of war with India in 1965; financial allocations were diverted to other sectors of economy and industry. The Fourth Five-Year Plan, 1970-1975, therefore made a special reference that education was accorded priority in the drafting of all the plans; this was not, however, reflected in the implementation of those plans. Required funds were denied to the education and training sectors because of pressure for resources in other economic areas (17, p. 143).

The Fourth Plan based its objectives on the framework of the New Education Policy of 1970. The objectives were to check the unrestricted growth of traditional education and to make the system of education more functional with respect to future needs. The plan recognized the great importance of quality in education and the crucial role of teachers in raising standards of instruction. At the secondary teaching level, the Fourth Plan stressed training for teachers of science, mathematics, and diversified courses and proposed new training programs for these teachers, who would be in great demand in the future. Realizing the urgent need for improvement of the quality and standards of training programs, the Fourth Plan encouraged educational research programs by the Institutes of Education and Research (17, p. 165).

Since the announcement of the Educational Policy, 1972-1980, far-reaching changes at all levels of education have been made in Pakistan. Education up to high school is now free; all the private educational institutions have been nationalized; the school and teacher training curricula are being revised under the guidance of the National Curriculum Bureau in coordination with the Provincial Curriculum Centers. Efforts are being made for a massive shift from aimless general education to a meaningful agrotechnical education.

Institutional Arrangement of Teacher Preparation

In Pakistan, professional training institutions are separate from the academic institutions. The continuance of such a separation is a British legacy that is found in many aspects of educational or social importance. The professional institutions of training include normal schools, teacher training colleges for secondary teachers and/or primary teachers, departments of education, and institutes of education and research.

The normal schools, also known as teacher training colleges, have been established to provide professional training to elementary teachers only. Most normal schools provide two-year professional training and prepare condidates for the Primary Teacher Certificate (P.T.C.). The minimum qualification for such a certificate is high school graduation after ten years of schooling. Some teacher training schools or colleges prepare teachers of English and other subjects for the middle schools, grades six through eight, and award graduates Certificates of Teaching (C.T.). The Certificate of Teaching was changed to Certificate of Education. In order to obtain a teaching certificate, the candidate had to pass the Higher Secondary Examination which was equivalent to a junior college education. The period of eligibility for obtaining a C.T. or C.Ed. is one year. The curriculum of this one year of teacher training emphasizes professional foundation courses, teaching methods and techniques, and student teaching.

The teacher colleges for secondary high school teachers are government managed training institutions. In the past, these institutions enrolled only teachers from the government high schools. Ever since all the privately-managed educational institutions were nationalized by the government after March 15, 1972, these training institutions now admit their teachers for training. The prescribed requirement for training teachers at this level is Bachelor's degree in arts and sciences. The duration of the professional course is one year and the degree awarded at the end of this course is a Bachelor's degree in Education (B.Ed.). These colleges are normally affiliated with the universities which prescribe the curriculum, set the final examination, and award the B.Ed. degree. Table VI shows the number of teacher training institutions

TABLE VI

NUMBER OF EDUCATION INSTITUTIONS

	Teacher Training			
	1966-67 Total	Revised (for Girls only)	1967-68 Total	Estimated (for Girls only)
Teacher training institutions	148	28	148	28
Training units attached to high schools	12	11	12	11
Training schools	115	15	115	15
Institute of education and research	3	. . .	3	. . .

which were functioning during the years 1966-1967 and 1967-1968. These figures have now undergone drastic change since the dismemberment of the country's eastern wing now known as Bangladesh. There are now fourteen teacher training institutions for preparing secondary school teachers; their annual number of graduates is 3,100 (36, p. 173).

The degree of Master's in Education (M.Ed.) is offered by the Institutes of Education and Research in the universities. There are two programs for obtaining the M.Ed. degree; the first is a two-year course for students with a M.A. degree, and the second is a one-year course for teachers with the B.Ed. who have taught a minimum of two to three years. The institutes also conduct courses for the M.Ed. degree in

Industrial Arts Education, Business Education, and Physical Education. There two Institutes of Education and Research, one in the Province of Sind at Hyderabad and the other in the Punjab at Lahore. The colleges of education affiliated with the Universities of Karachi and Peshawar in North West Frontier Province offer courses for the Master of Education degree as well as for the Bachelor of Education. Other training colleges, which are located throughout the country in the different provinces, offer only B.Ed. courses of one-year duration.

Table VII gives the names and locations of all the training institutions. The Government College of Education at Karachi has instituted a semester system but has not altered the examination procedures which are conducted at the end of the year. Generally, an academic year is nine months long and is comprised of two long semesters of four and a half months each. Universities and colleges do not operate during the three months of summer.

Phases of Professional Preparation

The professional preparation offered in the training institutions described above consists of a theoretical phase and a practical phase. The practical phase is student teaching.

The theoretical phase is composed of several professional courses, all of which are offered during one academic year. In the case of elementary teachers, these courses are offered

TABLE VII

TEACHER TRAINING INSTITUTIONS FOR SECONDARY AND HIGHER SECONDARY SCHOOL IN PAKISTAN

Name	Province	Location	Bachelors	Masters
Institute of Education and Research	Sind	Hyderabad	B.Ed.	M.Ed.
Government College of Education	Sind	Karachi	B.Ed.	M.Ed.
Government Training College	Sind	Sukkur	B.Ed.	. . .
Institute of Education and Research	Punjab	Lahore	B.Ed.	M.Ed. M.A.(ED)
Central Teachers' Training College	Punjab	Lahore	B.Ed.	. . .
Lady Machlagan College for Women	Punjab	Lahore	B.Ed.	. . .
Government Teachers' Training College	Punjab	Rawalpindi	B.Ed.	. . .
Government Teachers' Training College	Punjab	Lyallpur	B.Ed.	. . .
Government Teachers' Training College	Punjab	Multan	B.Ed.	. . .
Government Teachers' Training College	Punjab	Bahawalpur	B.Ed.	. . .
University of Balochistan	Balochistan	Quetta	B.Ed.	. . .
College of Education University of Gomal	N. W. Frontier	Peshawar	B.Ed.	. . .
North West Frontier Department of Education	N. W. Frontier	Dera Ismail Khan	B.Ed.	. . .

in two academic years. These courses vary little from one professional center of education to another.

The examination in all the theory courses consists of eight examination papers of three hours' duration each. Each paper is assigned a weight of one hundred marks. The examinations are externally administered and scored; however, the instructional staffs of the training institutions participate indirectly in this examination. Participation is indirect in the sense that the instructional staff does not know who the candidates are, since the answer books bear coded numbers. An example of the scheme of studies for the Bachelor of Education Examination at the University of Karachi is:

1. The course of study for the Degree of Bachelor of Education shall extend over one year.

2. No candidate shall be admitted to the course of study for the Bachelor of Education unless he has passed Bachelor's Degree (Pass) or (Honours) Examination in Arts, Science or Commerce, B.O.L. B.Sc. (agr.), Bachelor of Engineering or B.Sc. in Home Economics of the University of Karachi or any other university recognized as equivalent thereto.

3. The examination shall consist of two parts.
   Part I Theory of Education
   Part II Practice of Teaching

   The examination in the Theory of Education shall consist of eight papers of three hours duration each as detailed below:

Paper I	Philosophy of Education	100 marks
Paper II	Educational Psychology	100 marks
Paper III	History of Education	100 marks
Paper IV	Methodology	100 marks
Paper V	Educational Administration, School Organization, and Health Education	100 marks

Paper VI and VII	Methods of teaching (any two) of the following Secondary School subjects	100 marks

a. English	h. Geography
b. Urdu	i. Home Economics
c. Sindhi	j. Islamiat
d. Mathematics	k. Art
e. Science	l. Commerce
f. Social Studies	m. Physical Education
g. History	

Paper VIII	Islamiate or Cultural Heritage of Pakistan (For non-Muslims and foreigners)

4. Examination in Practice of Teaching shall consist of:

    a. Assessment of the candidate's practical work conducted under the supervision of the staff of the college and other trained teachers of the institution in which the candidate has done his Practice of Teaching (Student Teaching) 100 marks

    b. Assessment by the panel of examiners of the practical skill in the teaching of two lessons of 100 marks each. 200 marks

Student Teaching: The Practicum Phase of Teacher Education

The student teaching is done in a period of eight to ten weeks after only a month's orientation in teaching methodology. The teacher candidate is required to teach a certain number of lessons, usually thirty to forty, in any two subjects mentioned under Paper VI and VII in the above example. Teaching is done in a high or middle school assigned by the person in charge of the student teaching program (38, p. 3). He is supervised by members of the training institutions and trained teachers of the school in which the teacher candidate is placed for student teaching. The whole work of supervision is done without any remuneration to the supervisors or college co-ordinators by the training institutions or the provincial governments. Officials at the practicing school may or may not accept the student teachers which the training institutions wish to assign because representatives of the institutions do not make any formal contact with the head of schools. Usually the supervising teachers, who wish to establish their status and importance as experienced persons, approach the person in charge of the student teaching and request a certain number of trainees. Because laboratory schools are rarely operated by training institutions in Pakistan, student teachers are assigned to schools within three or four miles of the institution. Only schools within close proximity of the training institutions are utilized because transportation is not provided by the college. The Institute of Education and Research under the University of Sind provides a nominal allowance to its coordinators and school supervisors.

Model Lessons

Within two or three weeks of the commencement of the academic year, model lessons in various school subjects are delivered to the student teachers by the subject specialists of the training institutions. During this orientation to the basics of the methodology of teaching, students are encouraged to participate freely in the evaluation and discussion of the model lessons.

The model lessons or demonstration lessons, as they are called in some training institutions, usually follow the five formal Herbartian steps which the student teacher has to emulate necessarily when he prepares his lesson plans (see Appendix A).

Observation of Lessons

Observation of forty practice lessons, delivered by fellow students, is another requirement for student teachers. Records of these observations are supposed to be made and signed by the supervising teacher. For observation, as well as for lesson plans, special diary and lesson plan forms are printed and provided by the training institutions. These are retained as documents of record and must be furnished on demand to the controller of examinations on the eve of final examination.

Each student teacher prepares a detailed lesson plan after consultation with the class teacher and subject teacher and under the direction of the supervising teacher. The lesson plan is presented to the supervising teacher as the student teacher enters the classroom. The student teacher, while teaching the class, normally is not expected to refer to his plan. The appraisal of the supervising teacher follows the end of the lesson on the same day. The supervisor makes his comments on the good and bad aspects of the delivered lesson, giving his suggestions for future lessons. The lessons may be rejected and redone, but this happens rarely.

Training institutions generally lack visual aids and the student teacher has to provide his own charts, pictures, maps, and other aids necessary to implement his lesson. All of the visual aids are kept from the view of the students in order to prevent distracting attention from the teacher. The teacher introduces the aids at the appropriate time. The primary motive in teaching art education to the student teachers is to train them in the art of constructing such aids. But such a kind of teaching at this stage of a teacher's life proves no help. Many teachers think that they lack aptitude for art and take little interest in the art classes.

Practical Examination of Student Teaching

The unique feature of the training program which leads to a degree or to a diploma is the practical examinations which are held prior to the written theory examinations at the end of the school year. During the practical examinations the classes are suspended, and each student makes preparation to teach one lesson in each of the two teaching fields in which twenty lesson plans were prepared during practice teaching. The examination schedule is proposed by the training institutions which assign the grade levels, the examiner, and the date of the examination. The student has to make his choice of topics to be approved by his subject specialist of the training institution.

The lesson is evaluated by a committee made up of one external examiner and one internal examiner. Both examiners are appointed by the university in consultation with the principal of the training college or head of the Education Department. Each examiner may subjectively award the student up to one hundred marks or 100 percent for his performance. The three passing grades are: Class I, 60 percent or above; Class II, 45 to 59 percent; and Class III, 33 to 44 percent. There are rare instances in which a student teacher fails in his practical examination and must, therefore, repeat the year's work. In theory examinations, the failures are comparatively greater and those who fail in more than three papers have to take a compartmental examination which is conducted within two months after the announcement of the final examination results is made by the university and published in the newspapers. The compartmental examination consists of specific subsections of the final examination.

Assessment of the Student Teaching Program

Most of the training institutions do not have laboratory schools to provide practical training to student teachers. Certain conditions in the student teaching process which restrict the effectiveness of the program are:

1. Little communication is maintained between the head of the training institutions and the head of schools in which the student teachers are assigned. The person in charge of the student teaching program, usually a college teacher,

arbitrarily appoints supervising teachers from different schools. Prior consultation or consent from the head of the schools is rarely sought.

Whereas a coordinated effort is the fundamental requirement for running a successful program, no record of administrative planning is available. An attitude of superiority and inferiority between the staff of the teacher training institutions and the schools keeps the atmosphere tense and unproductive.

No remuneration is provided to the supervising or even the coordinating teachers for conducting student teaching programs. The absence of material attraction creates no incentive for the supervising and coordinating teachers.

Neither the training institutions nor the schools provide visual or audio-visual aids to student teachers; hence, the only aids commonly available in the schools are globes, history and geography maps. Student teachers who can afford to do so buy pictures and models prepared by professional artists.

The presentation of lessons is teacher-centered and formalized. The student teacher is not encouraged to introduce individual or group projects, reports, or other instructional techniques which are considered modern methods of teaching. The student teacher who attempts any innovative procedure is usually severely criticized.

Student teachers participate only in the academic phase of a teacher's work. There is no provision for participation in any of the school's activities or community projects.

The cooperating teacher or supervising teacher of schools is not considered a part of the training institution. His involvement in the program is not encouraged.

There is no requirement that the student teacher prepare a weekly or biweekly schedule which could be indicative of the time, class, and date when he would be giving his lessons. Neither the supervising teacher or the coordinating teacher is expected to maintain a diary, even though diary records might be helpful in determining the details of the field work done.

Development of Curriculum

The gradual process of curriculum change in a nation's educational system tends to reflect the relatively gradual evolution of that society itself. The immediate need in Pakistan after the independence was for a complete revision of curricula and syllabi in order to eliminate or moderate the dominance of British culture and thought. The nature and contents of the British-inspired curriculum were predominately theoretical, sterile, and bookish. Fazlur Rahman stated: "In Pakistan the educational system has yet to subserve the objective of national development. The system is materially useless because it discourages the production of marketable skills. The curricula are overburdened with much that is vague and utopian" (29, p. 13). Hence, efforts were made to modify the curriculum so that it would be more in line with cultural ideals and would more accurately reflect the aspirations of the new generation.

There were many problems involved in restructuring Pakistan's educational system during the first years of independence, but the primary problem was that of curriculum revision. The annual session of the Advisory Board of Education of 1949 clearly made this point: "In overcoming these impediments, our first and foremost task is obviously the complete revision of our existing curricula and syllabuses and, unless this is done, all talk of educational reconstruction would be so much sound and fury signifying nothing" (29, p. 22). In 1950 this point was again reiterated by the chairman, who challenged educationists to tackle the problem courageously and to refashion curricula to the extent that the pursuit of knowledge would become a criterion of human well-being and progress (29, p. 38).

The Secondary School Curricula

The pattern and design of curriculum, particularly that of the secondary school, remained unchanged despite early efforts at revision. In 1951, the first attempt was made to formulate a six-year National Plan of Educational Development. This plan emphasized the importance of curricula reorganization on a scientific basis in order to provide for the requisite diversification of syllabi to suit varying interests, aptitudes, and requirements of students at different levels.

However, lack of financial support, shortage of qualified teachers, inadequate facilities, and other handicaps blocked headway in this endeavor (23, pp. 253-257).

Curriculum revision was once again emphasized in 1959 by the Commission on National Education. This commission pointed out that the secondary school curriculum continued to be of the traditional literary type dating from the last century and retaining many of its undesirable characteristics. The commission recommended that a new secondary school curriculum be devised which was flexible and which offered diversification in meeting the needs of the society (10, p. 118). It further recommended that the core of courses which every student would be required to take should provide adequate knowledge of subjects that are used by citizens who lead useful and happy lives in a fast-developing society. The curriculum should include additional subjects and training that students would need in order to prepare for specific vocations and careers (13, p. 24). Heavy emphasis was placed on the teaching of science, mathematics, and practical arts because of the general needs of the occupational fields and the economic advancement of society. The commission suggested that educational programs be in a constant state of review and revision.

The scope and emphasis of the curriculum at the middle and high stages is outlined in Tables VIII and IX. The class periods indicated are forty minutes in length (12).

TABLE VIII

SUBJECTS OF STUDY AT THE MIDDLE STAGE OF SECONDARY EDUCATION

Subjects	Periods per Week 40 Minutes Each
Compulsory subjects	
Urdu or Bengali	8
English	8
General Mathematics	7
Social Studies	5
General Science	5
Islamiat	3
Physical Education	2 or 3
One subject within the area of arts and crafts, arts, and practical arts . .	4
Elective subjects	4-6
One or two subjects are selected from the following: Arabic, Art, Bengali, Dancing, Music, Gujrati, Pali, Pashto, Punjabi, Persian, Sanskrit, Sindhi, Urdu	

Within each of the elective groups in Table IX, at least four periods per week must be devoted to mathematics.

TABLE IX

SUBJECTS OF STUDY FOR HIGH SCHOOL SECONDARY STAGE OF SECONDARY EDUCATION

Subjects	Periods per Week 40 Minutes Each
Compulsory subjects	
Urdu or Bengali	6
English	9
Social Studies	4
General Mathematics	6
General Science	5
Physical Education	3
Elective subjects	
One of the following group is selected for study:	
Humanities group	13
Commerce group	13
Science group	18
Industrial Arts group	18
Home Economics group	18
Agriculture group	18

Manual Work

In addition to the regular class periods, there are seventy-two periods a year of compulsory manual work, which is undertaken on a weekly or monthly basis and is organized by the school according to local conditions.

Proposed Changes

The latest development in the field of secondary school curricula is a tentative model announced by the Ministry of Education and Provincial Coordination on March 20, 1973. The opinions of educators, scholars, teachers, students, and parents regarding the model were elicited. Details of this curriculum are given in Appendix B.

The proposed scheme of studies contained four components and lists of elective subjects in the two academic and vocational areas. Appendix B shows the courses required in each component. The components are grouped into areas of social studies, science and mathematics or general science and mathematics, vocational subjects, and physical education. Flexibility of the program is provided by allowing the students to choose electives and, in some cases, required courses from the Y (academic) and/or Z list of subjects. The Z list of subjects is basically the same as the list of elective subjects provided in the current curricula.

