

SURVEY STUDY
ON
RESEARCH IN
SUPPORT OF DECISION-MAKING
OR POLICY-MAKING IN EDUCATION
(A Case Study of Pakistan)

by

DR. R. A. FAROOQ



Academy of Educational Planning and Management
Ministry of Education
Sarya Chowk, P.O. Box 1566
Islamabad

September, 1989

TRABALLO MEMORIAL LIBRARY

ACC. No. 5036

Date 2-7-1991

Class No. 370.78061/F235

MFN: 215

Annotated Bibliographies

Educational Policies

Bibliographies

Educational Research

Literature Review

Research Report

Surveys

Pakistan. AEPDM

Decision Making

Case Studies

Policy Making

AEPDM

DERP

Academy of Educational Planning and Management
 Ministry of Education
 G-Block, P.O. Box 1242
 Islamabad

PREFACE

Over a short span of 4-5 years, the Academy has gained recognition from National and International agencies. This recognition is attributed to the hard work put in by the Academy's faculty which has been vigorously pursuing its programmes of research and training. On the one hand they have been striving to cope with the increased volume of work, and on the other hand, maintaining the qualitative aspects of their assignments.

This study was initiated by the Academy of Educational Planning and Management in May, 1987. Dr. R. A. Farooq, Specialist in the Academy undertook the assignment for UNESCO Regional Office for Education, Bangkok. Despite his other engagements and official responsibilities he has been able to visit the various training and research institutions located in the provincial headquarters of the country. He has made every effort to collect the documents and prepare the annotated bibliography alongwith detailed description of three selected studies. This will hopefully provide the researchers of education policy/planning and management an easy access to the documents/studies carried out in Pakistan on various aspects of Education Policies.

The management of the Academy is grateful to Dr. Farooq for his vigorous efforts in finalization of this document.

August, 1987

(ABDUL GHAFOR)
Director General (a.i)

PREFACE

Over a short span of 4-5 years, the Academy has gained recognition from national and international agencies. This recognition is attributed to the hard work put in by the Academy's faculty which has been vigorously pursuing its programmes of research and training. On the one hand they have been staying abreast with the increased volume of work, and on the other hand, maintaining the qualitative aspects of their assignments.

This study was initiated by the Academy of Educational Planning and Management in May, 1987. Dr. R. A. Farooq, Specialist in the Academy undertook the assignment for UNESCO Regional Office for Education, Bangkok. Despite his other engagements and official responsibilities he has been able to visit the various training and research institutions located in the provincial headquarters of the country. He has made every effort to collect the documents and prepare the annotated bibliography accordingly. Detailed description of these selected studies, this will hopefully provide the researchers of educational policy-making and management an easy access to the documents. Certain key documents are listed in various aspects of Education Policy.

The management of the Academy is grateful to Dr. Farooq for the vigorous efforts in finalization of this document.

TABLE OF CONTENTS

S.No.	Contents	Pages
(1)	Preface	
(2)	Introduction.	i - iv
(3)	<u>Section-I</u> Annotated Bibliography of Research in Support of Decision Making or Policy Making in Education.	1-30
(4)	<u>Section-II</u> Detailed Description of Selected Studies.	31-61

TABLE OF CONTENTS

A. 1. 1977

Page No.	Contents	Page
(i)	Preface	vii
(ii)	Introduction	1-14
(iii)	Section I Annotated Bibliography of Research in Support of Decision Making or Policy Making in Education	1-30
(iv)	Section II Detailed Description of Selected Studies	31-81

(i)

SURVEY STUDY
ON
RESEARCH IN
SUPPORT OF DECISION-MAKING
OR POLICY-MAKING IN EDUCATION

INTRODUCTION:

Sharing of experiences has always proved to be a fruitful and helpful activity particularly among the countries having almost similar resources and identical education systems. UNESCO has kept on encouraging the member states to study each other's experiences in designing, implementing and testing different innovative approaches that help in decision-making or policy-making in education. This study was undertaken as a result of a contract between the Pakistan National Commission for UNESCO and the UNESCO Regional Office for Education, Bangkok. Academy of Educational Planning and Management was further requested by PNCU to complete the study.

Guidelines for survey study (Terms of Reference) were provided by UNESCO Regional Office.

TERMS OF REFERENCE:

1. The Survey Study will consist of two sections:

1.1 Section - I

A listing of the important studies, researches, surveys that have been undertaken in support of and have had an impact on educational decision-making and policy-making (over the period 1976-1986), that have led to education reform in support of significant socio-economic policies such as access to education, eradication of illiteracy, meeting the problems of unemployment or rural poverty, moving into a new phase of industrial growth.

(i)

SURVEY STUDY
ON
RESEARCH IN
SUPPORT OF DECISION-MAKING
OR POLICY-MAKING IN EDUCATION

INTRODUCTION:

Sharing of experiences has always proved to be a fruitful and helpful activity particularly among the countries having almost similar economic and educational systems. UNESCO has kept on encouraging the member states to study each other's experiences in designing, implementing and testing different innovative approaches that help in decision-making or policy-making in education. This study was undertaken as a result of a contact between the Pakistan National Commission for UNESCO and the UNESCO Regional Office for Education, Bangkok. Academy of Educational Planning and Management was further requested by PNCU to complete the study.

Guidelines for survey study (Terms of Reference) were provided by UNESCO Regional Office.

TERMS OF REFERENCE:

1. The Survey Study will consist of two sections:

1.1 Section - I

A listing of the important studies, researches, surveys that have been undertaken in support of and have had an impact on educational decision-making and policy-making (over the period 1975-1985) that have led to education reform in support of efficient socio-economic policies such as reform in education, eradication of illiteracy, meeting the problems of unemployment or rural poverty, moving into a new phase of industrial growth.

1.2 Section - II

Detailed description of three studies, researches or surveys from (1.1) above indicating the following:

- 1.2.1 - The reasons that led to the under-taking of specific studies and surveys. For example, were they designed simply to identify data and the magnitude of problems, or to increase public awareness, or to propose new strategies, etc. or were they motivated by a combination of such and other factors.
- 1.2.2 - How the specific designs of the studies, researches and surveys were selected so as to produce the required outputs for decision-making and in which way (if any) the designs influenced the outputs such as in terms of validity, reliability.
- 1.2.3 - Institution(s) which undertook the implementation of the studies, researches or surveys.
- 1.2.4 - Main results, conclusions or data emanating from the studies, researches or surveys.
- 1.2.5 - Manner in which the results, conclusions or data supported decision or policy-making and the particular education decisions or policies that resulted from(1.2.4).

METHODOLOGY:

In order to prepare a listing of the studies, researches and surveys conducted in support of educational policy-making or decision-making and a detailed description of selected three studies it was necessary to collect the reports of such studies researches or surveys. For this purpose the Researcher contacted different organisations, institutions and individuals. The response was not encouraging and the Researcher had to visit different organisations personally to collect the reports.