The need for these recommended changes is obvious and was even recognized by the designers of the third and fourth Five-Year Plans. The only criticism ever made was the insistence of a great many people that the expediency to gain economic progress through such changes should be made but not at the cost of overlooking teachings which would create a national identity such as patriotism, loyalty, and citizenship bonds (13, p. 26).

Objections to change gained support and finally erupted in the form of student strikes, protests, and general unrest on the college campuses. The Commission on Student Problems and Welfare proclaimed that the National Commission of 1959 Reforms had not done anything to inculcate in the youth of the country the moral and spiritual doctrines and principles of Islam or to infuse in them the ideology which led to the creation of Pakistan, but rather tended to make the youth poor imitators of the unislamic ways of the west. The Commission of Student Problems and Welfare further criticized the Commission on National Education for saying a great deal about the teaching of science and mathematics, industrial arts and agriculture, and mechanical and technical training, but coming forth with only one positive recommendation regarding Islamiyat teachings. The recommendation was made that Islamiyat be taught as a compulsory subject to all Muslim students in the primary and middle stages and offered as an optional subject thereafter (13, p. 264). Such recommendations were viewed by the Commission on Student Problems and Welfare as inadequately resolving the problem by failing to give students insight into the ideology that brought Pakistan into being as well as failing to promote the spirit of national pride and loyalty (13, p. 24).

The same commission stated the general feeling of the people about the textbooks prepared by the textbook boards, in the light of the National Commission's recommendation:

> It is alleged that the books so prepared neither advance the objectives laid down by the commission nor are they notably better than the old textbooks . . . they are stereotyped and unimaginative and designed merely to give such elementary knowledge of the subjects, mostly in a tabloid form, as can be learnt by rote. There is little in the syllabi which requires a student to make an intelligent use of his knowledge (13, p. 26).

The commission went on record as having examined the syllabi, seen the textbooks which were produced, and concluded that the complaints were not altogether baseless.

The same emphasis was found in the subsequent educational policies for reform given in 1969 and 1972. In spite of the recommendations and prophesies which were made from time to time, the curriculum remained very much as it was prior to the time of independence. Quantitative growth has far exceeded qualitative growth. As seen from the facts and figures, however, only 8 percent of the Pakistani youth of secondary and intermediate age attend school and college. An estimated 87 percent of the young people in the Union of Soviet Socialist Republic attend school, while about 86 percent of the comparable age group in Japan attend. Although the estimate for the United States approaches 100 percent, only about 75 percent of the youth of intermediate and secondary school age attend school in the United Kingdom (18, p. 9).

Furthermore, over 70 percent of the students in secondary schools and general colleges are presently enrolled in art subjects which is the reverse of conditions in such industrialized nations as the United States, U.S.S.R., and Japan. These figures negate the claim and hope that the massive shift from academic subjects to science, mathematical, and technical subjects will produce an impact or change the economic or social structure of Pakistan.

Curricula in Teacher Education

The curricula for secondary school teachers is designed by the university. The guidelines are provided by the Central Ministry of Education and a coordination is maintained between the Federal Ministry of Education, Provincial (state), Ministry of Education, and the universities. The development of the characteristics of a good teacher has remained the major objective of any teacher training program. This objective has also been the guiding force in designing of the curricula for the training institutions.

We find several notes spelled out for framing teacher training curricula along with what we have mentioned while describing the objectives of teacher education. The prospective teacher should have adequate liberal education and teaching aptitudes and understanding of the child and the youth, and should be provided experience and training of pedagogy in teaching method, educational theory, adolescent psychology, and educational practices. The Advisory Board of Education in 1950 suggested the introduction of a course on Islamic ideology which would be a mandatory requirement in teacher training institutions. The course was not instituted. The Commission on National Education encouraged the introduction of professional subjects which not only enhance the student's knowledge of teaching but which also provided him with an understanding of Pakistani youth and national conditions. A high sense of professional ethics and understanding of the role of the teacher in building the nation was also advocated (10, p. 261).

The following subjects are included in the professional education of secondary school teachers in almost all the secondary teacher training institutions of Pakistan: (1) educational psychology; (2) philosophy of education and curriculum development; (3) administration and school organization; (4) history of education; (5) principles of teaching; (4) history of education; (5) principles of teaching; (6) educational and vocational guidance; (7) educational measurement; (8) methods of teaching any two subjects: Urdu, English, Sindhi, mathematics, science, social studies--history, geography, and civics, home economics, Islamiat, art, commerce, physical education; and (9) Islamiat or cultural heritage of Pakistan (for non-Muslims) (21, pp. 5-6).

Recently, curriculum committees consisting of professional educators and subject specialists have been set up in each province in order to evaluate the effectiveness of the existing curricula in physics, chemistry, and mathematics and to formulate, develop, and improve them in the light of the changing needs of the country (35, pp. 5-10).

Organization of Instruction and Teaching Technique

By and large, both primary and secondary teacher training institutions tend to be relatively small in terms of the size of enrollment--the majority of institutions having around three hundred enrolled students. The size of the institutions seems to be dictated by the extent of facilities available in an area for practice teaching.

The class size is generally about one hundred, but smaller groups are formed for special purposes and special classes. The teacher-student ratio varies from one to thirteen to one to thirty in the institutions for secondary teacher training.

The teaching staff is composed of full time employees, with a few exceptions such as music teachers or medical officers to teach hygiene. The ratio of teachers to students works satisfactorily though an improvement is contemplated for better teaching and supervision. At present a teacher has to work fourteen to twenty-seven hours a week unless he has administrative or supervisory duties, in which case his teaching workload is lightened. This teaching load includes the time devoted for the supervision of student teaching as well (36, p. 118).

The traditional lecture method still holds the field in most institutions for primary teacher training, but some institutions have also introduced the assignment system. Some have also started to make use of new techniques like group discussions, seminars, et cetera. Arrangements are progressing for introducing educational television in selected centers (36, p. 118).

Educational Technology

For the purpose of promoting the use of educational technology in schools, special offices have been established for preparing and producing audio-visual aids materials in the Central Ministry of Education and provincial coordination at Islamabad and in the Departments of Education in the regions. The Institute of Education and Research and the Education Extension Center at Lahore have set up cells for training teachers, arranging film shows, and for carrying out research in the use of audio-visual aids in teaching. They also maintain films and filmstrip libraries which are made available to schools and teacher education institutions in their respective areas.

Educational Television Programs

Television was first established in Pakistan in 1964 with the setting up of a pilot station at Lahore. Other pilot stations were soon installed in other provinces. Although the existing programs normally include general informal education features, the use of television as a medium for improving classroom instruction has yet to be fully explored.

In April, 1971, the Central Ministry of Information and the Central Ministry of Education and Scientific Research initiated an experimental project in educational television in Lahore. The pilot project aims at telecasting instructional television programs to supplement classroom teaching at the secondary level. The project in its experimental stage was scheduled to start the ETV programs in twenty-five selected schools from the Lahore Secondary School Board Area with lessons in mathematics and science to be telecast during school hours.

As the pilot project for introducing the ETV programs was carried out in the Lahore Secondary Board Area, the Government of Panjab has established an educational television cell at the Education Extension Center. The objective of this cell is to coordinate these programs with the Central Educational Television Cell at Rawalpindi and with the ETV cell at the local television station at Lahore. The ETV cell at the Center also provides assistance in suggesting topics for the programs and in identifying teachers who would take part in carrying out the programs. In addition, the Center assists in providing training facilities in educational television for the teachers of schools selected for the pilot project.

School Radio Programs

A school radio broadcast officer is attached to each radio station in Pakistan, and nearly all radio stations in Pakistan broadcast special programs for schools. At present, most programs are intended for secondary school students, and are broadcast for about one hour daily, covering from two to three subjects. Lessons are put on the air according to a fixed schedule.

Programmed Instruction

Programmed instruction as a means for improving the educational standards and strengthening the teaching-learning processes has recently attracted the attention of various professional bodies in Pakistan. Important research on the feasibility of introducing programmed instruction in teaching mathematics and sciences has already been carried out with encouraging results in the Institute of Education and Research at Lahore, and the College of Education at Peshawar. Programmed lessons have been experimentally adopted for use by teachers undergoing inservice training at the Education Extension Center at Lahore.

These programs are being provided in accordance with the recommendations of the National Commission on Education of 1959 and the provisions made for them in each of the four Five-Year Plans 1955-1965, 1960-1965, 1965-1970, and 1970-1975. These facilities are hardly available to less than 5 percent of the school population. Except in some of the big cities many of these facilities are neither known or available to teachers and students alike. Some of the most modern concepts of teaching, media, or technique like teaching machines, programmed instruction, team teaching, individualized instruction which were mentioned in the educational plans, were never introduced or are unknown to an average teacher in the country except in one or two cities.

Administration and Control of Teacher Education

An analysis and assessment of the administration and control of teacher education is necessary in order to understand the place it occupies in the whole educational structure. It will be beyond the scope of this study to describe in detail the whole educational structure and how it is administered and organized. However, organizational charts of the Federal Ministry of Education, Provincial Ministry of Education, Regional Directorate, and the place secondary school teacher training colleges occupy in such a structure are given in Figures 1 and 2.

Teacher education is handled by the Central Ministry of Education, Provincial Education Departments, and their Directorates of Education. The institutions for primary teacher training are controlled and administered by an Inspector of Training Institutions under the overall direction and supervision of the Regional Directors of Education. The teachers' colleges are controlled directly by the Regional Directors.

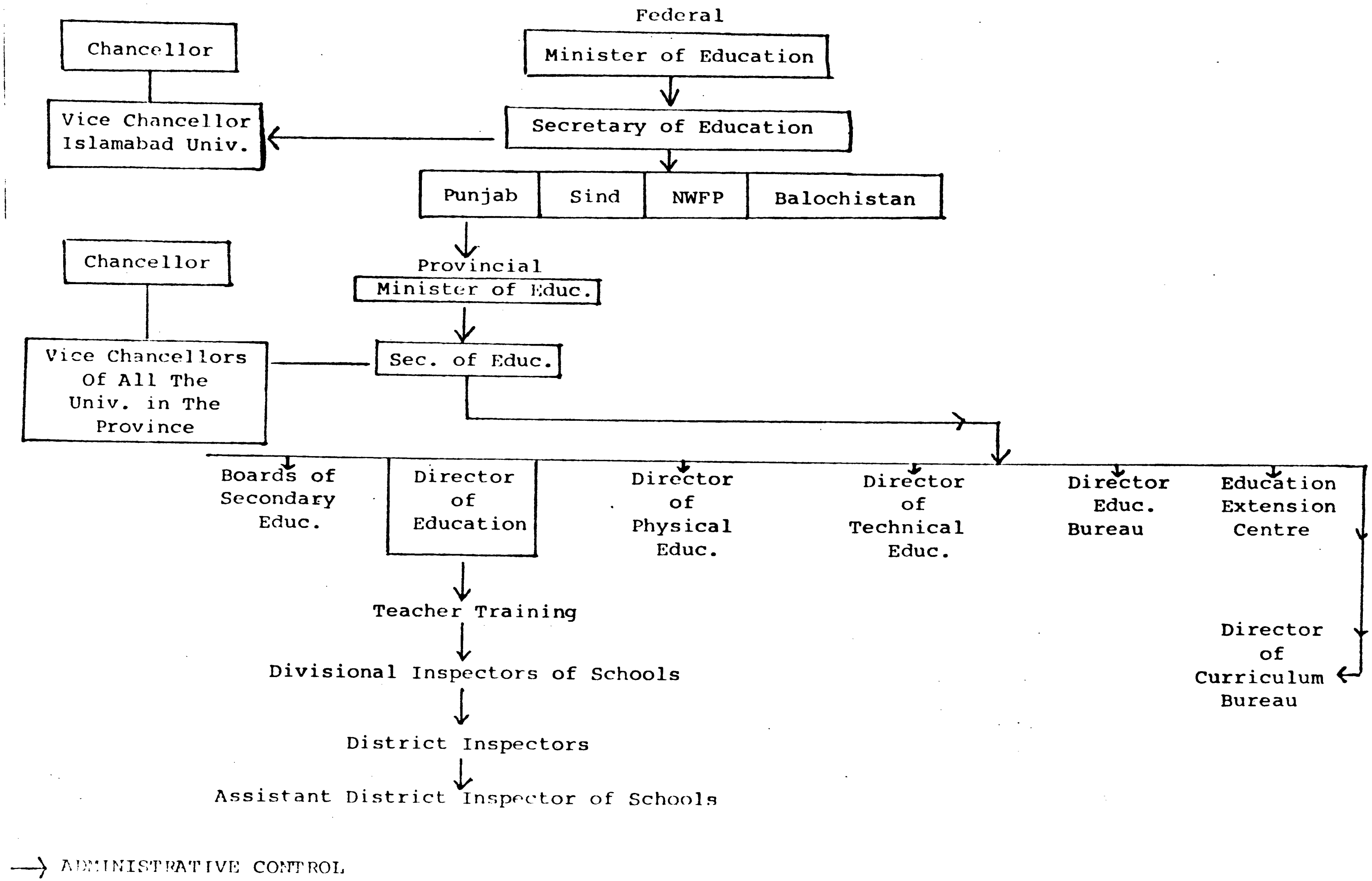

Fig. 1--General organizational chart of education in Pakistan

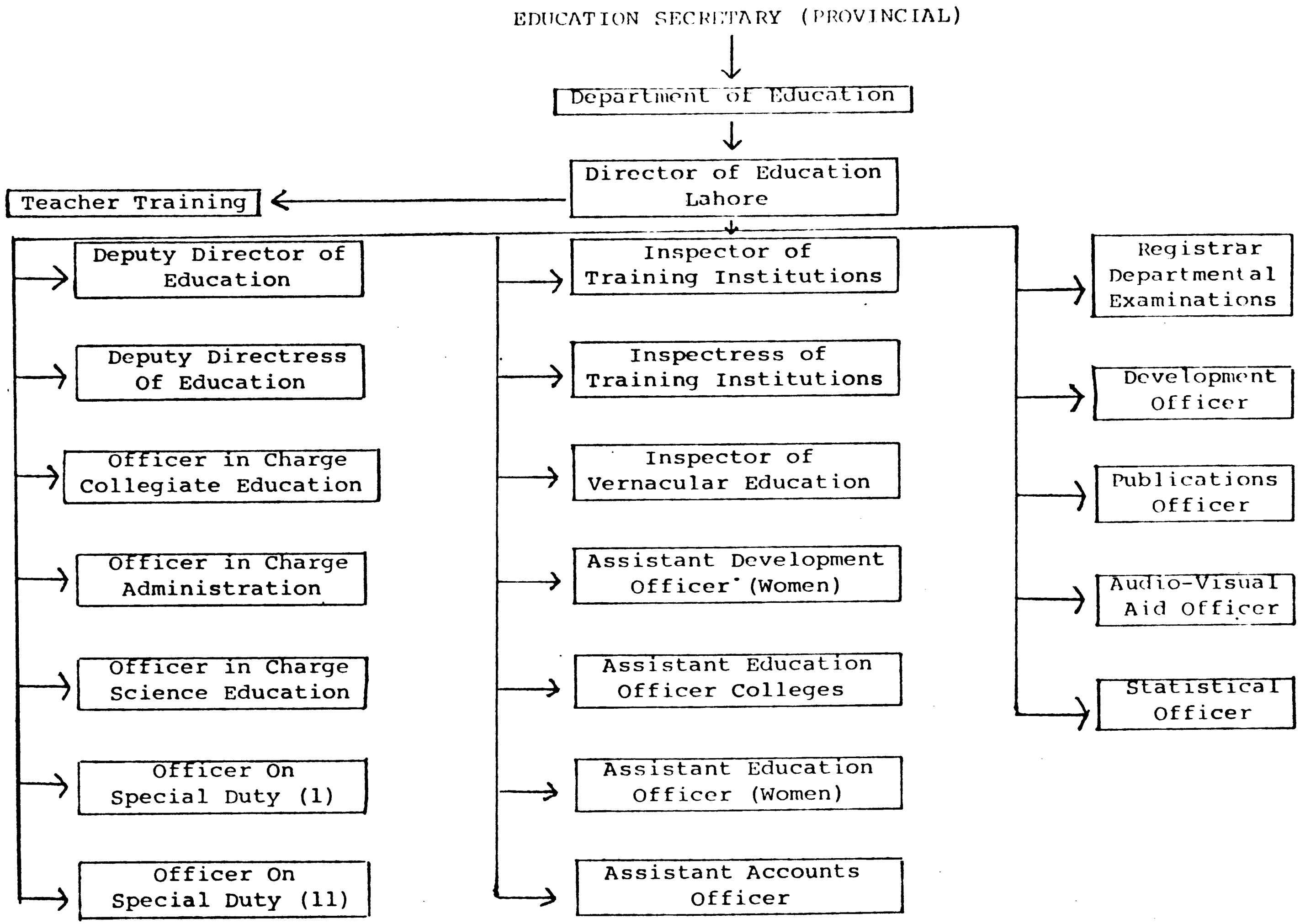

Fig. 2--Organization chart of a Regional Directorate

The directors of the Education Extension Centers for the inservice education of teachers work under the control of the Regional Directors of Education. The heads of the Institutes of Education and Research are directors who work under the universities of which they are a part.

The institutions for secondary teacher training are managed and financed by the government except for university departments, which as constituents of universities are autonomous institutions, and which receive grants from the government.

The duration of training, the number of years of schooling preceding it, and the certificate or degree awarded for primary and secondary teacher training are summarized in Table X.

In addition to the regular training programs, there are certain programs which are designed for specific purposes. Education Extension Centers offer short training courses of various durations ranging from two to eight weeks for secondary school personnel. They also arrange courses of one academic year's duration for teachers of agriculture, industrial arts, and commercial subjects. The Refresher Course Training Centers offer short courses of inservice training of two months duration to primary school teachers. The Institute of Education and Research in Lahore offers courses leading to post-graduate and research degrees: M.A. (Ed.), M.Ed., and Ph.D. The other Institute of Education and Research at Hyderabad also offers courses leading to T.D., B.Ed., M.Ed.,

TABLE X

DURATION OF TRAINING

Type of Teacher Training Program	Previous Schooling			Length of Time in the Teacher Training Institutions	Certificate, Diploma or Degree Awarded
	Primary	Secondary	University B.A. B.Sc.		
Primary teacher training	5	5	. .	1 year 2 years	Cert. of Education Primary Teacher Cert.
Secondary teacher training	5	7	2	1 year	Bachelor of Education
Primary and secondary					
a) Primary teacher training	5	7	. .	1 year	Cert. in Teaching
b) Secondary teacher training	5	7	2	2 years	Bachelor of Education

and Ed.D. The duration of the M.Ed. (or M.A. in Education) courses is one year after completing the B.Ed. course. The Agriculture University offers courses leading to post-graduate B.Ed. (Agriculture) and M.Ed. (Agriculture). For B.Ed. one year after B.Sc. in Agriculture or a related discipline and for M.Ed., two years after B.Sc. or one year after M.Sc. are required.

Admission and Enrollment

For the primary teacher training program, students are admitted on the basis of a pass in the secondary school certificate examination. Credit is given for service as an untrained teacher, distinction in the field of sports and games and other co-curricular interests, in addition to scholastic activities. A certificate of good character from the institution last attended is valued. An interview is held to assess general knowledge, knowledge of school subjects, personality, character, academic career, age, and health. Admission tests are given in some institutions to assess general knowledge, knowledge of school subjects, and aptitude for teaching. A physical and medical examination is arranged. A certain percentage of admission is allocated for teachers' sons, ex-servicemen, backward communities, and minorities. For the secondary teacher training program, a B.A. or B.Sc. is a prerequisite. The prescribed age limits are strictly followed.

Evaluative Process in the Educational System

The success or failure of Pakistani students is determined by their ability to pass successfully the qualifying examinations administered by external examining agencies. The Board of Education administers examinations for students in secondary school; a separate department of examination administers examinations for students in higher education. These agencies prepare examination papers in the various subject disciplines by utilizing the input of teachers in that discipline. The examinations consist predominately of essay questions and usually require about three hours for each of the seven to ten individual subject examinations required for a certificate, diploma, or degree.

Since answers to questions on qualifying examinations are reproduced out of crammed memory and do not require logic, problem solving, inquiry, initiative, or evaluation but simply test the student's ability to recall the content of the subject, the conclusion might be drawn that they tend to defeat the very purpose of modern education and educational values. As one might surmise, they dominate the whole teaching-learning process and thereby the examination. This system, furthermore, has grown to be so important that it might be said to direct, control, and shape the whole structure of Pakistani society. It is not unthinkable to attribute much of Pakistan's backwardness to the examination system. Much of the turmoil caused every year in the country at the hands of the youth may be due to anxieties caused by these examinations.

It is true that attempts have been made to change the pattern of examinations since Pakistani independence but with no tangible result; on the contrary, their conventional purposes are the same: "to guard the gates that lead from elementary education to secondary and from secondary to university /as well as to/ professional and business careers" (22, p. 118). This comment was made by the British chairman of the Indian Education Commission in 1927. In 1950, the first education minister of independent Pakistan, Fazlur Rahman, said:

> True education breaks the bonds of selfishness, false opinion and conceit; it makes a man the true servant of God and his fellow human beings. When education forgets its real purpose, it becomes a lust for knowledge for the sake of pride and self-conceit. The last stage of the degradation of education consists in the desire to pass useless and meaningless examinations which place a false evaluation on the new and creates an illusion of learning and scholarship. Our education has sunk to this last stage and hence the supreme importance and vital need for clear definition of our educational principles and ideology (29, pp. 55-56).

He emphasized strongly the urgent need to treat secondary education as a complete, self-sufficient, purposive stage in education. High school education was considered only as a stepping stone to admission to university education during the British period. There was no consideration of job-oriented or technical-vocational education which might be terminal in the educational continuum. Speaking further about the examinations, he said:

> Examinations have been the bane and curse of education, not only in this but in more advanced countries . . . Universities and governments judge the efficiency of a school by looking at the number of passes from it, and teachers are thus forced to shift the emphasis from education to success in university examinations, and it is taken for granted that all students who pass out of schools must necessarily enter universities. The most surprising and lamentable feature of our school education is that when students pass the nightmare of examination, universities complain that their standard of attainment is so low that they are not fit to take up higher studies, so they are required to spend another year or two in preliminary studies before taking up higher studies. Is it possible to conceive of a more tragic way of wasting the precious time of our young students! (29, p. 61).

Rahman noted that examinations must be so devised that they should be true tests of a student's mental capacity and intellectual development, and should help to develop his mind rather than choke and retard it. He questioned the utility of periodical examinations which, in his opinion, were obstacles in the way of the development of students, who look upon them with dread and anxiety and try to pass them by fair means or foul, frequently the latter. Parents in most cases share the attitude of their children and want them to pass examinations at any costs. Rahman indicated that his division had reports of cases in which educated parents had begged, threatened, or cajoled heads of schools to give a few more marks to their children and thus declare that they had passed school examinations. He gave stress to the fact that a young man or woman does not become educated merely by certification (29, pp. 61-62).

Strongly critical statements relating to the examination system came a decade later when the Commission on National

Education (1959) alluded to this system as "notorious shortcoming" of examinations and suggested radical changes in the system by recommending

1. Bimonthly tests in schools.

2. Maintenance of student's entire school record, tests, general behavior, and performance in the class.

3. Objective and comprehensive assessment of the student's work done through the school year for further promotion in the next class.

4. External examination for high school and higher secondary classes at the end of classes X and XII.

5. A weight of 75 percent on the performance of the external examinations and 25 percent on the school record (10, pp. 122-125).

The suggestions from the commission were corrective and were intended to change the educational system, but the results were disappointing. Rahman's statements made twenty-five years ago are still true. The Commission on Student Problems and Welfare (1966) confessed that "even this system (i.e., the one suggested in 1959 by the Commission on National Education) has, from what we have been uniformly told, completely failed to achieve its purpose. Evidence shows that this power has been widely abused both by teachers as well as educational institutions" (13, p. 102). The commission further remarked that "if this power had been fairly exercised it would have largely restored the respect and dignity that the teacher unhappily no longer enjoys" (13, p. 102).

The commission found that honest students and teachers both favored the American semester and credit system in the elementary and secondary schools as well as in higher institutions. The commission also realized the importance of examinations, if they were utilized as real tests of intelligence and knowledge and not as indicators of the cramming capacity of the student.

The New Educational Policy of 1969 proposed that in order to solve the defective evaluative technique, "the present system should be supplemented by objective tests, personality evaluation, and progress reports from the institution where the student has carried on studies (16, p. 44). It also proposed to abolish divisions and classes since it believed that many corrupt practices would be wiped out by such action.

The last development on the education scene, the Educational Policy of 1972-80, has unanimously expressed the fact that "there is no system of observing, recording and evaluating the performance, behavior and aptitude of the pupil throughout the year" (18, p. 31). The policy has suggested the maintenance of cumulative records of each student in order to make "continuous, scientifically graded assessment of the student's achievement, general behavior and aptitude" (18, p. 31).

What is needed is an evaluative system which will overcome the problems of the past, a system which will ultimately change the teaching process. Recognition of the basic shortcomings present is the first step in planning the needed changes.

These shortcomings are

1. Final examinations are the "yardstick" of a student's ability and achievement.

2. Classroom teaching does not encourage problem-solving, inquiry, and initiative among the students because success, not learning, is the major goal.

3. There is a lack of provision of a psychological approach that would lessen students' dread and fear of examination.

4. A student's performance in the classroom, his assignment, and behavior get no recognition.

5. There are no concerted efforts to bring about changes in the attitudes of students and parents regarding the importance of learning.

6. Experimentation, research, and review of the evaluative procedures are lacking.

7. There is an absence of any advanced planning for the details of examination and fixing of dates.

8. Student-teacher involvement in the educational task is not expanding.

9. Examination departments and boards of education perform an unproductive function and cause an unnecessary drain on public money.

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CHAPTER IV

A PROPOSED STRATEGY FOR SECONDARY SCHOOL TEACHER PREPARATION

Introduction

The need to develop an appropriate educational system is crucial, however one views the relationship of human resources and national development. Planners who put a nation's human resources to the best possible use for the common benefit are responsible for the development of an educational system that can transform human potential into human productivity--a productivity that supplies momentum to a society's economic, social, political, and humanitarian life.

The teacher in such an educational system performs a significant two-fold function--to perpetuate society's heritage and simultaneously to energize human resources for social progress (29, p. v). If it is accepted that the teacher is a central element in the formal education of a nation's human capital and that the level of education cannot rise far above the quality of the classroom teacher, then teacher selection and preparation are real social concerns. Producing the best teachers that a nation can afford requires concerted effort. Countries are underdeveloped whenever most of their people are undeveloped (29, p. 3).

Teacher education provides a vital link between a nation's institutions of higher learning and the people they are designed to serve. Even the most affluent societies cannot afford higher education for all of their youth, even though colleges and universities may be supported by the public at large. The benefits of higher education for the majority of the population must therefore be transmitted by the teacher, who is a product of this higher education. The institutions that educate teachers, the teacher educators themselves, and the government departments of education concerned with teacher training are therefore clearly part of the overall strategy in a nation's developmental process.

If educational development is vital to social, economic, and political development, it follows that both teacher quantity and quality are vital to educational development (29, p. 3). Teachers are the "sole pivot" of educational and community development; they are to education and economic development as machines are to plant and production. In discussing innovation in education, Combs drew attention to the central role of teacher preparation in these words:

> Educational systems will not be modernized until the whole system of teacher training is drastically overhauled, stimulated by pedagogical research, made intellectually richer and more challenging and extended far beyond preservice training into a system for continuous professional renewal and career development for all teachers (8, pp. 164-165).

Bruner's observations are pertinent in this connection; he said that there is no single problem in the field of educational assistance more important than teacher education. He added that it is "the single form of activity that has a known multiplier effect built into it" (4, p. 94). B. O. Smith wrote in Teachers for the Real World that there are many crucial attributes of the emerging world which must be reflected in the preparation of teachers. The key word in education must be relevance, a willingness to look at the critical issues of the present. Smith placed the responsibility for accomplishing this on the teacher training institutions (37, p. 2).

For cultural relevance, national ideology and teacher training must be high priority issues. Unless every aspect of teacher training is carefully reviewed, the changes initiated in teacher preparation as a result of current crises and demand in Pakistan will be like many changes which have gone before, "merely differences which make no difference."

An inspection of teacher education programs in Pakistan reveals that they have never been allowed to take the lead in developing the educational system and in helping establish priorities in social, economic, and educational change. In practice, teacher education has hitherto been dealt with only in an ex post facto manner. It seems to be confined within an educational system that suffers from inertia and reluctance toward change. The notion that teacher education does not make any significant contribution to the prosperity of the educational enterprise prevailed until recent times. The present government, however, is making sustained efforts to reform and reorganize educational systems and teacher education programs. The National Committee on Elementary Teacher Education of June, 1974, confessed that the impression one forms is that the present teacher education system in Pakistan is using outmoded materials and methods. Children are being entrusted to teachers whose general education as well as professional training levels leave much to be desired (17, p. 3).

The same report observed that the New Education Policy of 1972-80 envisaged a major shift to scientific, technical, and vocational fields which in turn called for radical change in the theory and practice of teacher education toward more dynamic training procedures (17, p. 3).

Much of what is wrong stems directly from the divorce between what to teach and how to teach, the sharp division between the academic content and professional training. As Leon D. Epstein expressed it, most liberal arts professors have never been interested in systematic methods of teaching; they doubt whether methods are reducible to a science (26, pp. 214-215).

In Pakistan, the spectrum of general courses in higher education is narrow and uncoordinated. The professional teacher training courses are taught as preparation for passing the university examination. They have no practical applicability to the teaching-learning situation. Consequently, the courses give the prospective teacher no insight, initiative, or drive.

Since the proposed program is based on research and reforms in teacher preparation in certain developed countries, such as Communist China, Russia, Britain, and the United States, a description of their teacher preparation precedes the proposal presentation.

Professional Preparation of Teachers in Communist China

China has the world's largest population, approximately nine hundred million. The society is largely agrarian, with at least 80 percent of its people living in rural areas. Before 1949, 70 to 80 percent of the population was illiterate due to some of the obsolete social conditions. The Confucian ideology fostered class distinction and maintained a separation between mental and manual labor. This plagued the whole Chinese society before communism swayed the whole country.

Communism, in the new China, has completely changed the whole social, economic, and political structure. The society is dedicated to comprehensive revolutionary transformation. The major innovations that have occurred under Mao Tse-tung's leadership have been accomplished through mass mobilization and campaign politics as opposed to normal government channels and have been accompanied by a denigration of professionalism and expertise (12, p. xxviii).

Since the Cultural Revolution in 1966, decentralization of administration and reduction in the number of bureaucrats has been effected. The most powerful unifying factor today is not bureaucratic control but ideology--the thought of Mao Tse-tung.

Educational Background

The educational theory and practice of a society is one of the best indicators of its values and future direction. For the past several years China has placed extraordinary emphasis on the transformation of its educational system to transform its society.

The long-term goal of Marxism in China is to realize an egalitarian society--a classless society in which the economic, social, and political fruits of human endeavor are distributed on the basis of approximate equality. The socialistic ideal of equality (12, p. xviii) differs fundamentally from the liberal ideal of equal opportunity to reach the top. Distinction of top and bottom in regard to privilege (as distinct from talent or achievement) is eliminated in a fully socialistic society (12, p. xviii). To achieve the universal socialist objectives, educational measures currently employed in China are shaped by the historical and immediate needs of China.

Communist China inherited a selective system, aiming eventually to be universal, led by experts to train experts at the higher levels. Its ethos were liberal, academic, and scholastic, and its products were in the main isolated from the life of the ordinary people, and had a *deep dislike of getting their hands dirty* (31, p. 27).

The Communists brought with them a different conception of education. The aims were limited, practical, and as closely related to ordinary life and the needs of the moment as possible. As an example, the aims of the University of Yan-an are described as featuring education combined with production with the aim of cultivating the students' constructive spirit, their habit of labor, and their labor viewpoint. The foundation of teaching in this school is self-study and collective mutual help. Teachers and students join in study to secure an interpretation of book learning and practical experience. At the same time, democracy in teaching is developed in order to encourage the spirit of class discussion. The object is to cultivate the ability of independent thought and criticism (12, p. 79).

Teachers made their greatest contribution to the common people in response to Mao's teachings of ideological remolding through self-education. They studied the new theory, examining the new method and new education. They learned to seek the truth, to correct errors by mutual and self criticism. This movement brought a new life to the teachers and revived their respect and dignity (12, p. 81).

Objective of Chinese Education

The aim of education in China has always been moral-political, and the school is a strong medium to transform manners and customs of the people. Galt wrote:

> The moral-political nature of teaching in China is brought out in the description of the duties of the minister of instruction. He prepared the Six Rites to restrain the nature of the people; he made clear the Seven Teachings in order to stimulate the virtue of the people; he arranged the Eight Regulations of Government in order to maintain order among the people; he unified doctrines of morality in order to secure common customs (31, p. 59).

The importance attached to moral-political training is seen in the fact that subjects such as "character formation for youth" and "common knowledge of politics" are included in the teacher training schools (31, p. 59).

The teacher training schools and colleges run "short courses" to raise the academic level of teachers. The duration of courses varies from a few weeks to one or two years. In 1952, the Ministry of Education asked for a regular and orderly system of spare-time study to raise the quality of teachers (6, p. 28).

Special correspondence courses to train teachers have been established. They are operated by the senior teachers' training schools as well as by separate institutions. Such courses run for four to five years, six to eight hours a week. The aim of teacher education in China is education of the people. The government directed teachers' colleges to pay special attention to political study among teachers, reforming the intellectuals to reorganize the teaching materials to bring them into line with "the standpoint, the viewpoint, and the method of Marxism" and to integrate what they were learning from the Soviet Union with the actual conditions in China (6, p. 15).

China has a system of full-time teacher training schools and colleges linked with a system of full-time schools. The senior teacher training schools (normal schools) take in graduates from the junior high schools and train them for three years. These trainees can then teach in all six grades of the primary school. Some senior teachers' training schools have a kindergarten section. At the third level of education, there are three types of institutions: the teachers' training institute (higher normal university), the teacher training college (higher normal colleges), and teacher training (junior) college (higher professional normal school). The first two offer four-year courses to graduates of senior high schools and prepare them for teaching in all six grades of secondary school. The institutes are a broader, more elaborate type of training institution. The teacher training colleges take graduates from the senior high schools, but train them for only two years before returning them as teachers for the junior high schools (31, p. 29).

Curriculum and Teaching Techniques

The curriculum of the institutes consists of academic subjects, moral-political training, productive work, education, and practice teaching. Specific subjects include Chinese language and literature, Mathematics, Physics, Chemistry and Biology, History and Geography, Music, and Drawing.

Students at the college level specialize in a smaller number of related subjects. Colleges are divided into departments (6, p. 17). The education courses in the teacher training schools include special lectures in education, psychology, and subject-method lectures in language and literature, arithmetic, and sometimes in other subjects.

Student teaching for Chinese teachers is provided in special primary schools designed for that purpose. Since 1958, students have helped to establish schools in communes and factories. This requirement helped students gain experience which made "the practice teaching part of the teacher training curriculum . . . necessary" (6, p. 16).

Teaching by example is one of the methods which Chinese educators have always stressed. Discussion and study were not considered as effective as observation and emulation of each other's goodness (6, p. 16).

Practical skills are taught by industrial and agricultural workers beyond the confines of school walls, in factories and on farms, as well as in the classroom. Even history and social science are sometimes studied in the community. By making education a concern of the whole community, the former teacher shortage in China has been somewhat alleviated. The professional teachers are still very much needed, and are still the most important source of instruction.

Professional Preparation of Teachers in the Union of Soviet Socialist Republic

The Soviet Union has achieved spectacular advancements in science and technology through their system of education.

In a relatively short span of time, it has almost eradicated the illiteracy and poverty which had existed for centuries (44, p. 133).

The U.S.S.R. has successfully achieved a national education system with a general compulsory eight-year education that has now become universal secondary education. Vocational-technical schools, specialized secondary schools, and higher educational institutions form the nucleus of the Russian educational system.

Background

Teachers in the Soviet Union are greatly respected for their responsibilities in educating the younger generation. The esteem given to teachers can be seen in Lenin's writings:

> We should place our teachers on a level which they have never reached before and which they would never be able to reach in a middle-class society. This is a truth which requires no proof. We must achieve this end by systematic, constant, and persistent efforts directed towards: the teacher's spiritual progress, his overall training for his truly noble profession and, most important of all, his material well-being (22, pp. 365-366).