1.1 Section - II

Detailed description of three studies, researcher or survey firm (1.1) above indicating the following:

1.1.1 - The reasons that led to the undertaking of specific studies and surveys, for example, were they designed simply to identify data and the magnitude of problem, or to increase public awareness, or to propose new strategies, etc. or were they motivated by a combination of such and other factors.

1.1.2 - How the specific design of the studies, researcher and surveys were selected so as to produce the required outputs for decision-making and in which way (if any) the design influenced the outputs such as in terms of validity, reliability.

1.1.3 - Institution(s) which undertook the implementation of the studies, researcher or surveys.

1.1.4 - Main results, conclusions or data emanating from the studies, researcher or surveys.

1.1.5 - Manner in which the results, conclusions or data supported decision or policy-making and the particular education decisions or policies that resulted from (1.1-5).

METHODOLOGY:

In order to prepare a listing of the studies, researcher and surveys conducted in support of educational policy-making or decision-making and a detailed description of selected three studies it was necessary to collect the reports of such studies researchers or surveys. For this purpose the researcher contacted different organizations, institutions and individuals. The response was not encouraging and the researcher had to visit different organizations personally to collect the reports.

The organisations/institutions contacted through correspondence, on telephone and personally include:

1. Allama Iqbal Open University, Islamabad.
2. Planning and Development Division, Ministry of Planning and Development, Islamabad.
3. Ministry of Education, Islamabad.
4. Planning and Development Departments of Punjab, Sind, N.W.F.P., and Baluchistan.
5. Boards of Technical Education of Punjab, Sind, N.W.F.P., and Baluchistan.
6. Institutes of Education and Research of the Universities of Punjab, Peshawar, Gomal, Sind and Baluchistan.
7. Curriculum Research and Development Centre, Lahore.
8. Bureau of Curriculum and Extension Wing, Jamshoro.
9. Bureau of Curriculum Development and Education Extension Services, Abbottabad.
10. Bureau of Curriculum Development and Extension Centre, Quetta.
11. National Institutes of Public Administration Lahore, Karachi, Peshawar and Quetta.
12. Pakistan Administrative Staff College, Lahore.
13. Pakistan Academy for Rural Development, Peshawar.
14. Education Departments of the Punjab, Sind, N.W.F.P. Baluchistan and A.J.K.

Instead of mere listing of the studies in support of decision making or policy making in education the Researcher has given a brief annotation of each study/survey so that the readers/beneficiaries may know briefly about the contents of the studies, researches or surveys included in the listing.

The studies included can definitely help in policy making or decision making in one way or the other. Most of the studies were

The organizations/institutions contacted through various sources, as follows and personally visited:

1. Allama Iqbal Open University, Islamabad.
2. Planning and Development Division, Ministry of Planning and Development, Islamabad.
3. Ministry of Education, Islamabad.
4. Planning and Development Department of Punjab, Sind, W.P.F. and Balochistan.
5. Board of Technical Education of Punjab, Sind, W.P.F. and Balochistan.
6. Institute of Education and Research of the Islamic Republic of Pakistan, Faisalabad, Punjab, Sind and Balochistan.
7. Curriculum Research and Development Centre, Lahore.
8. Bureau of Curriculum and Extension Wing, Karachi.
9. Bureau of Curriculum Development and Extension Extension Services, Abbottabad.
10. Bureau of Curriculum Development and Extension Centre, Quetta.
11. National Institute of Public Administration Lahore, Karachi, Faisalabad and Quetta.
12. Pakistan Administrative Staff College, Lahore.
13. Pakistan Academy for Rural Development, Faisalabad.
14. Education Departments of the Punjab, Sind, W.P.F., Balochistan and A.J.K.

Instead of mere listing of the studies in support of decision making or policy making in education the researcher has given a brief evaluation of each study/survey so that the reader/beneficiary may know briefly about the contents of the studies, questionnaires or surveys included in the listing.

The studies included can definitely help in policy making or decision making in one way or the other. Most of the studies were

commissioned by government agencies and were supposed to be helpful in future planning and decision making. These studies have been and are being used by the Working Groups constituted for the preparation of Seventh Five Year Plan.

This introductory chapter is followed by two major sections of the report. Section - I includes a brief annotation of over 50 studies. A detailed description of three selected studies has been given in Section - II. It is hoped the report will prove to be useful in sharing inter-country experiences.

...

Commissioned by Government agencies and were supposed to be helpful in future planning and decision making. These studies have been and are being used by the Working Group constituted for the preparation of Seventh Five Year Plan.

This introductory chapter is followed by two major sections of the report. Section - I includes a brief annotation of over 50 studies. A detailed description of these selected studies has been given in Section - II. It is hoped the report will prove to be useful in shaping inter-country experience.

SECTION - I

ANNOTATED BIBLIOGRAPHY OF RESEARCH IN SUPPORT OF DECISION-MAKING OR POLICY-MAKING IN EDUCATION.

Academy of Educational Planning and Management.
Performance of Educational Planning, Management and
Supervision System as Evidenced in the School Study
in Abbottabad District, Islamabad, 1983, 191 + 19p.

The study was designed to apprise the Academy's officers with the multi-dimensional aspects of Education in the Country. The study comprised three main sections such as (1) Overview of the process of planning, management and supervision; (2) Sample study of schools in Abbottabad Tehsil and (3) Special comparative study of schools in frequent contact with an outside agency (practice schools of the Government College of Education at Haripur) and control (Non-practice schools). On the basis of analysis of data, valuable findings have been recorded in the study.

Academy of Educational Planning and Management.
An Evaluation Study of Overseas Scholarship Projects of the
Ministry of Education, Government of Pakistan, Islamabad,
1985, 129p.

The main purpose of the study was to evaluate the schemes of overseas scholarships and to advise the Ministry of Education in making decisions in the future about the schemes. The study team examined the documents and held interviews with the Vice Chancellors of the Universities; Additional Secretaries/

Deputy Secretaries; Directors of Technical Education and the Scholars to identify the problems being faced by the scholars. Relevant information/data were gathered through questionnaires developed for the purpose. On the basis of analysis of data some useful recommendations were recorded for future planning, and policy making.

Academy of Educational Planning and Management.
Study on the Education of Talented Students from Rural/
Under Developed Areas in Cadet Colleges and Public
Schools, Islamabad, 1986, 144p.

The study attempted to answer some of vital questions regarding the performance of students, the expenditure involved and the efficacy of the scheme as a whole so that it could provide a good feedback to planners for similar schemes in the future. The terms of reference of the study were provided by the Planning Division of the Ministry of Planning and Development. Relevant information on major aspects of the scheme were collected through questionnaires developed for the purpose. The analysis of data revealed some alarming findings regarding per student expenditure of the scheme. The study is expected to be helpful in decision making for future schemes of this kind.