The Soviet government and the Communist Party regard teacher training as a matter of great national importance. Teaching is one of their most honorable and esteemed professions (44, p. 136).

Soviet state policy is based on Soviet educational theory, the science of the communist education of the rising generation. The fundamental questions related to education are clearly defined in this theory. The teachers, therefore, work with definite views on important aspects of education and teaching.

Objectives of Education and Teacher Preparation

The teacher in the Soviet Union is an ideological educator responsible for developing among young people a scientific, social, political, and civic outlook (44, p. 137). The teacher training program is not, therefore, restricted to professional training and specialization but includes only acquisition of broad philosophical and socio-political outlooks.

Teacher education in the Soviet Union is provided in teacher training schools, teacher training institutes, universities, and specialized higher educational institutions--conservatories, art institutes, foreign language institutes, and physical culture institutes.

Teacher training schools provide a four-year course for pre-primary and primary school teachers with eight-year education, and a two-year course to those who have secondary education. Since 1958, training institutes have also added faculties for the training institutes and a completely new type of higher educational establishment, created after the October Socialist Revolution (44, pp. 140-141).

The aim of teacher training institutes is to train highly qualified teachers for all grades of secondary schools--grades five through ten. These teachers receive a thorough theoretical knowledge of the subjects to be taught along with practical training in teaching methods. The theoretical training of teachers at the training institutes covers socio-philosophical, special, and educational subjects. The socio-philosophical course includes such subjects as the history of the Communist Party, political economy, philosophy, and scientific communism (44, pp. 140-141).

The specialized training of teachers is central in the work of teacher training institutes. Thorough knowledge of the fundamental principles of different subjects such as mathematics, physics, and biology is a basic requirement for the subject specialists. To remain knowledgable about these subjects and the latest developments taking place through research every day, the teachers work hard and read extensively (33, pp. 114-115).

Teacher Curriculum and Teaching Techniques

The curriculum for the training of Russian secondary school teachers consists of general psychology, educational psychology, and other educational courses. The requirements for general and educational psychology are familiarity with the main trends of psychology, physiological principles, personality development, and the discovery of the principles of directing the education of children of various ages. Teacher-students are trained in methods used for the study of children and in psychological analysis of the teaching and education process (33, p. 115).

The education courses for pre-service teachers provide a broad educational outlook, orienting the teacher with current educational problems and their solutions. The first part of each education course is devoted to general problems in the field; these are development and education, the aims and tasks of education, physical, mental, vocational, moral, and aesthetic education, and general polytechnic and professional education.

The second part consists of studying the nature of the teaching process, the principles of teaching, the content, forms, and methods of teaching, and fundamentals of programmed education. There is study of student development and of independent and creative roles in the teaching process.

The third part of the educational course concerns the nature and principles of education, organization and training of students, out-of-school activities, and education at home. Classroom lectures and theoretical teaching are supported by student observations during practical school experience. Students observe and analyze lessons taught by teachers; they confer with class superintendents and with Senior Young Pioneer leaders. Groups of students visit other schools to observe instructional methods (44, p. 143).

Educational seminars are arranged in which students present papers on various educational problems and propose their own solutions based on their involvement, interest, and experiences in daily life. In such seminars, various educational aids are introduced, such as programmed textbooks and teaching machines (44, p. 144).

The teacher training institutes with large faculties have departments of methodology which carry out educational research coordinated with departments of educational theory and psychology. Students work at schools during the first two years of studies, serving as assistant class superintendents on a voluntary basis. They work with students in many ways, even including extracurricular activities. Practical work is done during the summer period at the Young Pioneer Camps with students acting as teachers and leaders (33, pp. 113-114).

The last two years of studies for student teaching are organized at schools under the guidance of methodologists, teacher educators, and specialists. Students acquire experience teaching in their area of specialization serving as class superintendents and as organizers of out-of-school educational activities. No guidance is given at the final stages of the practical courses (44, p. 145).

The universities in Russia also provide programs for secondary school teacher training, but work with only 15-20 percent of the total number of Russian teachers. The universities train only specialists for scientific research and teaching activities (44, p. 146).

Professional Preparation of Teachers in Britain

Professional preparation of teachers in Britain is done through "general colleges" that provide training for all types of primary and secondary school work. Subjects such as housecrafts, physical education, and art have their own specialist colleges. Most university graduates receive their training in university departments of education. The most recent reforms in British teacher education have been the establishing of institutes of education and the bringing of training colleges into organic relationships with the universities. This contact with universities has brought strength to the training colleges and provided a new stimulus to their curriculum and student life. The general recognition of the responsibility of the universities for teacher training has resulted also in the development of university departments of education (1, pp. 513-520).

Objectives of Education and Teacher Preparation

The whole British approach to teacher preparation is very different from that which made the training college of the past a rigid and oppressive institution. No longer is the prospective teacher equipped with just enough knowledge to enable him to teach the elements of the usual school subjects; now his general education is extended by opportunities to pursue one or more subjects of the student's choice to as high a level as possible. Thus a female teacher, if she so wishes, may opt to devote a substantial part of her time to history, although her intention is to become an infant school teacher. Similarly, a male teacher preparing for junior school work may choose

French as his special subject, although modern languages have no part in the junior school curriculum. In preparation for secondary school teaching, a student elects to study a subject which will be his main teaching specialty. What is important is that whatever special subject is adopted, it is studied largely for its own sake, not just in relation to its potential later use. This aspect of teacher education in Britain is distinctive and important. It derives from the view that study in depth of a chosen specialty is the surest means of forming a cultivated mind. Moreover, the new general acceptance of this view is an expression of the determination of those concerned with teacher preparation that "training," in the narrow sense of the term, must give way to the broader conception of "education" for the teaching profession (23, p. 27).

There is an increasing tendency for teachers with training college backgrounds to go to graduate school to earn a master's or a doctoral degree in education. The certificates which the college-trained student and the university-trained student receive at the end of their courses from their institute of education make no stipulation as to the type of school they may enter nor the subject or subjects which they may teach. The university department of education trains graduates as teachers, but these departments have hitherto been little concerned with primary school work (32, p. 25).

Curriculum and Teaching Techniques

The program provided by the university departments of education lasts for one academic year (actually for nine months, from October to June) and is devoted entirely to professional studies; all who enter it have completed three years of intensive study in the subjects which they intend to teach. Three elements predominate: (1) studies in the philosophy, psychology, and history of education conceived in more academic terms than in the training colleges; (2) study of the methods of teaching the subjects in which the student has specialized during his university degree course; and (3) practice teaching which usually takes the form of two or three short periods at different points in the course, although in some cases it consists of a "block" period extending over the whole of one of the three terms which go to make up a university year (1, pp. 102-110).

The basic feature of the professional studies in training colleges is that they are closely related to the experience of the students, and not excessively theoretical. Thus, although the doctrines of the great educators are seriously studied and acquaintance made with the main findings of psychological research, the student is encouraged, under skilled supervision, to make his own studies of individual children and of children in groups. Theory guides his explorations, serving merely as a remote body of knowledge to be assimilated apart from practical experience (32, pp. 39-40).

The basic courses in British training colleges now extend over three years. Their purpose is fourfold; they provide (1) opportunities for each student to deepen his or her personal education through the intensive study of one, or sometimes two, special disciplines; (2) general training in the basic subjects of the primary and secondary school curricula and especially in English and basic mathematics, with courses in religious knowledge generally available; (3) professional education, studies in the principles of education, the psychology of childhood, health education, and the historical and social aspects of education; and (4) practical training in the form of supervised teaching practice in schools, supported by courses in teaching methods. These elements are included in all courses in varying proportions, whether they are designed for students preparing for work in infant schools (age range of 5-7 years), junior schools (age range of 7-11 years), or secondary schools (age range of 11-15 years and beyond) (32, pp. 78-80).

Teaching practice involves full-time attendance at schools for short periods of from three to four weeks and covers about twelve weeks in all. At first the student spends some time watching experienced teachers at work, but this "observation" is soon interspersed with actual teaching periods, during which he gives lessons within the framework of the syllabus being followed in the school. Toward the end of his course, and especially in his last practice period, he is likely to have responsibility for planning and carrying through a connected program of work (1, pp. 480-483).

There is no rigid division between lecturers in the training colleges who deal with "subjects" such as English, history, mathematics, and art and those who are concerned with "pedagogy." The lecturer in mathematics does not normally give lectures in his subject and then leave its treatment in the schools to a "Master of Method." On the contrary, he is concerned with both content and method at all levels, and follows up his work in the schools where his students carry out their practice teaching. It is in this way that he joins forces with his colleagues in the fields of education and psychology (24, p. 96).

Teacher Preparation in the United States

Teacher preparation in the United States has been susceptible to profound change by the wider intellectual and social developments, as is true in some degrees in other countries. Some of the external influences such as the post-Sputnik demand for change in school curriculum, knowledge explosion in all fields, and growth in behavioral sciences have greater share in shaping teacher education than the theory of teaching and teaching technology (44, p. 156).

Background

Until the beginning of the twentieth century, preparation of elementary school teachers was confined to separate normal schools. These normal schools, however, became four-year teachers' colleges and these gradually became general purpose collegiate institutions. More and more departments and schools of education were introduced into established colleges and universities. Teacher preparation in exclusive training institutions was gradually discontinued but the rift between liberal and professional educators grew steadily wider.

During the post-Sputnik era, criticism of American public education and of educationists responsible for teacher preparation became more pronounced. It was demanded of the educationists to recognize that the primary purpose of schools should be the cognitive development of students and the primary emphasis in teacher education the development of sound scholarship in the teaching field (44, p. 157). Greater emphasis upon the teaching of science and mathematics, continuous and intensive study of foreign languages, and creation of a school of intellectual training was reiterated again and again.

The "academic civil war" soon ended, and the hostility between the liberals and the professionals changed into frank recognition that all levels of educational enterprise require overhauling to meet new social conditions and new social needs (44, p. 160). Cooperative ventures in curriculum revision have been undertaken, particularly in the fields of science, mathematics, English, and social studies. At the graduate level, a relatively new but widely adopted fifth-year program leading to the Master of Arts in Teaching degree program has been introduced in the university centers.

A similar cooperation has also developed in programs at the undergraduate level. The departments and schools of education have given way to councils or committees on teacher education composed of representatives of the substantive fields as well as methods of teaching. They collaborate to develop policy and curricula and advise students.

There is generally increased commitment to intellectual development as the primary aim of formal schooling. The study of education, it is now realized, develops the same intellectual values and the same commitment to research and inquiry which have long characterized serious work in the arts and sciences. Pedagogy, for example, is no longer viewed as mere pontification about conventional teaching practices. The history of education, once discarded by historians as naive propaganda about the sanctity of the common school, is now considered a rich and significant aspect of social and intellectual history (44, p. 161).

The initial preparation of teachers now is conventionally conceived as consisting of three parts: general education, specialized studies in the discipline or disciplines to be taught, and professional training for teaching. Teacher education in the United States is not an isolated activity, but physically and psychologically an integral part of higher education (44, p. 162).

There is markedly increased reliance upon the academic disciplines in the preparation of teachers. All of the national programs of curricular reforms rely upon the greater organizing principles which have been developed historically in the various academic disciplines. Jerome Bruner is the most articulate and familiar spokesman. He wrote:

> Knowledge is a model we construct to give meaning and structure to regularities in experience. The organizing ideas of any body of knowledge are inventions for rendering experience economical and connected. We invent concepts such as force in physics, the bond in chemistry, motives in psychology, style in literature as means to the end of comprehension. . . . The structure of knowledge--its connectedness and its derivations that make one idea follow another--is the proper emphasis in education (44, p. 162).

Academic reliance in teacher education is also manifest from the fact that there is no more dichotomy between "professionally minded" and "academically minded" teachers who are interested in research and inquiry. The institutions now expect prospective school teachers to develop an academic major as well as sufficient knowledge in the liberal arts to handle the diverse subjects taught in the schools.

The spectacular growth of the behavioral sciences, such as economics, political science, psychology, social psychology, sociology, and anthropology, have also profoundly influenced teacher education in the United States. Generally, scholars from these fields have been attracted to faculties of education and greatly contribute to the preparation of teachers (44, p. 164).

Student Teaching

Every state, through its constitution, has final responsibility for and authority to prescribe the broad principles of both financing and control of its public school system. Over the years, state legislatures have delegated measures of this responsibility and authority to state departments of education. In earlier years, this responsibility was relegated to the "normal school" or college; there was very little formal working relationship between the normal schools, the public schools, and the state departments. State responsibility for student teaching was first proposed by Haskew, and later by Wiggins, Conant, Andres, and others (2, pp. 169-171).

Since 1965, several major developments have had an impact upon the student teaching program as a part of the overall teacher preparation curriculum in American colleges and universities. The American Association of Teachers Colleges in 1968 published a report which identified basic issues in professional laboratory experiences and suggested certain principles to which the profession could react. This publication marked the beginning of a sharper focus of attention on student teaching and a more intellectual treatment of it in professional literature.

The National Commission on Teacher Education and Professional Standards (NCTEPS) has been concerned with attracting students of higher quality into teacher education with the quality student teaching programs and with student teaching responsibilities. A recent development which has an impact upon the preparation of teachers is the Elementary and Secondary Education Act of 1965 (federal government as a major source of financial support in education). Early student teaching, known as "practice teaching," placed undue emphasis upon teaching methodology. As a matter of fact, practice teaching is only one important aspect of the whole student teaching program; it is inferred as a laboratory experience (11, p. 31).

The purpose of student teaching has been quite institutional until recently. The broader purpose may be "to provide a planned, carefully supervised learning activity for the student teacher which allows him to demonstrate and to improve his resourcefulness as a teacher in a real school setting." This implies that students are not placed; they are not turned over completely to a supervising teacher who may have reluctantly agreed to work in the program. The whole purpose requires a thoughtful, well organized, and well coordinated approach to student teaching.

The essence of learning activities is assisting the student teacher to understand how and why his behavior in the classroom causes certain pupil responses. This also allows him to see, to know, and to think about his behavior as a teacher and to assess the degree to which his behavior has created a learning environment for pupils. Student teaching is truly a learning experience to the degree that the student teacher can be assisted in understanding his behavior and its subsequent relationship to pupil growth and development. It is a challenge to act on the basis of what has been learned and an extension of the opportunity to learn in a more real and more complex setting than has been experienced before (11, pp. 57-59).

Purpose also provides direction. The dynamic environment of society and the school today has initiated numerous developments in the student teaching programs. The American school has moved from a program advocating imitation of a master teacher toward a program encouraging one to identify, use, and test his own teaching resourcefulness. It has moved from an emphasis on one lesson plan for all toward emphasis on lesson planning for the needs, interests, and abilities of each pupil. Rigid "success or failure" assessment of student teaching has been replaced by "good but need to be better," "why not try this again?", or "are you really satisfied?" assessment. The degree of institutional commitment to the purpose of student teaching sets priorities, characterizes the program, provides resources, and establishes standards (11, pp. 69-70).

Educational Technology and Teaching Techniques

While the growth of educational technology had started in the second decade of this century, their broadscale application to education was not envisaged until recently. The main purpose, it is claimed, is to free the teacher of the aversive routine of his craft. He will be able to assign to machines the burden of dispensing information, of supervising drill activities, of evaluating informal learning, and of providing diagnostic cues about individual difficulties. Many innovative programs are being undertaken in the schools of the country. For example, the team approach is employed at Michigan State University through a new educational agency, the School Clinic, where scholars, educators, school personnel, and community representatives pool their efforts to create new programs such as micro-teaching, simulation, and individualization of instruction (43, p. 158).

In recent years, a new movement, competency-based teacher education, has gained attention among educators. This program is criteria-referenced: criteria and objectives for training are made explicit and prospective teachers are held accountable for meeting them.

Growth in the teacher educator's concern with affective as well as cognitive development of prospective teachers has resulted in "Education of the Self," one of the most popular electives at the University of Massachusetts (2, p. 345). The objective is to produce a fully human teacher. A person who meets the human criteria of warmth and of human understanding is also capable of rigorous thinking and is in control of his own behavior (2, p. 346).

The increased use of videotaped micro-teaching in conjunction with techniques such as Flander's Interaction Analysis have made the analysis of teaching behavior a reality. Private industry has become involved in teacher education; among industrial contributors are Science Research Association, General

Learning Corporation, and the Westinghouse Learning Corporation. To some degree, current evidence of educational industrial revolution may be found in schools and teacher preparatory institutions throughout the nation. Language laboratories, replete with all manner of feedback devices, operate in thousands of schools. Almost all schools have tape recorders, overhead projectors, transparencies, television receivers, and cameras. In a handful of schools, computers are in daily use in important areas of the curriculum.

Conclusion

The preceding study of teacher preparation in Communist China, Russia, Britain, and the United States provided ample information and rich feedback for developing a new program for secondary school teachers in Pakistan. The salient features, though with great diversities in each one of them, are that teacher education has been greatly influenced by the external socio-economic and political changes in and outside the world. These programs are not run in isolation but form an integral part of higher education. Another factor of importance is the elementary and secondary teacher preparation which is arranged jointly in one and the same institution. The period of preparation extends an average of four years. Pedagogy is no longer viewed as mere pontification about conventional teaching practice. The study of behavioral sciences greatly provides numerous means of analyzing learning and teaching in the classroom because of their direct relevance to the study of education. Increased reliance on academic disciplines assures more and more discovery of new knowledge. This helps creation of special abilities in the prospective teachers who prepare for teaching.

The Proposed Program for Pakistan

Objectives to be Achieved

The objective of this study is to develop a new program of secondary school teacher education in Pakistan. This program should give each teacher (1) better understanding of current social, economic, and technological changes; (2) broad-based "general education," knowledge stemming from the interrelatedness of such disciplines as psychology, sociology, anthropology, mathematical analysis, statistics, and environmental science; (3) development of the ability, initiative, skill, and intuition to communicate and apply knowledge in practical situations; (4) skills in class management that produce an environment conducive to learning; (5) understanding of the psychological and pedagogical problems of puberty and adolescence and of the social adaptation of youth in time of rapid change; and (6) professional growth and commitment to professional ethics.

Additionally, the proposed new program should result in (1) balance and compromise between the content and methodology of teaching; (2) objective observation and experimentation in teaching and learning experiences for future improvement; (3) application of learning theories under conditions which include rigorous analysis of teaching and learning; (4) a continuum of pre-service and in-service teacher education for teaching improvement; (5) provision of laboratory conditions in schools to test innovative curricula and teaching techniques; (6) changes in the organizational and administrative structure of the schools and the teacher-training institutions; (7) new modes of instruction that more actively involve students in the learning process and make school learning more relevant to real life; (8) application of research to resolve educational problems; and (9) development of evaluative procedures for assessment of learning in schools and teacher-training institutions.

An Overview of the Proposed Program for Pakistan

The proposed program for secondary school teachers in Pakistan is a four-year course divided into two self-contained blocks of two years each. This program will be open to students after high school graduation. The first two-year block may be terminal and, as such, would serve to alleviate the country's teacher shortage. Alternatively, this first two years would be the prerequisite for those wishing to acquire the additional two years of professional training. The second block could also be entered directly by those students already possessing a degree. It would provide comprehensive professional knowledge, competency in methods of teaching, and specialization in one or more major fields of interest.

This program would offer four-year concurrent courses for secondary level teaching to higher secondary school students with ten years of schooling or two years of concurrent courses to those with fourteen years of schooling. This is consistent with the trend toward lengthening the period required for teacher training (40, p. 23). Countries which do not follow the concurrent course allow for only one year of professional preparation; this produces an inadequate number of knowledgeable teachers. The general trend of patterns now in operation is noted in the fact that fourteen out of seventeen Asian countries now follow concurrent courses in teacher training (39, pp. 18-19).

Under this proposed plan, teacher training institutions would either provide offerings of general education or seek the cooperation of liberal arts teachers to teach those subjects. The institutions of general education would be encouraged to provide more offerings of general education to prospective students of professional education. The general tendency is increasingly toward concurrent professional training and general education, creating a closer relationship between academic and professional teacher training and providing a longer period for professional orientation (39, p. 18).

The program would have certain requirements for entry in the teacher preparation program. Only those students with average scores of 50 percent or above in high school (or higher secondary school) examinations would be considered for teacher training. Teaching aptitude would be assessed by a state-wide or region-wide test consisting of both objective and essay questions. The development of such a test would be the responsibility of the research department in the institute or college of education, perhaps together with two or three teacher training institutions.

Such a program would prepare teachers for a range of subjects appropriate to their interests and talents, in contrast to the present overwhelming requirement of subjects and responsibilities. It would develop strong careers for teachers in various disciplines of interest through inquiry training and interpersonal behavior development. The proposed program would provide prospective teachers combined theory and practical school experiences with formal course work in the university. This would require increasing cooperation between schools of education and school systems.

The Phased Program

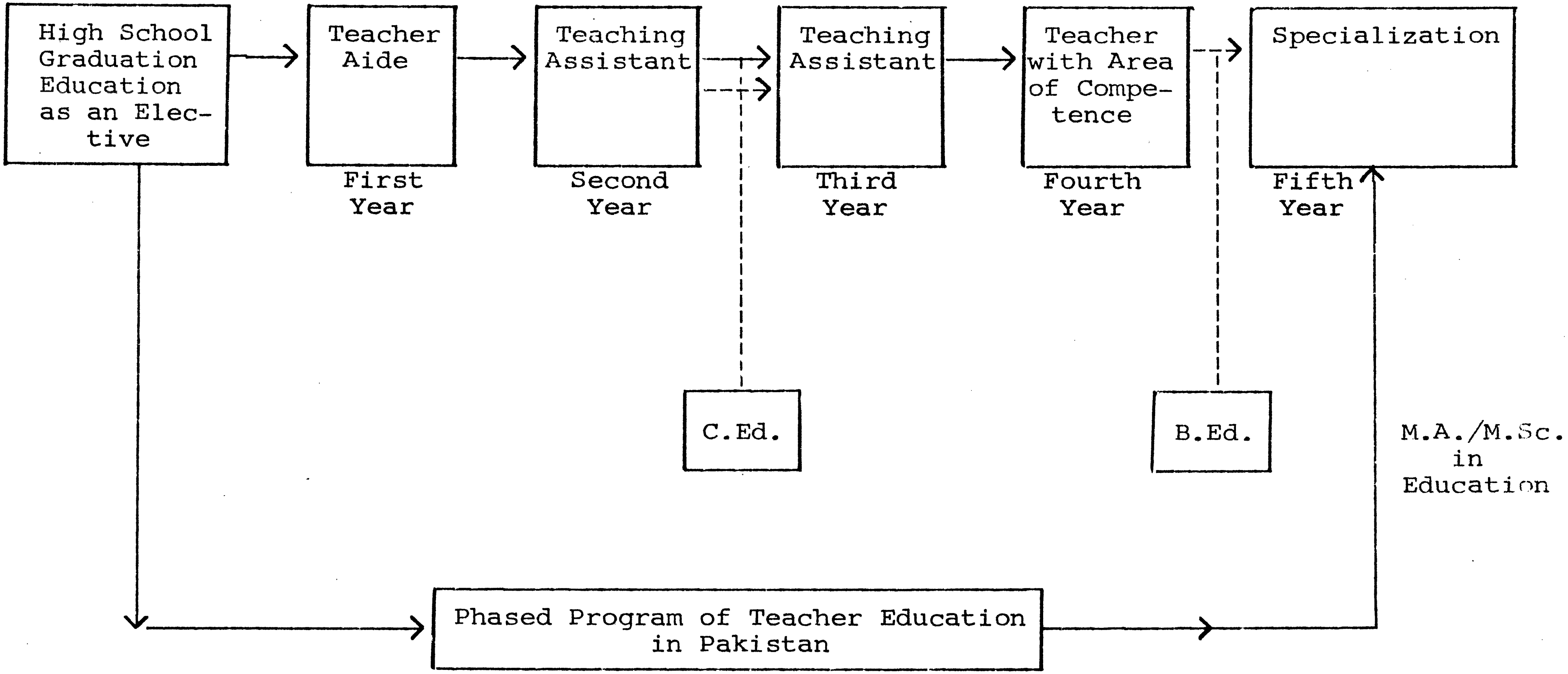
The phased program is presented as a system to prepare secondary school teachers in Pakistan, a replacement for the traditional program. The program is based on the premise that the prospective teacher should experience the whole program in phases of distinct, identifiable training stages.

Analysis of the phased program would reveal a teacher preparation categorized into four levels or phases: teacher aide, teacher assistant, intern/teacher, and teacher with area of competency.

Because of the ever increasing need for trained teachers in Pakistan, admission procedures related to multi-entry points are provided in the program. The route to secondary teacher training in Pakistan has traditionally been immediately after the bachelor's degree or higher secondary school graduation. The proposal here is that a student could enter teaching as an aide directly from high school graduation, with education as an elective. The noninstructional duties of the aide make this a reasonable possibility. The student could attend college on a part-time basis while gaining classroom experience. This would also enable the student to determine early in his college career if he should continue in the education profession.

The entire program consists of two self-contained blocks of two years each. The student would serve as teacher aide in the first semester and as observer in the second semester. He would spend the first half of the second year as a teaching assistant and the remaining half as student teacher. Qualifying for a certificate in education (C. Ed.) at the end of the second year, he could then be employed as a teacher.

The plan allows for continuation through the second block or entry by any new non-education major who has completed junior college with education as an elective. The student completing all four years would be entitled to a



Continued Education
Re-entry
C.Ed.--Certificate in Education
B.Ed.--Bachelor of Education

Fig. 3--Phased program of teacher education in Pakistan

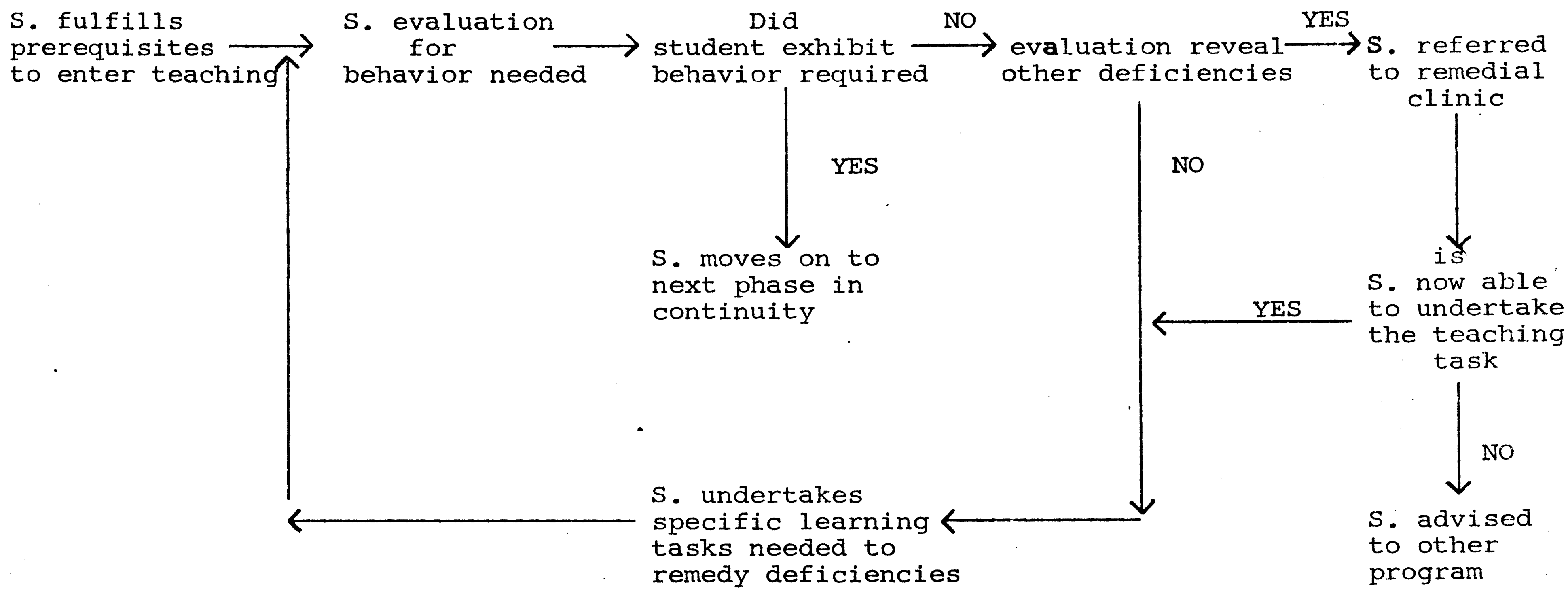
Bachelor's Degree in Education. A second entry option could serve two desirable purposes: it could give the student a broader and deeper experimental background for the teaching profession, and it could attract more interest in the teaching field. The phase program of teacher preparation is shown in Figure 3.

Evaluation of Student's Progress in the Program

Before a student is allowed to make entry into the program, he would be evaluated to determine his aptitude for the teaching profession. After entry, he would be re-evaluated periodically to assess his regular progress. Satisfactory assessment would allow him to move to the next level. These assessments would be similar to the National Teacher Examination. If deficiencies were detected, arrangements would be made for clinical assistance or for transfer to other programs. Figure 4 illustrates student progress procedures.

Activities in the Phased Program

In the first half of the first year, the aide would perform non-instructional tasks under the direction of an experienced teacher. The primary element would be experience in daily classroom activities. The second half of the first year would offer opportunities to begin observing teaching activities of classroom teachers and of other teacher aides.



S--Student

Fig. 4--Flow chart of procedure for use of phased program of teacher education

In the second level of the first block, that of teaching assistant, the student would perform both instructional and non-instructional duties, a more complex role; he would spend half of his time as teaching assistant. In the second half, he would engage in student teaching experiences. In the first level of the second block the student serves as teaching assistant; in the second level he teaches in his area of competence.

General Education

Any profession rests heavily on a body of systematized knowledge organized in terms of distinctive practical problems. As a professional field of study, teaching has distinctive practical problems and resources to deal with these problems. Such problems arise out of the need to formulate and justify teaching and learning strategies. Knowledge about these problems is of two major types: general and specialized. General courses, including social sciences, language, mathematics, natural science, and fine arts, would be at the introductory and survey level. These foundational studies would be an essential part of the proposed program.

Academic Specialty

Specialized courses would be advanced and intensive investigations in the student's chosen discipline. Usually the pre-service teacher would select two areas of academic specialization.

Professional Education

The proposed curriculum for professional preparation of secondary school teachers consists of the following courses.

Adolescent Psychology.--This course would acquaint the teacher with an analysis of the physical, emotional, intellectual, and social development of all adolescents, with particular study of the adolescent in Pakistan. Embodying the adolescent's relationship within the family, school, and community, this course would enable graduates to nurture in adolescents the behaviors needed to solve their problems and those of society.

Learning Theories and their Application to Teaching.--This course would provide knowledge of learning, its nature, process, conditions, and measurement. Particular reference would be made to the significance of this study for the organization and techniques of education, thus providing for systematic translation of theory into practice.

Secondary School Curriculum.--This course would consist of three sections. The history and development of Indo-Pakistan secondary schools is a basic element. Also included would be a study of the goals and objectives of secondary school education in Pakistan, its organizational structure and functional role in the total school system. A third important component of the secondary school curriculum would be orientation to current educational problems.

Strategies of Teaching and Teaching Technology.--This course would offer knowledge of the various strategies and tactics in classroom instruction and familiarity with innovative programs in developmental and experimentation stages. Students would be acquainted with the use and operation of modern teaching equipment. The creative role of the teacher in the teaching process would be examined and developed.

Student Teaching.--The various phases of the laboratory teaching experience would be experienced in this course. The student would be equipped with knowledge of various tactics of teaching and classroom management.

History and Philosophy of Education.--This course would present the historical development of education in Muslim society, making general reference to developments in Western societies. Also included would be study of the educational views of great thinkers.

In addition to the above courses, one of the following courses would be required for specialization: (1) School Administration, (2) Guidance and Counseling, (3) Measurement and Evaluation, or (4) Teaching Technology.

Student Teaching in the Proposed Program

The potential experiences of student teaching are seldom fully realized, although their value probably equals that of all other education courses together. Conant and Koerner agree that student teaching is a necessary element in a good teacher education program (11, p. 18). One way to release the potential of student teaching is to consider the various facets of practical performance it involves and the way these performances are accomplished. Student teaching experiences are planned to allow the student to study the teaching act in a setting in which he is a teaching participant. The entire experience is focused on the student teacher; his role is special.

To achieve better teaching performance, a series of preparatory functions must be planned for the prospective teacher. These may be described as observation of the classroom operation, planning for the experiences to be gained in the classroom, and participation in the teaching activity with individuals and groups of students in the classroom. Ultimately, the student teacher assumes the whole responsibility of classroom teaching.

Most of the professional educators believe that student teaching experience should come early in the curriculum; it could thus serve to help the student decide whether or not he really wants to be a teacher. Early teaching experience would motivate him and direct his subsequent study (11, p. 18). This was the major idea underlying the program suggested for Pakistan in which the prospective teacher would be exposed to teaching immediately after higher secondary school graduation (junior college). Student teaching would be preceded by observing the teaching operation in the classroom under the supervision of a professional teacher.

Objectives of Student Teaching

The proposed program of teacher preparation will help achieve certain major objectives. These objectives are an acquaintance with the major activities of a classroom teacher; skill in performing the activities of a classroom teacher in at least one area of specialization; familiarity with the school's curriculum, administrative policies, and facilities; awareness of the issues and implications involved in a teacher's job; and a self-understanding in the potential teacher (44, p. 63).

Proposed Organizational Structure for Student Teaching

It may well be that student teaching is the single most important experience in teacher education in terms of influencing the classroom behavior of future teachers (2, p. 104). Such an important experience has received virtually no practical attention by the training institutions in Pakistan, serving as merely an adjunct to the teacher education program. While it should be a cooperative endeavor of the Provincial (State) Department of Education, the schools, and the training institutions, it is primarily the training institutions which take responsibility for student teaching. The participating schools now consider this operation merely a favor to the training institutions and thus have no organizational structure with underlying goal or purpose.

Provincial (State) involvement is necessary; it should be a cooperative endeavor of the training institutions, the public schools, and the Provincial Department of Education. The joint endeavor and involvement will develop a program for student teaching and will achieve quality and efficiency in teaching. Figure 5 shows the proposed organizational structure for student teaching.

It is proposed that the Provincial (State) Department of Education, through legislative mandate, take the responsibility for supervisory control over student teaching. Education of teachers both at the elementary and secondary levels would be under the general direction and control of the Provincial Department of Education. This department, through each regional director, director of the institute of education, and head of the education department in the universities, would have supervisory control over teaching preparation, including student teaching in public schools.