Beg, Muhammad Ishfaq et al.
Evaluation of P.T.C./C.T. Curricula, Lahore: Curriculum
Research and Development Centre, 1987, 33p.

The study was conducted to assess the effectiveness of the existing P.T.C/C.T. curricula in order to help the teacher

training institutions in improving the quality of pre-service teacher training programmes. Eleven teacher training institutions out of thirty five were selected as sample for gathering the opinion of the teacher trainers about the existing curricula through an opinionnaire. The findings of the study are expected to be helpful in decision making or policy making regarding the teacher training programmes.

✓ Bhutto, Ghulam Raza N and Ali Muhammad A Mehar.

The Quality of Teachers' Performance in Primary Schools of the Province of Sind as a sound Base for Secondary Education, Hyderabad: Bureau of Curriculum & Extension Wing, 1978, 186p.

The study attempts to examine the quality of teachers' performance based on their academic and professional qualifications in the primary schools of Sind and to offer some suggestions for the improvement of their qualifications if the present qualifications donot meet the standard criteria. The study revealed that majority of the present teachers are ill-educated, ill-trained and have not received compulsory in-service training. The training institutions still follow the traditional programme of teacher training. In the concluding chapter some suggestions for the improvement of the academic and professional competency of the primary teachers have been made with respect to reorganisation of teacher education programmes and effective supervisory practices in the country.

Bukhari, M. Maqsood Alam.

Demand and Supply of Primary and Middle Schools' Female Teachers in Pakistan (For the period 1981-90), Islamabad: Allama Iqbal Open University, 1984, 186p.

The study aimed at analysing prevalent data regarding the primary and middle school female teachers in Pakistan and to make projections for their demand and supply for the period 1981-82 to 1990-91. The study was a part of research component of the Third Education Project. The findings of the study may assist planners and educators at Federal and Provincial levels to better plan elementary education for girls in Pakistan. Low budgetary allocations for education sector and particularly the teacher education programmes might have been partly due to the fact that future requirements were not accurately estimated. This study may be helpful in providing approximately accurate estimates for the demand and supply of female teachers for the primary and middle level of education in Pakistan for the period 1981-82 to 1990-91 on the basis of which teacher education at this level may be re-oriented accordingly.

Bureau of Curriculum Development and Education Extension Services, N.W.F.P.

Appraisal of In-service Teachers Training Programme at Primary School Level in N.W.F.P., Abbottabad, 1979, 147+22p.

The main purpose of the project was to assess and evaluate the In-service Teachers Training Course designed and conducted by the Education Extension centre, Abbottabad. It

was hoped that this evaluation would help in improving the future courses of such nature and future decisions would be made on the basis of previous evaluation and assessment.

✓ Bureau of Curriculum Development and Education Extension Services, N.W.F.P.
 Evaluation Study of the Guide Books for Class Fifth in the subjects of Science Mathematics, Social Studies, Islamiyat, Urdu, Abbottabad, 1986, 54+12p.

The purpose of this study was to know whether the curriculum material in the shape of Guide Books for class- V had been properly distributed among the schools or not. It was also aimed at discerning whether the Guide Books so distributed were actually utilized and had useful effects or not. It was hoped that the results obtained from the study with regards to distribution and proper utilization of the Guide Books would help the planners for making decisions for the future actions in this area of national concern.

Bureau of Curriculum & Extension Wing, Sind.
 National Survey of Community Resources (Sind) for Implementation of Agro-technical Studies Programme (in collaboration with Federal Ministry of Education, Islamabad), Hyderabad, 1976, 117p.

The survey was conducted for mapping of community resources for the development of Agro-technical Education. This exercise was expected to help the planners, the administrators and the teachers of Agro-tech. studies programme for the mobilization of community resources for its successful

implementation. The report also includes the proceedings of the seminar conducted for the purpose to make some decisions and record valuable recommendations based on the sample survey.

✓ Bureau of Curriculum & Extension Wing, Sind.
Adequacy of Introducing Mathematics and General Mathematics at Intermediate Level, Hyderabad, 1983, 32+62p.

The study was designed to survey the opinion of the working teachers of mathematics of Intermediate level for introducing the proposed mathematics curricula for students of science and humanities groups. It was also intended to identify organisational and academic needs for effective implementation of the proposed curricula. Analysis of mathematics curricula was also done as a part of the study. The study was conducted at National level and 58 Colleges from Punjab, Sind, N.W.F.P., Baluchistan, FATA and Federal Area were included in the sample.

Bureau of Curriculum & Extension Wing, Sind.
Evaluation of the Implementation of National Training Kit Programme in Sind (in collaboration with UNICEF) Jamshoro, 1983, 60p.

A sample of 255 primary schools of both sexes from Urban as well Rural areas was selected on stratified random sampling basis through out the province according to standard criteria. Different questionnaires were developed to invite the views regarding implementation, impact and content of

kit items from the Headmasters, DEOs/SDEOs, area supervisors, evaluators etc. On the basis of analysis of data the findings have been recorded and recommendations have been made for future decision making.

Bureau of Curriculum & Extension Wing, Sind.
 Illuminative Study on Teacher Training (in collaboration with Pakistan Primary Education Project IV Sind).
 Hyderabad, 1983. 50p.

The study was designed to assess the quality and output of training programmes and to assess the effectiveness of level C programme in achieving its objectives. Alongwith the major focus on level C, the level B and level A training programmes had also been investigated. It was assumed that effective in-service training programme would improve teacher competence. It was concluded that inspite of constraints experimental group made significant contribution to the project. Such studies can definitely help in decision making regarding the planning for teacher education programmes.

Bureau of Curriculum & Extension Wing, Sind.
 Report on Evaluation of Population Education Programme.
 (In collaboration with Federal Ministry of Education and Population Welfare Division, Islamabad) Hyderabad at Jamshoro, 1986. 85p.

The study aimed at finding out the improvement in the knowledge and attitude of the teachers regarding the population Education concepts and issues. It was also intended to find out whether the steps taken to train the teachers had

proved to be successful or not. For this purpose an instrument was developed for the evaluation of teachers, learners and learning materials. Stratified random sampling procedure was used to include 25 schools (15 male & 10 female) in the sample. The findings in respect of each instrument have been recorded separately. It has been recommended that the period of training should be extended and there should be continuous evaluation of the programme.

✓ Bureau of Curriculum & Extension Wing, Sind.
A Study on Some Critical Aspects of Secondary Education in the Countries of Asia and Pacific, Hyderabad, 1987, 71+27p.

The major objective of the study was to identify the areas of common interest and to provide a source of research data on these areas which will form a basis for improvement in the quality of secondary education. The study was focused on the five major areas of secondary education such as organisation, enrolment, curriculum, teacher preparation and system of assessment. In order to provide a background for the study the structure of secondary education has been discussed briefly.