The Department of Education should work for adopting a law that carefully defines the responsibilities of the various agencies for student teaching. This law would recognize student teaching as a joint responsibility of all the agencies involved. Additional provisions would include the employment of public school teachers selected as supervising teachers, remuneration for supervising student teachers in addition to

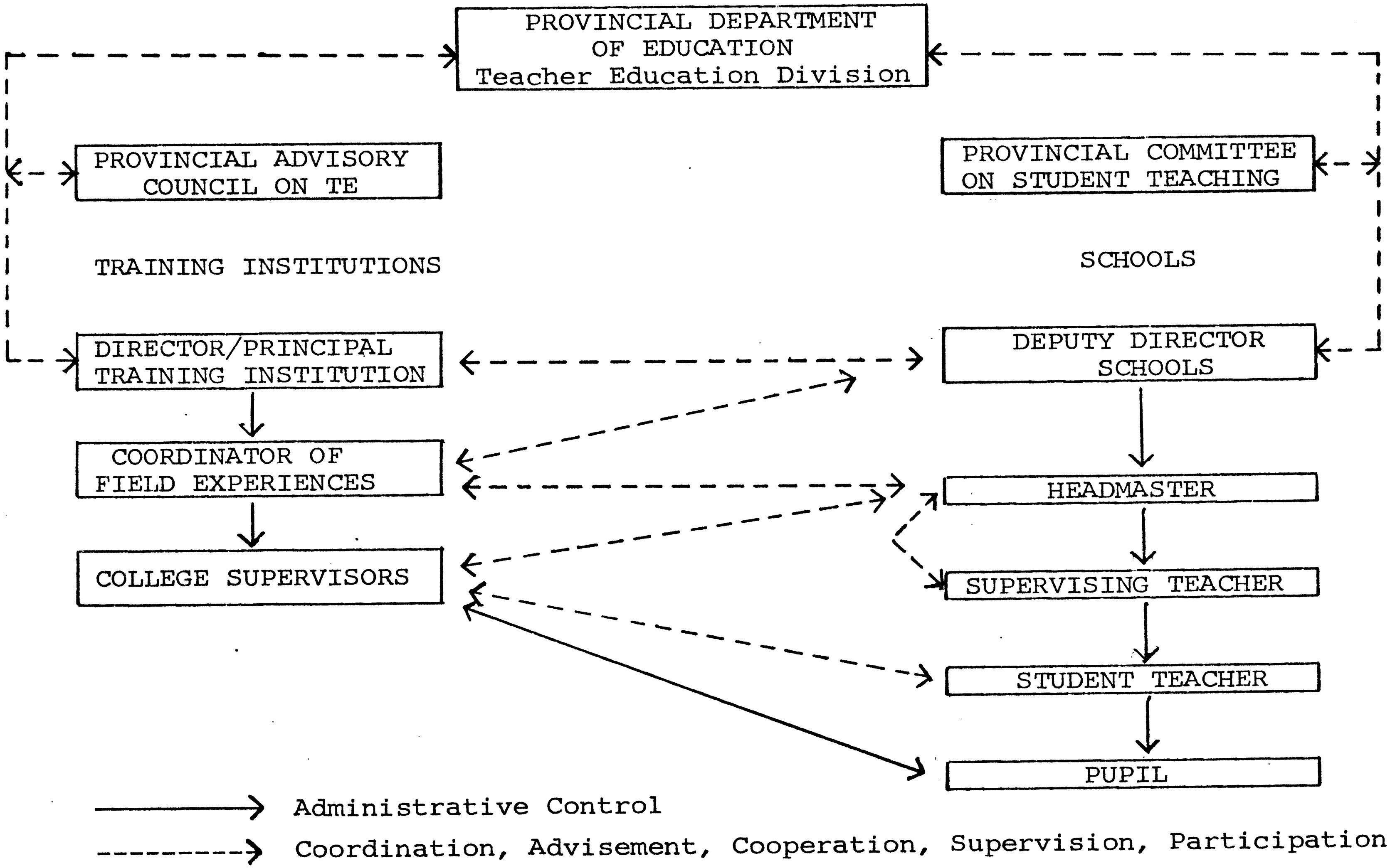


Fig. 5--Proposed organizational structure for student teaching

the teacher's regular salary, and minimum standards guaranteeing adequate facilities and programs in public schools selected for student teaching.

Advisory Council

An Advisory Council for Teacher Education is proposed to advise the Provincial Department of Education on teacher education, student teaching, recommended improvement, arrangements for periodic seminars for student teaching, and development of evaluative instruments to be used in pre-service and in-service programs. Such a council would consist of one represenitive from the Department of Education, Teacher Education Division, one representative from each of the training institutions, and two or three members named jointly from all the participating schools in the student teaching program. One member would be from the ranks of the well-known educators in the Province.

Committee on Student Teaching

The committee on student teaching would be responsible for coordinating the Provincial Department of Education and the Advisory Council on Teacher Education. This committee would make periodic evaluation of student teaching programs and encourage experimentation in innovative programs. The same committee would assist the training institutions in solving their problems and organize cooperative endeavors to improve student teaching.

The Committee on Student Teaching would consist of one representative from the Provincial Department of Education, heads of all training institutions, coordinators of field experiences, one representative from the college supervisory staff, and two to three supervising teachers elected from participating schools.

Head of the Training Institution

The head of a training institution would be a director of an institute of education, a head of an education department in a university, or a principal in a training college. He would have responsibility for the student teaching program, selecting and assigning college supervisors and supervising teachers, and conferring with, screening, and placing student teacher applicants.

Coordinator of Field Experiences

The coordinator of field experiences would represent both the training institutions and the public schools. His responsibilities would include counseling with individual student teachers, maintaining liaison with the deputy director of schools and the headmasters, and other supervisory responsibilities.

College Supervisor

Under the proposed plan for reorganizing teacher education in Pakistan, the college supervisor would be placed under the administrative control of the coordinator of field experiences and would maintain close liaison with the heads of the public schools and their supervising teachers. The supervisor would counsel with the student teachers concerning personal and professional problems and assist the student teacher as needed. He would conduct seminars for the student teachers to facilitate interchange of ideas and participate in continuous evaluation of the student teaching program.

Supervision of the student teaching program contributes to its efficiency and success. Usually a college coordinator supervises a number of students in several schools. At a more specialized level, special subject supervisors visit and supervise those student teachers in their area of specialization to improve supervisory activity and provide a kind of check and balance; team supervision is practiced.

The Supervising Teacher

The supervising teacher would be expected to give direction to student teaching and serve as a model of successful teaching. He would introduce the student teacher to the teaching process and become thoroughly acquainted with him as a person and as a prospective teacher. He would work with him as a professional colleague and help him in planning and evaluation. In cooperation with the training institutions he would constantly strive to improve student teacher performance.

Student Teacher

The image of a student teacher, the sum total of his dress, mannerisms, and general approach to classroom operations affect the effectiveness of his teaching. The speech of the student teacher, its volume, projection, fluctuation, grammar, and vocabulary are important factors in teaching success. The student teacher must possess or cultivate an appropriate temperament for directing the learning environment. Finally, his instructional planning must show thoughtful preparation, creative use of available resources, and appropriateness. These considerations provide a needed expansion of the traditional view of teachers in Pakistan.

Procedures for Student Teaching

The training institutions would be responsible for upgrading teacher preparation. Essential in this procedure would be careful selection of candidates for teacher education. The following areas need consideration to achieve the optimum in the selection process.

Screening procedures.--Prior to admission to student teaching, it must be affirmed that the student teacher has knowledge and skills in the following areas, as described earlier: general preparation; subject matter to be taught; human growth, development, and behavior; instructional materials; instructional techniques; nature of the student teaching program; and responsibilities and obligations of student teachers, including professional ethics.

The following screening criteria are proposed: psychological stability, appropriate academic strength, adequate physical condition, satisfactory social adjustment. After the screening committee is satisfied, each candidate would be informed about his admission to the student teaching program and provided with a guide book for student teachers developed by his training institution. Details of the assignment would be furnished to the student and to the college supervisor and school principal.

Counseling techniques.--Faculty members from the training institutions counsel the prospective student concerning his professional goals, abilities, and special talents.

Public school involvement.--Public schools would be involved in the selection procedures for student teachers. This could be accomplished by using a committee composed of teachers and administrators from these schools.

Selection of student teaching centers and supervising teachers.--Cooperation among school administrators would facilitate the identification of good centers and efficient supervising teachers. It is proposed that the college administrator, student teaching coordinator, and the school administrator work together in selecting student teaching centers and supervisors. Selected teachers would be informed about their responsibility to the student teacher, to the participating school, and to the training institution.

The Student Teaching Experience

Student teaching would be scheduled during the second year of the teacher education program, the final year of the whole program in the first block in Figure 1. The same experience is proposed for students who join the second block and enroll for the third and fourth years of the program. This would not be required for those who had this experience in the first block and are continuing the four-year program.

The student teacher under the new program would be required to spend much of his time observing other teachers in classroom processes. Passive observation, however, might after a time become dull and uninteresting. The student teacher might begin to consider this as a traditional requirement. To obtain maximum benefit from an observation, one must prepare for it and afterward reflect on it.

For best results, a group of two or three students should observe the same class and discuss their observations with each other. At the same time of the discussion, the presence of a senior teacher, preferably a supervisor shared by the students, should make the experience more beneficial.

It is explicitly recognized that the senior teacher can contribute to the development of the prospective teacher by encouraging the student to study the apparent effects of different styles, strategies, and techniques observed in other teachers. He should be required to help the student relate classroom activities to ideas, concepts, and principles encountered in his professional courses.

Evaluation

Proposed evaluation of the student teacher's professional growth would be continuous rather than an end-of-course rating for success or failure. The college supervisor, the supervising teacher, and the student teacher would hold regularly scheduled evaluation meetings. The criteria and methods of evaluation would be mutually acceptable to teacher education institutions and the public schools; these criteria would be clear, concise, and practical. The official appraisal should contain the report of the college supervisor and the supervising teacher with the college supervisor assigning the final score on a scale of one hundred.

In the present study, information has been presented relating to the selected aspects of reorganization of the present secondary school teacher-education program in Pakistan. Major components of the study have been limited to objectives, professional and academic curriculum, teaching methods, and technology. The detailed content and courses of professional and academic disciplines should be relevant to students' needs and interests, qualification and employment conditions of professional personnel, evaluative procedures, and allocation of finances. Financial allocation to support the educational program should be outlined in successive studies. The present study provides a conceptual framework for the additional elements that must be explored.

Proposed Teaching Techniques and Technology

Recently a variety of instructional procedures have been implemented in some schools in the developed countries. Among the approaches utilized by teachers to facilitate students' learning are the inquiry and discovery methods, individually prescribed instruction, programmed instruction, problem solving methods, team teaching, and independent study. In some instances the newer approaches have resulted in an ultimate increase in the students' learning efficiency and in their motivation to learn (16, p. 188).

Skillful teachers are needed in order to plan, implement, and evaluate instructional strategies effectively. The proposed model would provide opportunities for pre-service and in-service teachers to develop understanding of learning theories upon which varied strategies are based, as well as to gain proficiency in assessing students' needs and designing appropriate instruction. This model is designed to help teachers become flexible, competent, creative professional educators who possess instructional expertise and knowledge in academic areas (37, p. 188).

Teaching-learning methods in developed countries have been influenced by the use of instructional media as well as the innovative methods named. Media are well integrated into the curricular designs of many current school programs. Although educational television and radio are successfully combined with other teaching techniques in some developed countries, extensive use of these media is premature in Pakistan. Widespread communication of knowledge through television will be possible only after a large number of schools and colleges are equipped to receive the telecasts. At the present time, many of the schools and colleges in rural areas lack electricity (15, pp. 209-210; 16, p. 168).

The Education Policy of 1972-80 provided for the distribution of 150,000 radios and 100,000 television sets to schools and continuing education centers by 1980 (40, p. 9). This commendable goal should be delayed until the teacher training institutions are able to graduate teachers who are adequately prepared to use appropriate and varied teaching methods and technology. The allocation of available resources into programs that will expedite the improvement in the professional training of teachers should take precedence over massive technological investments.

Programmed Instruction

Programmed instruction together with teacher machines help develop student problem solving abilities. Programmed instruction supplements other teaching methods and may itself be supplemented by library work, projects, term papers, personal consultation, and laboratory exercises.

The philosophy of programmed instruction is similar to that of the monitorial system practiced in the early nineteenth century Indo-Pakistan subcontinent. The idea of this system was taken by Dr. A. Bell to England where it developed into the highly efficient Lancastrian Monitorial System, later adopted in America as an important means of basic literacy training (34, p. 66).

A feasibility study of programmed instruction was initiated by the U.S. Government Agency for International Development (US-AID) in Pakistan in 1970 (34, pp. 65-67). Some research on the feasibility of such a program in teaching mathematics and sciences has been carried out in the Institute of Education and Research at Lahore and College of Education at Peshawar, but the outcome has been limited in scope and area. The proposed teacher program requires all training institutions to experiment, introduce, and implement programmed instruction. Programmed instruction will go a long way in solving learning problems in Pakistani schools.

Team Teaching

Another proposed instructional technique is team teaching, a method that provides opportunities for professional growth and teaching efficiency. Team teaching in the proposed model will serve to utilize better the talents and interests of teachers, increase grouping and scheduling flexibility, and improve the quality of instruction.

Team teaching promotes cooperative planning of curriculum and instructional methods and joint evaluation of instruction by the entire team. While it will require long hours of planning, it will widen avenues of responsibility, coordination, and cooperation; these are areas of real need in Pakistani secondary education (30, pp. 38-40).

Microteaching

Microteaching can be of real value both to experienced teachers and to trainees and interns in the proposed program; its purpose is to change teachers' professional self-perception and to give training in specific teaching skills. Its relatively high cost yields proportionately faster effects than does that of any other modern technology in Pakistan. The costs may be met locally through groups of schools and training institutions which pool resources and use equipment on a cooperative basis.

The proposed introduction of microteaching will benefit Pakistan's schools in several ways. It will give practical, firsthand teaching experience to trainees; it will function as an inservice training tool for experienced teachers; and it will be a valuable research technique for exploring training effects under controlled conditions. Rapid improvement in the teaching process will result from the proposed use of microteaching in Pakistan.

Other Techniques and Tools

Other teaching techniques are recommended for the new program. The new teacher should begin a classroom resource library. Reference has been made that 99 percent of Pakistani teachers use only the lecture and textbook method. The classroom library should include supplementary material appropriate for all pupils. A coordinated effort of the Central Ministry of Education and provincial ministries can supply resources for such libraries. The institutes of education and research, education extension centers, Central Bureau of Curriculum, Provincial Curriculum Centers, and the boards of education should establish learning resource cells whose function would be to provide supplementary materials.

Private and professional organizations of education may also be encouraged to participate in such a task. Brief descriptions of some desirable resources are given below.

Paperbacks.--The use of paperbacks as textbook supplements has proved successful in the schools of the United States (39, pp. 42-45). Paperbacks can give Pakistani teachers and students positive reading experiences and broadened knowledge.

Newspapers.--Newspapers are an inexpensive and available source of teaching materials, particularly for classes in social studies and language. Critical thinking and maturity of thought can be developed through newspaper reading. The ability to skim and scan and to locate information is readily taught with newspapers. These reading skills are basic to meeting Pakistani educational needs.

Overhead projectors.--The use of overhead projectors in all Pakistani educational and training institutions will create much needed variety and interest. The overhead projector, one of the most useful products of modern educational technology, is rapidly becoming one of the most commonplace educational aids in developed countries and should be a significant component of techniques in the proposed model (19, pp. 675-677).

Flannel boards.--The flannel board would be a useful and versatile adjunct to the popular chalkboard in Pakistan. This inexpensive, easily prepared device has been used successfully in advertising and in sales. American teachers have long used it with success (18, pp. 420-424). Flannel boards are important aids in teaching business education, chemistry, driver training, language, industrial arts, social studies, and many other subjects.

Recordings.--The record player and the tape recorder are other inexpensive teaching devices. Good reproduction equipment and good selection of tapes and records are essential for well equipped teaching institutions. They can be used in all subjects, particularly in languages and social studies. The addition of earphones or sound booths adapts these aids for individualized instruction. The use of tape recorders and record players is within the financial resources of even the rural schools in Pakistan. Their use reinforces learning, supplements reading, and increases the listening comprehension of the students. The best use of tape recorders may be a means of making radio programs available to students. Entire radio program series may be recorded and reproduced for the benefit of the students (27, pp. 234-239).

Each of the aids described above can meet deficiencies in the present Pakistani educational system. Each one has a potential for creating heightened interest and improved learning.

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CHAPTER V

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Findings

1. The tracing of educational development and teacher education in the historical perspective reveals that Pakistan had a seven-hundred-year-old educational heritage, more advanced than contemporary Europe (2, p. 101).

Education and learning as such have never been alien in the Indo-Pakistan subcontinent. Muslim educational institutions were open to all and provided educational opportunities to the humblest citizen (9, p. 29). Muslim leaders were personally and practically involved in learning and experimentation. They were authors of several books and autobiographies and preferred to appoint educated individuals to high governmental posts (3, p. 581).

Because the promotion of learning and knowledge was regarded as an act of worship in Islam, learned people, rich persons, and government officials acted as teachers or opened their houses to be used as instructional sites (9, p. 22). Patrons of learning of that era accepted the fact that education should be flexible, dynamic, and adaptable to changing times. While the teaching of scientific subjects was emphasized, the aspects of broad humanism from the study of history, geography, and languages of other nations were considered equally important for the teachers.

An examination of documents of this period did not reveal evidences of the existence of modern concepts of teacher education. Nonetheless, programs included emphasis on the development of quicker methods of teaching and procedures for making learning more practical, intellectual, and understandable to the pupils. Children were aided in solving their own problems while the teachers acted as guides. These were the basic components of good teacher education programs.

Education with a vocational background was the primary aim which motivated the Muslim leaders in establishing educational institutions. The Muslim educators utilized psychological approaches to teaching and learning. They individualized instruction, observed pupil behavior, and involved pupils in problem solving. The aim of education was to encourage intelligent and virtuous behavior derived from the religious teachings which modified behavior and helped in the formation of character.

The main objective of the British in establishing an educational system in the subcontinent was to replace the centuries-old education and culture with their own. The replacement was made in the name of European scientific advancement. The system of education designed by the British was aptly described by a European writer, Howell, in these words:

> Education in India under the British government was first ignored, then violently and successfully opposed, then conducted on a system now universally admitted to be erroneous, and finally placed on its present footing (10, pp. 364-393).

So long as the British held the political power in the subcontinent, almost all educational controversies had a political bias. The utterances of Macaulay and other British officials in the subcontinent amply reflect the depth of hatred and contempt they bore in their hearts against the indigenous education and culture.

The educational history of the country reveals that the imperialistic nature of the British power prevented the creation of a national system of education. The British followed the policy that education should begin at the top and filter down to the masses. They replaced native language with English as the medium of instruction and communication. Real education thus became impossible through a foreign medium which caused incalculable intellectual and moral injury to the nation.

Successive generations of the Indo-Pakistan subcontinent grew up under the shadow of this system. They embraced European tastes and opinions, developed European outlooks, looked and judged things from the European norms, and became, by and large, estranged from the masses of the people to whom they otherwise belonged. This was how segregation of classes and sections on the basis of education was created, a situation which has become almost impossible to undo at the present time.

In the field of teacher education there was no organized and coordinated program of teacher education during the British rule. The concept of training mainly developed on academic preparation in the school subjects. The professional education was introduced very late in the second decade of the present century. It was narrow in its scope and import. The professional training of secondary teachers mainly emphasized the teaching methods and principles of teaching. Development of creative teaching and nurturing of initiative were unknown factors. These obstacles inhibited growth and development of the learners. The period of training was very short. Training institutions were poorly equipped and had no library or laboratory facilities for student teaching. The lack of administrative coordination between the government department of education and the training institutions severely affected the number and the quality of trained teachers.

During this period several educational committees which were appointed to take stock of progress of teacher education made recommendations for the remediation of the defects. These recommendations were either delayed, distorted, or never implemented.

2. At the time of independence in 1947, the country found itself the inheritor of an educational system installed by the British and founded upon political, social, economic, and cultural concepts totally different from those of an independent state.

Realizing the importance of education in a free country, the First All Pakistan Educational Conference of 1947, guided by the founder of Pakistan, Mohammad Ali Jinnah, resolved that educational policy should be "suited to the genius of the people, consonant with Muslim history and culture." At the same time it should be adaptable to modern advances through incorporation of science and technology. Such a system of education, it was emphasized, should equip the new and future generations with high sense of character, integrity, responsibility, and selfless service to the nation (4, p. 26).

The educational system could not change. On the contrary, the traditional system of the colonial period continued functioning. Unfortunately, the real founders of the country died within a couple of years of independence. The severe leadership vacuum which was created was filled by the elite class. This class continued governing the independent country, using the same tactics which the British "masters" had followed. This class has betrayed its own people to the extent that the country had to lose its eastern wing now known as Bengladesh.

Since the time of independence in 1947, the type of education imparted to the new generation failed to nurture its youth with a rich cultural heritage and the ideology on the basis of which the country was created. The lessons of national unity, faith, discipline, patriotism, leadership, and sacrifice were ignored. Such an education also failed to provide youths from various subcultures with a common set of values based on the precepts of Islam.

3. The need for a well planned training program for the teachers of all levels has largely been recognized by educators in Pakistan. Since independence in 1947 until 1950, the country was beset with numerous problems. The mass exodus of the Hindu population created a vacuum in the field of education. All-out efforts of the national government were directed toward reconstituting the faculties of educational institutions. Immigrant Muslims from India were absorbed in these institutions to meet the need for teachers. Until 1951 there was a marginal increase in the number of teacher training colleges although the number of teachers doubled.

When a six-year national education plan was launched in 1951, over one-half of the total number of school teachers did not possess any professional preparation. Teachers with insufficient qualifications and competency continued to be employed. Since 1955 the government has implemented a series of five-year national plans. Each plan has included an educational sector. The First Five Year Plan 1955-60 provided for the training of teachers and improvement of staffing at all levels. No perceptible improvement in the quality of education was noticed, although the plan had proposed the raising of the basic teacher qualifications and the improvement of training institutions and their curricula (5, p. 37).

Before the Second Five Year Plan 1960-65 was finalized, the Report of the Commission on National Education 1959 streamlined the objectives for the improvement of teacher education.

It set minimum professional standards for admission to teacher education programs and the duration of training (6, pp. 260-261). Writers of the Second Plan 1960-65 also urged that young people of real ability should be recruited for the teaching profession. Substantial progress in teacher training during this plan period was achieved.

The Third Five Year Plan 1965-70 provided for improvement of teacher training institutions, curricula, and higher academic standards for teachers. This plan could not be implemented due to war with India in 1965 when financial allocations were diverted to other sectors of the economy. Authors of the Fourth Five Year Plan 1970-75 recognized the great importance of quality in education and the crucial role of teachers in raising the standards of instruction. The plan stressed training for teachers of science, mathematics, and diversified courses, and proposed new training programs for the teachers (7, p. 165).

Since the announcement of the Educational Policy 1972-80, far-reaching changes are being made. In 1974, the government announced the establishment of a new elementary teacher education program which extended the period of teacher training from one to three years. Similar changes are expected in the secondary teacher education program, also.

4. The system of education in Pakistan at all levels has remained isolated from the social, economic, and industrial developments around the world. The absence of technical and vocational education at middle or high school levels has

proved materially unfruitful to an average youth. The general aimless pattern of education has discouraged production of marketable skills because the school or college curricula stressed memorization and rote learning to achieve a certificate or degree. Such an education inhibited the development of personality, character formation, acquisition of skills, and pride in the dignity of labor.

An average youth in Pakistan today finds life more miserable and challenging because of his background in general education. The rapid pace of industrialization in the country and the failure of educational institutions in matching technical and vocational output has resulted in underemployment of the educated in the country.

5. Education in Pakistan has been instrumental in developing manpower resources looking to the progressive increase in the output of high school and four-year college graduates. This increase, however, has been in general education. The increase in output of technical and professional manpower has all along been negligible or quite inadequate. Pakistan has only 12 percent of its people with higher education technically or professionally qualified as compared to 33 percent in Japan and 50 percent in the U.S.A. The same is true for the people with secondary education in these occupations (13, p. 67).

There is no permanent agency or organization in the country entrusted with the job of estimating educated manpower requirements and supply. In the absence of such an organization, regulation of the required manpower resources has remained uncertain. After the implementation of the Education Policy 1972-80, there seem to be bright prospects of improvement in this sector.

6. The people drawn to the teaching profession do not form a majority of young persons with real ability and talents in teaching. Those who join the teaching profession and are endowed with talents aspire and endeavor for high ranking administrative jobs which assure power, prestige, and money value. The economic and social conditions have been greatly responsible for such a trend. The present government is making all-out efforts to raise the pay scales almost at par with other civil service scales. The service conditions and other matters related to teacher well being are under active scrutiny by the present government.

7. The importance of general or liberal education has not been emphasized in teacher education so far as the conduct of teaching is concerned. This component which provides a system of knowledge, theoretical methods, attitudes, and values from the natural, social, and human sciences has received very little or no attention from the educators. Each discipline is taught in isolation with the others. The concept of interdisciplinary approach is either nonexistent or uncommon in the institutions of higher education.

In teacher education programs, the amount of general education which precedes the professional education of prospective teachers equips inadequately. In fact, the major task of providing sound and specialized general education lies with the institutions of higher education which need urgent reforms and updating.

Professional education in the teacher education institutions is only formal and related solely to method and teaching process. This is an artificial arrangement which does not correspond to the real character of teaching (12, p. 121). The arrangement and sequence of professional courses in the teacher education curriculum is not determined by scientific planning but rather by tradition. The professional courses accompany subject courses at the start; moreover, they are strictly separated from other fields of study and form a final supplementary part. The same is applied in the case of examination.

8. Unlike the student teaching program in any of the four developed countries described in Chapter IV, there is generally no provision for participation in any of the school's activities other than classroom teaching. The opportunity for working with extracurricular activities and performing duties in connection with other school and community projects is not provided. Student teaching includes experiences in only the academic phase of the teacher's work. The student teachers, therefore, are generally unprepared to assume other teaching responsibilities, nor are they allowed to do so.

The lesson presentation is of the teacher-centered, formalized recitation variety. The student teacher is not encouraged to introduce individual or group projects, reports, or other instructional techniques which are considered modern methods of teaching.

The schools in which the student teachers perform their practical training are not laboratory or demonstration schools. Instructional facilities are very inadequate.

9. There has been no major shift or deviation from the fundamentals of the educational system inherited from the British rulers since the time of independence in 1947. Thus the kind and quality of education provided to the Pakistani society has so far inhibited cultural integration. The special culture of the elite class still dominates. There seems to be an unbreakable cleavage between the elite and the masses, which runs counter to the spirit and teachings of Muslim culture. An average educated mind is easily swept away by the currents and cross currents of foreign thoughts and ideas.

In spite of a continued erosion of the native culture, the basic values of the society still remain distinct in many spheres of life. The needs of the society have changed and this change is continuing, even though misdirected. So long as the content and structure of education remains deviated from the mainsprings of the spiritual and cultural base, the fabric of society will not change. On the contrary, the split in the society into different sections will not only continue but the masses will never be rid of the elite subjugation.

10. The task before contemporary educators now is not merely an extension of education, but, more importantly, it is reforming education so that education may become a creative process and an effective instrument for creating a social order based on the values inherent in Pakistan's cultural heritage. Such an education needs reinforcement with those values which have enriched human life and civilization with the advance of science and technology during the past two centuries (8, pp. 126-129).

Pakistani educators have to look up for inspiration to Pakistan's ideals, which will inspire the educational, social, and economic goals set before the country. The future development of education depends to a greater extent on the teachers who, apart from academic and professional education, must have imagination, resourcefulness, and intellectual daring. Any measure in the direction of making the teaching profession more attractive in Pakistan would be a great step toward the enrichment of its society.

11. The Education Policy 1972-80 has profound implications for the growth, expansion, and reform in teacher education. The policy has greatly emphasized a massive shift toward science and technology and progressive integration of general and technical education, training of teachers, improvement of curricula, instructional technology, and system of examinations.

A National Planning and Development Coordination Committee, comprising nominees of the Federal Ministry of Education and the Education and Finance departments of the provincial governments, has been set up. This will coordinate the developmental activities in the field of education throughout the country (1, p. 392).

Some new institutions are being established to supplement and strengthen the existing administrative structure. These institutions are Teachers' Academy, National Research Fellowships, and Education Councils at district and provincial levels. The main objective behind the establishment of Teachers' Academy is to bring the teaching profession on par with similar academies existing for the Civil Service and Finance Service (11, p. 8).

The study of education as an elective subject at high school, junior college, and degree levels is being introduced. Underqualified teachers will be given reasonable opportunity to achieve qualification. Facilities in leave with full pay will be liberally granted to teachers to pursue further education (11, p. 8).

12. The proposed reform in education will require increases of 100 percent in capital expenditure and 60 percent in recurrent expenditures in the year 1972-73, and thereafter an annual increase of 15 percent in the total expenditure until the year 1980. By this date educational expenditure will have reached 4 percent of the gross national product. The expenditure on education in 1972 was less than 2 percent of the gross national product or one of the lowest in the world (11, p. 10).

Conclusions

After independence in 1947 to the present, there have been many concerted efforts to diminish the British influence in all aspects of the nation's life, including education. Unfortunately, the founders of the country died within a couple of years of independence. The severe leadership vacuum which was created was filled by pro-British individuals.

1. The series of educational plans has culminated in one policy that was announced March 15, 1972. This policy has brought drastic changes in the field of education in Pakistan. Education up to the high school level is now free and all private institutions have been nationalized. The curricula for elementary schools and teacher-training institutions for elementary teachers have been revised. The duration of training has been extended from one year to three years. In order to reform secondary school curricula, a study has been done with a proposed scheme. In 1974 the government published a report of the revision of the elementary teacher education program. Changes in the secondary sector must be under way.

2. The need for the program that is proposed is highlighted by the fact that with all the emphasis upon change the teacher-education system remains relatively unaltered. The disparity between professional and academic curriculum still dominates. There is a marked lack of relevance between

courses studied and the teaching techniques stressed and what the public school needs. Both the schools and training institutions remain poorly equipped and poorly maintained.

Under the proposed program, four years would be required to complete a degree or two years to receive a diploma or certificate. The only year of professional training would be excluded because the pre-service teacher would continue his academic and general education while pursuing the different phases of teacher education. Time would be allotted for the student to decide whether he would like to choose teaching as a career.

3. The new program is designed to give great stress to the practical aspects of teaching. Legislative enactments would mandate that provincial departments of education become involved in teacher education. The anticipated result is that the provinces would share more and more responsibility for educational development of their youth. The implementation of innovative teaching techniques and the translation of recent educational research into effective practices in teacher-training institutions would enhance the quality of education at several levels.

4. The new program implies that education as a discipline will not be isolated from all other disciplines in higher institutions of learning. It will be physically and psychologically treated as an integral part of higher education. In this perspective, college and university education will provide

sound background of general or liberal education to the prospective teacher from the study of national social and human sciences. This resolves the question of what to teach or the content of general education.

5. The pedagogical component in the proposed program speaks about the study of adolescent psychology, learning theories, secondary school curriculum, strategies of teaching, technology of teaching, student teaching, and philosophy of education. Other traditional courses such as Principles of Education, History of Educational Thought, School Administration, General Teaching Methods, and Measurement of Education are suggested for specialization.

6. Every effort has been made to concentrate the knowledge of education essential to the prospective teacher into the following: (a) the meaning and aim of education from a cultural, historical, and philosophical standpoint; (b) the social function of education and the place of the school in the social system--sociological, economic, political, and administrative aspects; (c) the growth and development of the child and the youth and the methods of influencing them by educational means; and (d) measuring educational achievements. Only continuous research and experimentation, however, can bring about continued progress.

Recommendations

In the light of the present study, the following recommendations are suggested for reorganization of the secondary school teacher preparation in Pakistan. These recommendations would heavily affect change in the administrative, curriculum, and operational aspects of teacher preparation. The details of these recommendations are as follows:

1. Elementary and secondary training institutions should no longer be separate entities. The merger of the two institutions minimize the current trend of teachers and the public to view the secondary level as being more prestigious.

The varied names of the training institutions should be eliminated and a common name such as School of Education should be adopted. Each existing training in a college should be changed to the College of Education and should be an autonomous body in its academic field. It should be administratively governed by the university of the geographical area in which it is located.

Each province should have a teacher education division to handle teacher education, salary, and tenure of service. The province should determine the professional standards of teachers. Common minimum educational and professional qualifications should be specified for elementary and secondary teachers.

As a part of its planning and dissemination function, the provincial department of education should continually collect data pertinent to "skilled manpower" needs. Information should be easily accessible to interested public regarding the supply and demand of trained teachers in a region or a province.

2. Each College of Education should maintain a placement office which would provide a liaison between prospective employers and student teachers. The placement office should also serve as a clearinghouse for teaching jobs in all other provinces.

Teacher preparation programs should be expanded to include a minimum of two years and a maximum of four years. Courses in professional and academic fields should be offered concurrently. The relationship between the two areas should be decided by a panel of experts representing varied interests. Balance and interrelatedness between the two types of courses should be maintained. The content of academic courses should be related to practical life structures and the professional courses should be functionally oriented.

3. Education should be introduced as an elective subject at high school and higher secondary school levels. Entrance-level evaluative criteria should be developed by each training institution and administered to students seeking admission into the teaching program.

School personnel should be increasingly and systematically involved in curriculum design, implementation, and evaluation. The proposed advisory council and teacher education committees should be actively involved in making arrangements for curriculum development; periodic revision of curricular materials should be continuously made for research and experimentation in classroom settings.

4. The scheme of general education provided the prospective teachers should foster unity rather than separateness of courses of instruction. The methods of teaching these courses should have the same aim. This should enable all young people to meet effectively the most important and widespread problems of personal and social existence. To the prospective teacher this should seek to further the development of knowledge, skills, attitudes, and interests that are fundamentally related to needs and responsibilities shared with contemporaries destined for other vocations.

The idea that general education may be considered as completed at some particular time should not be encouraged. A leading aim of college or university programs of general education (or of professional education) should be to make it probable that graduates will continue their growth in understanding and competence after they have become teachers. General education, therefore, should provide understanding for the political, economic, social, and moral problems of Pakistani society.

5. The lecture method of teaching should be supplanted, for the most part, by such techniques as group discussion,

simulation and games, microteaching, and personalized instruction.

The rationale and skills related to the use of instructional media should be emphasized. Teachers should have opportunities to conceptualize, construct, or select and use appropriate media in instructional settings. Adequately stocked and staffed learning resource centers should be provided and maintained in all of the schools and training institutions. Courses should be structured to include the utilization of variety of audio-visual resources by teachers and students.

6. Training institutions and schools should be encouraged to undertake joint research projects on aspects of teacher improvement such as curriculum development and teaching techniques. Provincial and central governmental agencies should allocate funds for research to participating institutions and should provide for the dissemination of research findings. The functions of the Board of Education should be related to research on teacher education, rather than teacher examination. The gradual redirection of the function should take place as a system of evaluation is developed by each educational institution. The Colleges of Education should work cooperatively with the schools, and should encourage their involvement in the planning of teacher preparation programs.

7. The curriculum of secondary teacher preparation should be related to the objectives of secondary school

education. The academic and general courses provided by the universities should be revised and made more relevant to life situations. In Pakistan, as an ideological country, the teaching of religion beginning in early childhood is supposed to be obligatory. In order to strengthen religious knowledge, the introduction of basic teachings should begin at early stages in the child's schooling. The teaching of the cultural heritage of Pakistan, the history and/or role of governments in shaping the country should be made compulsory.

8. Professional organizations of teachers at the provincial and national levels should be formed. They should provide a valid means of assessing teachers' perspectives on educational matters and should facilitate teacher-involvement in curricula revision.

9. Schools participating in the student teaching programs of institutions should be considered laboratory schools. Coordination of efforts between the two institutions should be continually reviewed.

10. Private and public educational foundations should be formed to undertake and finance educational projects in the country. Since the nationalization of educational institutions in 1972, private enterprise has not been allowed in the field of education. Nationalization should be examined to determine the extent to which it curbs community initiative and nurtures dependency upon government.

11. A continuum of pre-service and in-service education of teachers should be established. The continuing intellectual and professional growth of teachers should be stressed at all levels of training.

12. The new program is designed to base beginning-teacher requirements on performance and achievement of the individual pre-service teacher rather than upon fixed time segments. The traditional system of annual examination should be discontinued. A system of semesters and year-round education should be introduced to better meet the schedules of prospective teachers.

13. Additional studies should be made relative to additional components of the secondary teacher education programs that have been mentioned in this study.

Teacher education in Pakistan leading to a certificate, diploma, or degree is now a continuous compulsory block of nine months duration. This period embraces both the theory phase and the practicum phase. A final qualifying examination is required. It is proposed that the qualifying examination be discontinued and that any education major be allowed to start completing student teaching after the required course work.

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APPENDIX A

Lesson Plan

Class IX (Time 45 Minutes)

Subject: English Poetry.

Topic: "The Solitary Reaper."

Material Aids: (1) Pictures depicting some Pakistani workers in a field; (2) picture depicting a single Highland girl working in the field and a man standing in a corner at the foot of the hills; (3) pictures of the cuckoo and the nightingale; (4) a map of Scotland.

Previous Knowledge: The students have read simple poems and can speak simple English.

Aims of Lesson: (1) to help the students appreciate English poetry; (2) to enable the students to read poetry with expression and correct intonation.

Specific Aim: To enable the student to appreciate the thoughts and feelings of one of the great English poets, William Wordsworth, as expressed in "The Solitary Reaper."

Preparation: In order to prepare the students for the day's lesson the teacher will show them a picture depicting

Pakistani workers and ask them the following questions: (1) How many workers are there in the field? (Seven to eight.) (2) What are they doing? (Reaping, binding, gathering.) (3) To what nationality do they belong? (Pakistani)

Next the teacher will proceed from the familiar to the unfamiliar. The picture depicting a single Highland girl will be shown and a comparison will be made between the pictures. Questions: Who is in the field? What is she doing? To what nationality does she belong? (Scottish.) Who else is watching her? (Poet.)

Statement of Aim: Today we are going to read to enjoy a poem about this Highland girl who is working alone in the field and singing a sad song.