Centre for Applied Economic Studies, University of Peshawar.
Training and Employment of Teachers (Sponsored by Planning Division, Government of Pakistan) Peshawar, 1986, 127+106p.

The study was conducted for Planning Division, Government of Pakistan. The study aimed at making an appraisal of the training facilities provided to the primary and secondary

school teachers during the plan period (1978-83) in terms of utilization of such facilities; assessing the impact of the residential facilities provided for female teachers on their employment in schools in the rural areas. The study also took into the consideration the total number of the teachers employed during the period in public and private schools. Four sets of questionnaires were developed for collection of data. Findings of the study have direct bearing upon the planning of effective teacher education programme in the country.

Centre of Excellence in Water Resources Engineering, University of Engineering & Technology,
Quality of Input and Output of Technical and Engineering Institutions in Pakistan (Sponsored by Planning and Development Division) Lahore, 1986. 137p.

The major objectives of the study were to determine the demand for technical education and the quality of output of these institutions. Keeping in view the objectives, separate proformas were prepared to collect data on intake, institutional facilities, output and demand & supply projections. It has been inferred that planning targets were not achieved in the previous plans and neither these would be achievable during the sixth plan. It has, therefore, been recommended that the Planning Division should continuously collect the needed information on standard proformas every year to set realistic targets.

Choudhry, Fazal Hussain and R. A. Farooq.

Study of the Management Structure of the Education Department, Government of Baluchistan, Islamabad: O&M Division, Cabinet Secretariat, 1984, 27+24p.

The study was conducted on the request of Government of Baluchistan. The terms of reference were indicated by the concerned Government for overall improvement of the quality of education in the province. Prior to visiting the Education Department, Government of Baluchistan, the study team also visited the offices of NWFP Government with a view to apprising themselves of the structure and working of the Education Department of that province which had a number of similarities with the physical features and educational needs of the Government of Baluchistan. The structure was studied in detail by the research team and on the basis of documents studied and observation made during the visit the team recorded a comprehensive list of findings and made some practical recommendations for the improvement of management structure of the Education Department, Government of Baluchistan.

Curriculum Research and Development Centre.

A Comparative Study of the Effectiveness of the Inquiry and Traditional Methods for Teaching Biological Sciences in Laboratory at the High School level, Lahore, 1984, 169p.

The study was conducted to compare the effectiveness of traditional method with the inquiry method for teaching biological sciences in the laboratory at the secondary level. A

sample of 400 students studying biology at secondary level was drawn from the Lahore based High Schools. 400 students were further divided into 8 groups (4 experimental and 4 control). The findings of the study revealed that the inquiry approach is more effective as compared to traditional method.

Curriculum Research and Development Centre.

The Assessment of, And Development of A Strategy/Strategies for Multigrade Teaching in Two-teacher Rural Primary Schools of the Punjab, Lahore, 1984, 73p.

The part I of the study deals with the assessment of the primary schools in terms of physical facilities. On the basis of this assessment the part II of the study deals with development of strategies for multi-grade teaching in two-teacher rural primary schools. It was expected that if the objectives of the study were fully achieved it would help in decision making regarding the planning for effective methods to improve the teaching learning process in the rural/primary schools.

✓ **Curriculum Research & Development Centre.**

Determining Competencies of Teachers at Elementary level, Lahore, 1986, 54+17p.

The competency is defined as "Having enough power, skill, means or talent to do something". Teaching competency is referred to cognitive knowledge of the teachers which entails effects on students learning. The main objective of the study was to develop an inventory of competencies suitable for PTC/CT level teachers and to provide guide-

lines for preparing norms for teacher training institutions for making admissions and also to identify the strengths and weaknesses of the working teachers. The sample was randomly selected which included, heads of the institutions, supervisors, education experts and teacher educators. On the basis of analysis of data a final list of competencies was prepared. It was expected that the list of competencies developed would help in decision making about the development of teacher education programmes at Elementary level.

Curriculum Research and Development Centre,
Evaluation of English Language Teaching Programme (Survey of Quality of Teachers), Lahore, 1986, 13p.

This is the first part of the Evaluation of English Language Teaching programme. The purpose of the survey was to identify the qualitative aspect of the inputs (working teachers) already allowed to the teaching of English in the schools and identify the factual position of relevance of the working teachers. Another purpose of the survey was to ascertain the causes of falling standards in the teaching and learning of English at middle and secondary levels. All districts of the Punjab were included in the sample and keeping in view economy of time, material, manpower and money, six schools from each districts were taken. Work load of the teachers was found very high in urban schools because of overcrowding. The component of In-service training also needs serious attention.

Curriculum Research & Development Centre,
Evaluation of English Language Teaching Programme (A
survey of schools, Teachers & Environmental Conditions),
Lahore, 1986, 60+26p.

The purpose of this second phase of the study was to evaluate the middle stage English Language Curricula with reference to the textbooks, teacher preparation, teaching strategies adopted by the teachers, pupils attainment in various aspects of teaching the language and school environment. Three separate instruments were developed for the collection of data. Twelve schools having representation of male, female and rural, urban were included in the sample. Valuable findings had been recorded and it was expected that results of the study would help in purposeful planning for effective teaching of English Language.

Farooq, R. A.

A comparative study of the Effectiveness of Problem-Solving Approach and Traditional Approach of Teaching Social Studies to Secondary School Students (Unpublished Doctoral Dissertation) Lahore: Institute of Education & Research, University of the Punjab, 1980, 173p.

This study was designed to compare the effectiveness of problem-solving approach and traditional approach as teaching strategies for imparting instruction in the subject of social studies. The experiment was conducted on 9th class students of a secondary school in Dera Ismail Khan. The major objectives of the study were: to find out the relative effectiveness of problem-solving approach and traditional

approach with regard to overall achievement, acquisition of factual information, development of reasoning and development of critical thinking; and to see the difference between treatment effects for the students of high and low intelligence.

The findings of the study revealed that problem-solving approach was equally effective for the students of low as well as high intelligence. The study is expected to be helpful in planning for effective teaching strategies for the students.

Farooq, R. A.

Planning and Development of Effective and purposeful pre-service and in-service programmes of teacher training institutions in Pakistan, Islamabad, Academy of Educational Planning and Management, 1983, 23p.

The study was intended to get the opinion of the school supervisors regarding the effectiveness of the prevalent teacher training programmes to help in planning the pre-service and in-service training courses according to the objectives of education and national requirements. It was a pilot study and the only male and female supervisors of Abbottabad District were included in the sample. A comprehensive study on "Problems and Prospects of Teacher Education in Pakistan" is in progress by the same researcher.

Farooq, R. A.

Development of a Structure of Education Service in Pakistan Islamabad: Academy of Educational Planning and Management, 1983, 84p.

The teaching profession in Pakistan has declined in terms of its social status and prestige which consequently deprived

the education system of the good quality of teachers. The study was aimed at identifying the problems responsible for making the profession least attractive and to recommend the ways and means to overcome these problems and to suggest the reforms in the structure of Education Service. A questionnaire was developed and information/data were gathered from teachers of primary and secondary schools; Colleges and Universities; Educational Administrators, supervisors and planners were also included in the sample.

On the basis of analysis of data useful recommendations were made in respect of qualification of teachers, pay, recruitment procedure, promotion, In-service training, incentives, social status etc. On the basis of recommendations the Researcher has proposed a structure of Education Service for different cadres.

Farooq, R.A.

Comparative Study of Pre-Primary Education in Different Asian Countries, Islamabad: Academy of Educational Planning and Management, 1985, 46p.

Pre-primary education is one of the important links between early childhood and elementary education. In Pakistan this particular aspect has not developed to the extent as in other countries of the Asian Region. The study has attempted to highlight the present international scene regarding pre-primary education in selected Asian Countries. In the light of the experiences of these countries and keeping in

view the peculiar conditions of Pakistan, the researcher has recorded some recommendations to be helpful for the planners to design and formulate a practicable and comprehensive programme of pre-primary education for the country.

Farooq, R. A.

Structure and Organization of National Education Institutions in Pakistan - A case study, Islamabad: Academy of Educational Planning and Management, 1985, 52p.

The case study on structure and organisation of National Education Institutions in Pakistan was assigned by the UNESCO Office at Paris. The terms of reference provided by the sponsoring agency were further elaborated into a questionnaire and the same was mailed to the institutions included in the study. On the basis of data collected the scope of the study was confined to the areas of Curriculum Development; Training of Teachers, educational administrators, curriculum planners and researchers and material production. Some of the major problems identified in the structure and functions of these institutions were those of communication, coordination of activities, support services, finance and the feedback mechanism. Recommendations recorded in the study can be helpful in future policy making.

Ghafoor, Abdul,

Background Study on Technician Education Policy Formulation in Pakistan, Islamabad: Academy of Educational Planning & Management, 1984, 30+84p.

The study was undertaken on the request of the Colombo Plan Staff College for Technician Education, Singapore. The instruments developed by the CPSC were administered to the officials at national and provincial level. Two officials at national and eight at the provincial level were selected. Seven Principals of Polytechnics/Colleges of Technology were interviewed. It was revealed that they did not have adequate insight either in the National Education Policy or in the Sixth Five Year Plan. For this reason, filling of the instruments at institutional level was altogether dropped. The author has simply reported the findings on the basis of interviews and document analysis.

Ghafoor, Abdul,

Development of Human Resources Population, Manpower and Employment Policies in Pakistan, Islamabad: Academy of Educational Planning and Management, 1984, 99p.

This study was carried out for MARGA Institute Colombo and was presented in a conference at Kathmandu by the author. It provides an insight into demographic aspects of the population and the attempts made for the promotion of education to ameliorate the lot of people. The most significant aspect of the study is how Pakistan can benefit from other countries of the region and how it can collaborate and provide assistance to them.

✓ Ghafoor, Abdul,

The Effects of New Trends in Educational Financing on the Plan Objectives: Equity, Quality and Efficiency - A Case Study on Pakistan, Islamabad: Academy of Educational Planning & Management, 1984, 61p.

Carried out as a case study for UNESCO, Regional Office, Bangkok so as to find out the elements of equity, quality and efficiency in education system of Pakistan, the study highlights the problems associated with quantitative expansion of education, especially in the context of element of equity which adversely affects qualitative improvement of the existing system.

Ghafoor, Abdul,

Content of General Education in Relation to Occupational Training in Pakistan, Islamabad: Academy of Educational Planning and Management, 1985, 54+1-Xp.

The study was sponsored by UNESCO, Bangkok. It was based on personal observations and interviews of the author with the teachers and students of the technical training centres in Punjab and N.W.F.P. It provides useful information about the subjects taught at the primary and Junior secondary level. It also provides perspective regarding the gaps between education system and the world of work.

Ghafoor, Abdul.

Innovative Experiences in the Optimal use of Financial Resources for Education in Pakistan - Islamabad: Academy of Educational Planning and Management, 1985. 72p.

The study was conducted on the request for UNESCO Regional Office Bangkok. The author has identified numerous innovative experiences/experiments and selected those which have relevance with the promotion of literacy and functional education i.e. Experimental Pilot Project Integrating Education in Rural Development (EPPIERD), quantitative expansion of primary education by setting up of Mosque schools under Special Priority Development Programme; qualitative improvement of Primary Education through improved inputs under the World Bank Fourth Education Project; and Agro-technical Education introduced at the secondary level. The report is expected to be helpful in allocating financial resources to various sub-sectors of education.

✓ Hussain, Malik Mohammad.

Study of Primary School Teachers Competence in Science, Lahore: Institute of Education & Research, University of the Punjab, 1985, 22+24p.

Keeping in view the importance of the fact that teachers should be very competent in the content of science this study was aimed at

studying primary school teachers' competence in science. A multiple choice objective test was specially prepared and administered on a sample of 250 teachers attending an in-service course at various centres. The analysis revealed that, in general, the level of understanding of the science content by primary school teachers appeared to be very low. Female teachers were found to be better to some extent in understanding the content of science as compared to the male teachers. The study can hopefully help in planning better teacher training programme for science teachers.

Institute of Education and Research Cell, Allama Iqbal Open University.
Evaluation of the Agro-technical and Vocational Scheme of Education (In collaboration with the Ministry of Education, Curriculum Wing), Islamabad, 1982. 90p.

The purpose of the study was to carryout evaluation studies on implementation of Agro-technical education scheme and the effectiveness of its curriculum with a view to review improvement for future strategies. The study was delimited to: (a) Provincial and Regional Implementation Units; (b) Federal Government Schools located within the Federal Capital Area; and (c) Schools in Azad Jammu and Kashmir. A set of proformas and a questionnaire were designed for the collection of data. The Research Team has reported the findings and valuable recommendations for effective implementation of the scheme.

Institute of Education and Research Cell, Allama Iqbal Open University.
Analysis of Literacy Materials for Adults. (Sponsored by Literacy
& Mass Education Commission) Islamabad, 1983, 79p.

This study covers sixteen booklets produced by some of the major organisations engaged in the work of adult education. This is the preliminary draft of analysis. The analysis has been done by experienced educationists who are actively engaged in the adult education programme launched by the Allama Iqbal Open University. They have field experience of adult education and have profound awareness of the needs of adults in a literacy and functional education programme. It is hoped that necessary insight will be derived from this analysis to streamline the adult education programme.