Presentation: Three stanzas of the poem instead of four will be dealt with in class, keeping in view the time factor. The poem will first be treated as a whole and then each stanza will be dealt with separately as a single unit.

The teacher will give a model reading of the poem and convey its meaning through expressive reading. Next a student who reads well will be asked to read the whole poem aloud.

The central idea of the poem will then be elicited by means of the following questions: What is the poem about? What kind of feeling does this poem show? What does the poet feel when he hears the song of the Highland girl?

Each stanza will now be treated as a separate unit so that the students can understand the difficult words and appreciate the poem.

First Stanza

Matter

Behold her, single in the field,
Yon solitary Highland Lass!
Reaping and singing by herself;
Stop here, or gently pass!
Alone she cuts and binds the grain,
And sings a melancholy strain;
O listen! for the vale profound
Is overflowing with the sound.

Method

1. Loud reading of the first stanza by the teacher.

2. Loud reading by a student

Matter

Behold:	Look
Solitary:	Lonely
Highland Lass:	Girl from the mountains of Scotland
Melancholy strains:	Sad song.
Vale profound:	Deep valley.

Method

3. Explanation of words

Since this is an appreciation lesson, the aesthetic aim will be kept in the forefront and difficult and new words will not be dealt with in great detail. The words and their meanings will be written on a "roll-up" and brief explanations with emphasis on the spirit and atmosphere depicted by these words will be given where necessary.

4. A student will be asked to read the stanza.

5. Comprehension and appreciation questions will be asked: (1) Who is single in the field? (2) What is she doing by herself? (3) What kind of song is she singing? (4) What is overflowing with the sound? Why? (5) Which words convey the idea of solitude? (Single, Solitary, by herself, alone.) (6) Which lines convey the idea of an all pervading silence?

APPENDIX B

Proposed Scheme of Studies For Secondary Schools

Subjects	Papers	Marks	Periods Per Week
Component I			
1. Urdu/Bengali	Two Papers	100 to 150 marks	4-6
2. English	Two Papers	100 to 150 marks	4-6
3. Pakistan Studies	One Paper	75 marks	3
4. Islamiyat	One Paper	75 marks	3
(Any subject from list Y for non-Muslims)			
Component II			
One of the following Groups: (A) SCIENCE GROUP			
1. Mathematics	One Paper	100 marks	4
2. Physics and Space Science	One Paper	100 marks	4
3. Chemistry	One Paper	100 marks	4
4. Biology	One Paper	100 marks	4
(B) GENERAL GROUP			
1. General Mathematics or Household Accounts and Related Problems (Elements of Home Economics)(for girls not offering Home Science courses in Component III).	One Paper	100 marks	4
2. General Science	One Paper	100 marks	4

3.	Two subjects from the "Y" List of subjects	One Paper	100 marks	8

Component III

VOCATIONAL SUBJECTS.

One Vocational Subject from the "Z" list of subjects	Theory and Practice	250 marks	10

Component IV

COMPULSORY NON-EXAMINATION EXERCISES

(a) Physical Culture 1
(15 minutes will be given daily before the first period.)

(b) Socially useful manual work for inculcating dignity of labour.
(72 hours in the two academic years preceding the examination)

"Y" LIST OF SUBJECTS (100 Marks Each).

1. Physiology and Hygience.
2. Geometrical and Technical Drawing.
3. Geology.
4. Astronomy and Space Science.
5. Environmental Studies.
6. Geography.
7. Food and Nutrition.
8. Islamic History or Islamic Studies.
9. History of Indo-Pak Sub-continent
10. Economics.

11. Music.

12. Civics (Not for those who have taken it as alternative to Islamiyat)

13. Art and Model Drawing.

14. Civil Defence and First Aid.

15. Arabic.

16. Persion.

17. Urdu Literature.

18. English Literature.

19. Panjabi.

20. Pashto.

21. Sindi.

22. Bengali.

23. German.

24. French.

25. Turkish.

26. Chinese.

27. Russian.

28. Spanish.

29. Latin.

30. Japanese.

"Z" LIST OF SUBJECTS (250 Marks Each)

(This list can be added to as the need arises)

1. G E N E R A L:

    1. Education
    2. Health and Physical Education.
    3. Calligraphy.
    4. Photography.

2. C O M M E R C I A L:

    1. Urdu Type-writing.
    2. Urdu Short-hand writing.
    3. Business Methods and Correspondence.
    4. Secretarial Practice.
    5. Accounting and Book Keeping.
    6. Industrial Book Keeping.
    7. Bank Book Keeping.
    8. Insurance and Estate Broking.
    9. Salesmanship.
    10. Market Surveying
    11. Buying and Selling Practice.
    12. Import and Export Procedures.
    13. Commerical Geography.

3. A G R I C U L T U R A L.

    1. General Principles of Farm Management.
    2. General Principles of Increasing Crop Yields.

3. General control of Weeks, Pests and Diseases of Common Crops.

4. General Caro of Domestic Animals and their Young.

5. Common Crops, Soils and Fertilizers and their Relationship.

6. General Principles of Live-Stock Breeding.

7. Sheep Breeding.

8. Poultry Farming.

9. Floriculture.

10. Dairy Farming.

11. Apicture.

12. Sericulture.

13. Pond Fish Culture.

14. Vegetable-growing.

15. Fruit-growing.

16. General Forestry.

17. General Principles of Agricultural Marketing.

18. Storage of Common Products of Land and Livestock.

4. <u>FOOD TECHNOLOGY</u>.

1. Confectionery and Bakery Practice.

2. Preservation of Fruits, Vegetables and other Foodstuffs.

5. INDUSTRIAL:

1. Automobile Servicing.
2. Auto-electricity.
3. Radio and Television Servicing.
4. Refrigerator and Air-Conditioner Servicing.
5. Wood Work.
6. Metal Work.
7. Leather Work.
8. Wood Carving.
9. Pottery and Ceramics.
10. General Electrician Practice.
11. Plumbing and Pipe Fitting.
12. Civil Draftsmanship.
13. Mechanical Draftsmanship.
14. Surveying.
15. Tracer Practice.
16. Welding Practice.
17. Painting and Coloring of Buildings.
18. Dyeing, Dry Cleaning and Laundry.

6. HOME SCIENCE (FOR GIRLS ONLY)

1. General Principles of Home Economics
2. Principles of Farm Household Management.
3. Child Care and Family Relations.

4. Clothing, Textile and Garment Making.

5. Machine Knitting and Embroidery.

6. Doll Making and Interior Decoration.

7. Kitchen Gardining.

8. Cooking and Kitchen Mangement.

9. Nursing and First Aid.

"Y" LIST OF SUBJECTS (100 Marks Each).

1. Physiology and Hygience.

2. Geometrical and Technical Drawing.

3. Geology.

4. Astronomy and Space Science.

5. Environmental Studies.

6. Geography.

7. Food and Nutrition.

8. Islamic History or Islamic Studies.

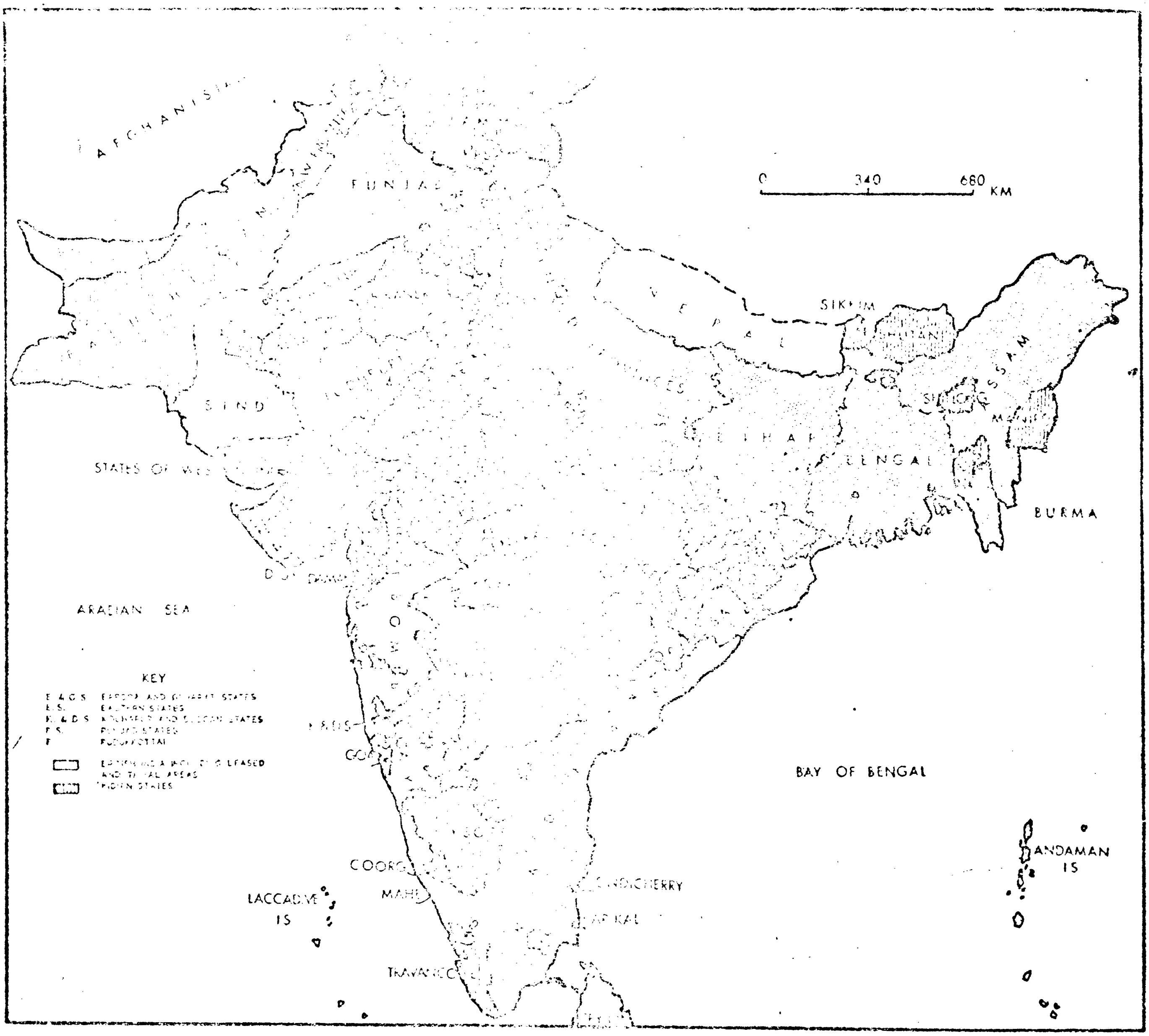
9. History of Indo-Pak Sub-continent.

10. Economics.

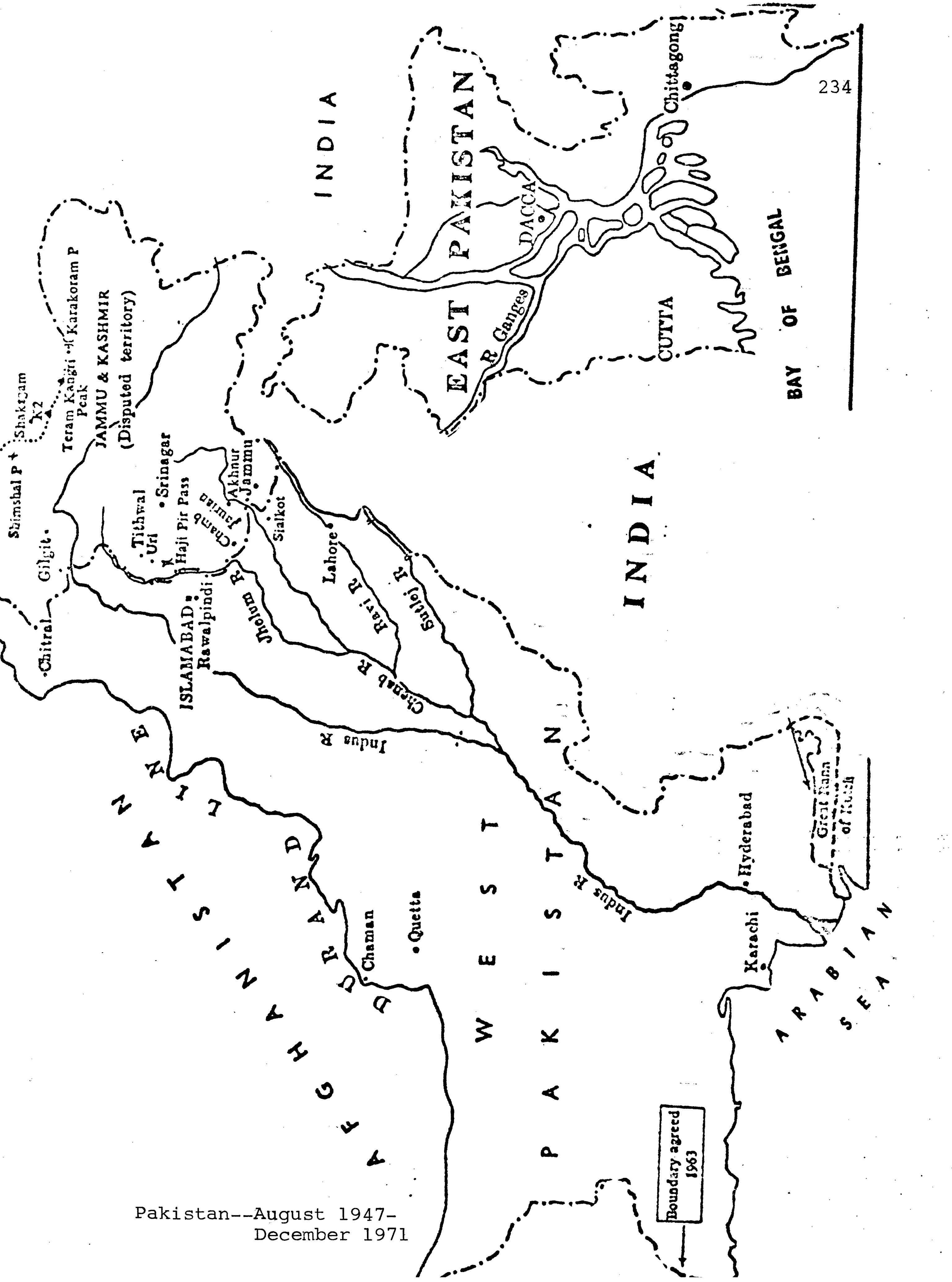
11. Music.

12. Civics (not for those who have taken it as an alternative to Islamiyat).

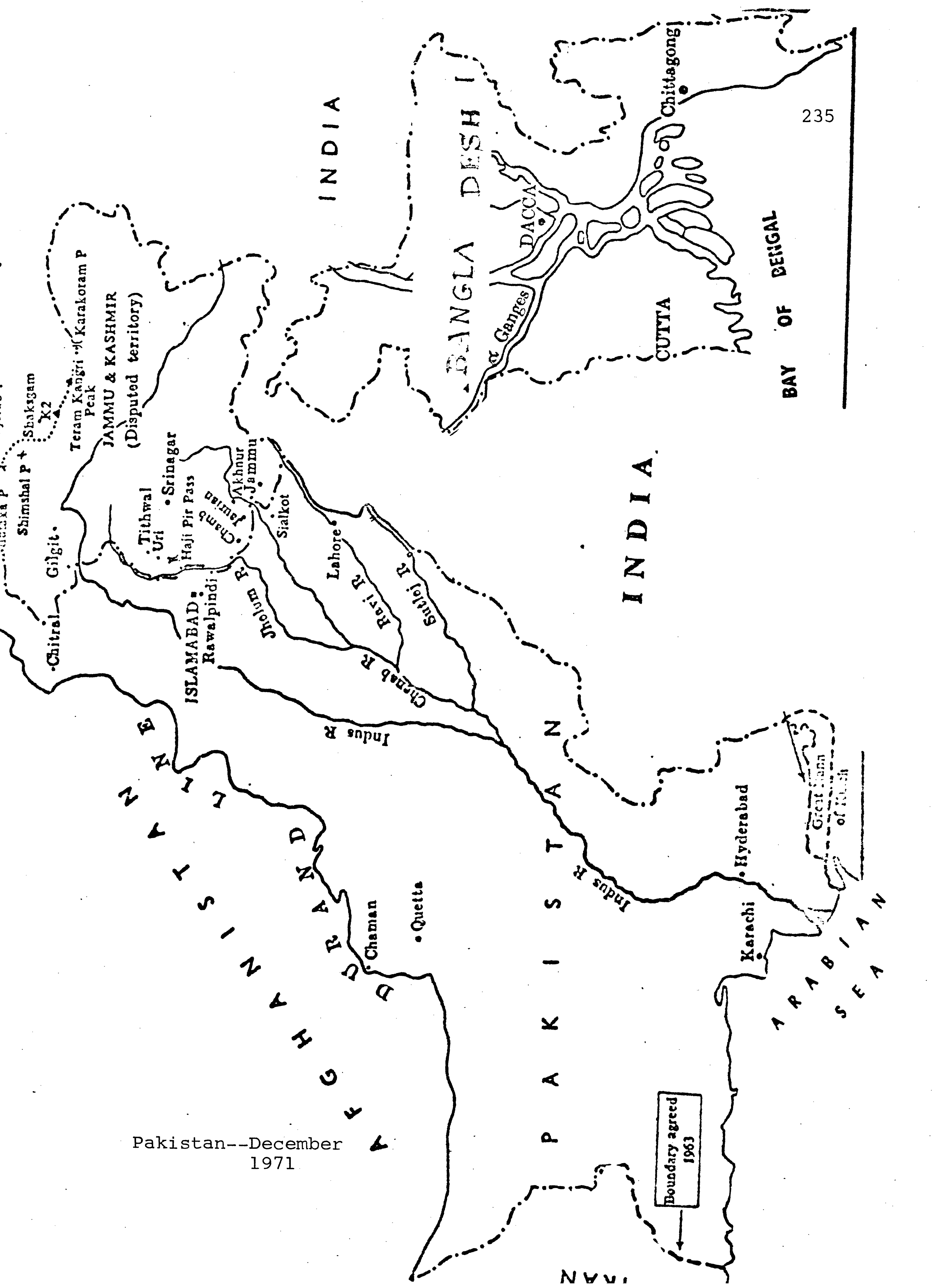
13. Art and Model Drawing.



Indian Subcontinent Before Independence in 1947



Pakistan--August 1947-
December 1971



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