Institute of Education and Research Cell, Allama Iqbal Open University.
The Analysis of Intermediate Curriculum in Foundations of Education, Islamabad, 1983, 107p.

The study aimed at a survey of opinion of different types of personnel relevant to the subject of Education. Two separate questionnaires for teachers and administrators were prepared. In order to supplement the information collected through questionnaires an interview schedule was prepared to discuss the problem with the senior educators. The study was supposed to help the Ministry of Education in finalizing the course in Foundations of Education.

Institute of Education and Research Cell, Allama Iqbal Open University.
Effectiveness of Alternative Methods in Training for Educational
Planning, Management and Information (A Case Study on Pakistan):
In Collaboration with UNESCO, Regional Office Bangkok, Islamabad,
1983, 131p.

The purpose of the study was to compare various methods of training in educational planning, management and information with specific reference to their nature, duration, participation and curriculum. On the basis of analysis of data valuable recommendations have been made regarding the launching of an effective programme of training in the areas of educational planning, management and information.

Institute of Education & Research, University of the Punjab.
Dropouts in Primary Schools of the Punjab, Lahore, 1978.

The study was conducted to investigate the dropout rate in the province alongwith major factors causing the high rate of dropout resulting in wastage of our limited resources. The study has investigated the problem in detail and remedial measures have been suggested to minimize the dropout rate.

It is a sample study. 96 boys and girls primary schools have been selected randumly from three Districts i.e. Bahawal Nagar, Gujranwala and Kasur. Teachers, parents and dropouts were also interviewed to study the problem in depth. Different factors causing dropout have been recorded in the findings.

Jatoi, Haroona.

Status of Female Education in Pakistan, Islamabad: Academy of Educational Planning and Management, 1986, 75p.

The study aimed at analysing the various statistical profiles and reports on Women Education in Pakistan. It also attempts to identify the key factors affecting Women Education in the Country with a view to suggesting ways and means for quantitative expansion and qualitative improvement of Women Education.

Kalim, M. Siddique and Rashida Talmiz.

Primary School Curriculum Evaluation, Lahore: Curriculum Research and Development Centre, 1979. 233p.

Curriculum Development and revision is a continuous process. Any significant change in the curriculum has to be thoroughly evaluated so as to improve it further on the basis of research findings. This study was under-taken to make the summative evaluation of the curriculum in the subjects of Urdu, Social Studies, Islamiyat, Maths and Science for classes I-V. Six instruments were developed for administering on students teachers, parents and supervisors. On the basis of analysis of data the findings have been recorded and recommendations have been made for the achievement of objectives.

Khawaja, Sarfraz.

Primary Education in Pakistan and other Asian Countries, Islamabad: Academy of Educational Planning and Management, 1985, 123p.

This study was undertaken on instruction of the National Development Group. The purpose was to identify the strategies for quantitative expansion as well as qualitative improvement at the primary level. The study identifies a number of

strategic areas which need to be covered for pragmatic planning, effective implementation and efficient management of primary education.

Khawaja, Sarfraz.

Promotion of Girls Education in the Context of Universalization of Primary Education, Islamabad: Academy of Educational Planning and Management, 1985, 66p.

The study was conducted for UNESCO Regional Office Bangkok, and has attempted to identify areas which need priority attention both by the public and private sector for qualitative improvement and quantitative expansion in the sector of female primary education. The study has also described certain innovative projects undertaken for the improvement of primary education in the past.

Literacy and Adult Education Department, A.I.O.U.
Final Evaluation Report of Integrated Functional Education Project Bhit Shah Sind, Islamabad, 1984, 45p.

It is an evaluation report of the Integrated Functional Education Project at Bhit Shah, Sind. It covers the aspects of organization, Field Staff, Project processes; assessment of needs, instructional programme syllabus etc. This is a comprehensive evaluation which will certainly help in improving such programmes in operation at different places.

Malik, Said Rasul and Mirza Tauhiduddin Ahmad.

A Study on Dropouts in Primary Schools in Pakistan: A sample survey, Islamabad: Academy of Educational Planning and Management, 1985, 105p.

The study was conducted on the initiative of the National Development Group of the APEID, UNESCO. The study aimed at assessing the status of Class-I and its impact on the overall drop-out in Primary Schools in Pakistan. It was a sample survey to find out the factual position of Class-I in primary schools. A simple proforma/questionnaire was developed to collect specific background data. Ten Districts were randomly selected as sample and 80% primary schools in Urban - Rural areas were visited by the Research Team. The findings of the study seem to be helpful in planning for physical facilities, teacher training and minimizing the drop-out factors in the primary schools of Pakistan. The Researchers did not record any recommendation in this respect.

National Education Council.

Primary Education Improvement: Desired Measures, Islamabad, 1986, 225p.

This document has been prepared by a research team under the leaderships of Secretary, National Education Council, Dr. M. A. Bhatti. The document contains a critical appraisal of the statistics already in circulation. The issues like universalization of Primary Education, Primary Schooling or Literacy Approach; Financing of Primary Education, Female Primary

Education; Curriculum; Textbooks; Teacher Training; Administration and Organization; Supervision etc. have been fully discussed analytically and on the basis of this critical appraisal several innovative approaches have been suggested for the improvement of Primary Education in the Country. The report also contains latest statistics about the primary education.

N.W.F.P. Board of Technical Education.

Evaluation of Agro-technical scheme of studies introduced in N.W.F.P. FATA and Northern Areas Schools, Peshawar, 1980, 25+17p.

The purpose of this study was to carry out evaluation studies on implementation of Agro-technical scheme and effectiveness of Agro-technical curriculum in N.W.F.P. and FATA in terms of the stated objectives. The procedure adopted for evaluation of the scheme was based on three strategic steps i.e. collection of information; judgement based on the information collected and decision based on the judgement made.

N.W.F.P. Board of Technical Education.

Survey of Current Class Room Testing Practices in Poly-technic, Vocational and Commercial Institutions in N.W.F.P. Peshawar, 1980, 14+4p.

The study was aimed at trying to answer the key-questions such as: What are the most effective testing practices? Which particular form of test is practiced more than the other? What improvements can be made in the class-room testing practices? It was a sample survey, randomly selected and

two questionnaires were developed for the collection of data.

Rashid, Mohammad.

An Investigation into the Effectiveness of Distance Teaching in Primary Teachers Orientation Course, Islamabad: Department of Teacher Education, Allama Iqbal Open University, 1985, 84p.

The evaluation of the course was undertaken to find out the success and short-comings of the course. The study was expected to enable the University to improve its services to students. Some of the findings will no doubt be applicable to other courses of the University. It is hoped that this study will give better insight into the effectiveness of PTOC as well as various issues involved in the system of distance education.

Research and Statistical Centre, Allama Iqbal Open University.
Effectiveness of Media: Radio and Television in Distance Education System, Islamabad, 1984, 155p.

This study was conducted to assess the effectiveness of radio and television programmes prepared and presented for the support of various courses and suggest measures for their improvement. The data for the study was based on the information, observations comments and suggestions received from those students who were registered and had passed one or more courses of Allama Iqbal Open University during four semesters i.e. April 1982, October 1982, April, 1983 and October 1983. Valuable recommendations, based on the analysis of data, have been recorded at the end of the report for the improvement of radio and television programmes of the University.

Research and Statistical Centre, Allama Iqbal Open University.
 A Feasibility Study on Photography: A New Functional
 Course in Distance Education, Islamabad, 1986. 15p.

The purpose of this study was to determine the feasibility for introducing a course on photography in the content of open learning system of Allama Iqbal Open University. The sample of 1138 students, 783 male and 355 female, was drawn randomly from the enrolment of April 1984, semester. A questionnaire was developed for the collection of data. On the basis of findings it was recommended that it would be feasible to introduce a course on photography.

Talmiz, Rashida.

Development of Activity Based Method of Teaching Pakistan Studies in Over Crowded Class Rooms at the Secondary Level, Lahore: Curriculum Research and Development Centre, 1982, 87p.

The purpose of the study was to assess the effectiveness of the activity based method over the traditional method of teaching in over crowded classes in developing cognitive abilities and promoting positive attitudes. The study was conducted on the sample of eight schools (four boys and four girls) divided into experimental and control groups. Study material was distributed before the experiment started. Useful recommendations have been recorded on the basis of analysis of data.

United Consultants Limited.
 Survey of Primary Education in Selected Districts (Sponsored
 by Planning & Development Division) Lahore, 1984, 217+192p.

The present survey of Primary Education in Selected Districts was Commissioned by the Planning and Development Division with the objective of obtaining detailed information about the coverage of primary education in selected under-developed districts of the country. It is a diagnostic survey aimed at providing information about the wide range of factors influencing sectoral performance. The survey covered all the schools imparting primary education in selected less developed districts. These districts were: Jhang, Bahawalnager, Mianwali and Mozaffargarh from Punjab; Kachhi and Lasbela from Baluchistan; Bannu and Mansehra from N.W.F.P.; and Jacobabad and Thatta from Sind. The report has been organised in two volumes. The first volume consists of the main report containing a review of the data presented mainly on the basis of the provincial and overall samples. Corresponding details for each of the sample districts are included in the tables given in the statistical Appendix in the second volume.

Zia, Muhammad Arif.
 Evaluation of the Operating Process of Urdu Course No.302.
 Islamabad: Literacy and Adult Education Department, Allama
 Iqbal Open University, 1984, 50p.

The study was designed to know the strong and weak points of Urdu Course No.302 for Intermediate Classes of the University. A sample of 339 students was drawn randomly out of a population

of 1356. A questionnaire was developed in consultation with the Head of Urdu Department. The students expressed generally, a good opinion of the course and few changes were recommended in the light of the responses received.

The present survey of Primary Education in Selected Districts was commissioned by the Planning and Development Division with the objective of obtaining detailed information about the coverage of primary education in selected under-developed districts of the country. It is a diagnostic survey aimed at providing information about the wide range of factors influencing primary education. The survey covered all the subjects imparting primary education in selected areas developed districts. These districts were: Bahawalpur, Multan and Muzaffargarh from Punjab; Karachi East and Karachi West from Sindh; Faisalabad from West Punjab; and Hyderabad, Karnal and Meerut from U.P. and Rajasthan and Uttar Pradesh. The report has been organized in two volumes. The first volume contains the main report containing a review of the data presented mainly on the basis of the provincial and overall samples. Corresponding details for each of the sample districts are included in the tables given in the statistical Appendix in the second volume.

Dr. Muhammad Ali,
Evaluation of the Operating Process of Urdu Course No. 202,
Liaqat Ali Khan Urdu Education Department, Aligarh
Muslim University, 1984-85.

The study was designed to show the strong and weak points of Urdu Course No. 202 for intermediate classes of the University. A sample of 1356 students was drawn randomly out of a population

SECTION - II**DETAILED DESCRIPTION OF SELECTED STUDIES**

The following three studies have been selected for comprehensive and detailed description in the light of Guidelines/Terms of Reference given by UNESCO Regional Office, Bangkok:

1. Training and Employment of Teachers.
2. Demand and Supply of Primary and Middle School Female Teachers in Pakistan (for the period 1981-90)
3. Quality of Input and Output of Technical and Engineering Institutions in Pakistan.

CRITERIA FOR SELECTION

Choice of career is one of the most vital decisions in a person's life. The terms and conditions of a career determine one's prospects and opportunities in life. In view of the far-reaching effects of career on future life, youngmen naturally have a tendency to compete for careers with higher pay, vaster powers, greater prestige and better prospects. As a result of this tendency intelligent and competent people join careers in administrative, diplomatic, police, defence, medical, legal, judicial and engineering services. It is generally observed that the teaching career is the last choice of the people. Thos who fail to get these coveted jobs become un-willing entrants into the teaching profession.

The teaching profession has declined in terms of its social status and prestige which consequently deprived the education system of the good quality of teachers. It is generally agreed that the quality of teacher training has direct bearing upon the education system of the country. Pakistan, at present, is confronted with the problem of shortage of properly qualified and adequately trained teachers. This is rather more serious in the case of female teachers. In addition to other factors intensifying the problem social constraints hamper

the continuous demand and supply of competent female teachers especially for rural areas.

Rapid economic growth calls for a system of manpower and training to raise productivity. The trend of economic and social progress and general tempo of development in the developing countries also demand that special emphasis be placed on technical and vocational education. The field of technical education includes industrial technical education offered in polytechnics and technical/engineering colleges to train technicians and supervisory personnel in order to serve the needs of the society.

Keeping in view the importance of the areas of teacher training and technical/vocational education, three studies have been selected for detailed description. Out of these three, two are related to teacher training (with emphasis on employment-demand and supply) and the third one is concerned with the status of technical education in the country.

The study at S.No.1 is a survey study aimed at appraising the training and employment of school teachers during the Fifth Plan period. It was undertaken with a view to ascertain the extent of teachers' employment in general and to determine the average time lag between their graduation and appointment in particular.

The study on "Demand and Supply of Primary and Middle School Female Teachers in Pakistan" has been listed at S.No.2. The demand for female teachers is far greater than the teachers being produced by the Teacher Training Institutions. The findings of the study are expected to help in minimizing the acute shortage of female teachers in the country.

The study at S.No.3 was conducted on the request of Planning and Development Division, Government of Pakistan. The main purpose of the study was to actually determine the quality of input and output of the technical and engineering institutions as a result of drainage of trained technicians and engineers into the middle eastern countries creating scarcity of these personnel in Pakistan.

STUDY NO. 1

All of the three studies mentioned above were commissioned by the Government agencies in order to have accurate data and propose new strategies to meet the shortage of trained and skilled manpower for the country. The results of these studies are definitely going to be utilized by the working groups appointed for the preparation of Seventh Five year Plan. These results would help in setting achievable targets.

Training Division,
Government of Pakistan, Islamabad
1986 - 117-106 P.

Sponsoring Agency:

INTRODUCTION

The teacher occupies a pivotal position in the education system. To have efficient and competent teacher is a major problem for the Pakistan schools. The present study is being undertaken with a view to finding out an effective teacher training programme in developed countries. The objective of this study is to find out the various steps taken in the USA, UK, West Germany, Japan, USSR, etc. in the inter-annual period. The present study is undertaken with a view to finding out an effective teacher training programme in developed countries. The objective of this study is to find out the various steps taken in the USA, UK, West Germany, Japan, USSR, etc. in the inter-annual period. The present study is undertaken with a view to finding out an effective teacher training programme in developed countries. The objective of this study is to find out the various steps taken in the USA, UK, West Germany, Japan, USSR, etc. in the inter-annual period.

In order to supervise the training and employment of school teachers during the VII Five year plan, the Planning Division, Government of Pakistan, entrusted this study to the Centre for Applied Economic Studies, University of Pakistan with the terms of reference given in the following lines:-

STUDY NO. 1

Title of the Study: Training and Employment of Teachers.

Researchers: Centre for Applied Economic Studies, University of Peshawar.

Sponsoring Agency: Planning Division, Government of Pakistan, Islamabad 1986. - 127+106 P.

1. INTRODUCTION

The teacher occupies a pivotal position in the education system. To have efficient and competent teacher is a major problem the Pakistani Schools were facing; are facing; and, perhaps will be facing unless an effective teacher training programme is developed. The importance of better teacher training is further justified by the major shifts made by the Fifth Five year Plan in the intra-sectoral priorities. The new order of priorities was heavily tilted in favour of primary education to give 100% coverage to 5 years' old boys by the final year of the Plan in order to lay the foundation of universal primary education. Such programme of expansion also requires a corresponding expansion in the number of, and training programme for teachers.

In order to appraise the training and employment of school teachers during the Fifth Plan period, the Planning Division, Government of Pakistan entrusted this study to the Centre for Applied Economic Studies, University of Peshawar with the Terms of Reference given in the following lines.

2. TERMS OF REFERENCE

The purpose of the study is to appraise the training and employment of school teachers during the Fifth Plan period. The study should have the following three aspects:

i) Utilization of Training Facilities

The study should try to appraise the utilization of the training facilities for primary and secondary school teachers during the Fifth Plan. This aspect of the study would deal with enrolment capacity, number of applicants with different levels and quality of academic background, number accepted, number actually enrolled and the number of graduates at each of the teacher training institutions during the year 1978-82. The above data should be broken up by sexes, and level of training (P.T.C., C.T., B.Ed.), specialization where applicable (teaching of English, Science etc).

ii) Employment

A second aspect of the study should be the number of fresh appointments made in primary and secondary schools during each of the plan year and its break-up into sexes, category (primary, vernacular trained) level of academic qualification of teachers employed in each category, training status, etc. The year of graduation of the newly appointed teachers should be compared with the year of appointment of teachers of different levels to determine the average time lag between graduation and appointment

iii) Impact of Teacher Residences and Availability of Female Teachers.

A third aspect of the study should be the study of the impact of construction of female teachers

residences in rural areas on the availability of female teachers by segregating data in respect of female teachers between areas with and without female teachers.

3. OBJECTIVES OF THE STUDY

The study aims at:

- i - making an appraisal of the training facilities provided to the primary and secondary school teachers during the plan period (1978-83) in terms of the utilization of such facilities;
- ii - ascertaining the extent of teachers' employment in general and determining the average time lag between their graduation and appointment in particular; and
- iii - assessing the impact of the residential facilities provided for female teachers on their employment in schools in the rural areas.

4. METHODOLOGY

In view of the nature of assignment, and in the light of the "Terms of Reference" of the study the methodology adopted assumed four operational forms:

- i) Collection of relevant information from the concerned departments/organizations;
- ii) Development of suitable research instruments for the collection of requisite data;
- iii) Collection of data through census and sample survey; and
- iv) Processing and presentation of the data.

4.1 Research Instruments

Four sets of questionnaires were designed and got approved by the Planning Division for the collection of data. A brief description of these questionnaires is given below:

- Questionnaire No.1 was developed to obtain information on enrolment capacity of the institution, number of applicants, number of those who were actually admitted and number of graduates.

- Questionnaire No.2 deals with the recruitment of the trained teachers in the public and private educational institutions.

- Questionnaire No.3 was designed to elicit information from a sample of trained teachers on the level of training; their employment; their views on the training programme and the adequacy of facilities being provided in the training institutions.

- Questionnaire No.4 was designed to ascertain the impact of residential facilities on the employment of female teachers in the rural areas.

4.2 Sample

A sample of 273 trained teachers was randomly selected from the various districts of the four provinces with a break-up of: Lahore-147(54%); Karachi and Hyderabad - 75 (27%); Peshawar - 33 (12%); and Quetta - 18 (7%).

4.3 Plan of the Report

There are two volumes of the Report. Volume - I contains the main body of the Report whereas Volume - II contains the Statistical Appendix to the study. Volume - I is further detailed as : the introductory chapter followed by three chapters corresponding to the three aspects of the assignment, viz. Utilization of Training Facilities, Employment, and Impact of Teachers' Residences on the availability of Female Teachers; and Chapter-V contains the main conclusions of the study, followed by annexures.

5. CONCLUSIONS

The analysis of data leads to the following conclusions:

1 - Utilization of Training Facilities:

The overall enrolment capacity of the Teacher Training Institutions sustained a general upward trend in all the provinces. The sex-wise distribution shows that the enrolment capacity remains tilted in favour of the male institutions.

There has been a well sustained increase in the case of J.V./P.T.C. and C.T. level of training.

The total number of applicants increased sizably over the Plan period. Male applicants remained dominant but they were closely followed by the females. A study of the ratio of capacity utilization by levels of training shows that excepting M.Ed., and to a certain extent B.Ed., also, there has been a considerable under utilization of capacity. Inquiry into the number of teachers who completed their training shows a fluctuating position on the male side with gains on the female side. In terms of the final output, capacity utilization has been much better in the case of females than in the case of males.

A bulk of the teachers are found in the age group of 18 to 38 years. The percentage of female trained teachers is higher in the younger age groups whereas the percentage of male teachers is higher in middle-age groups. It also came to the light that the majority of teachers opt for Arts subjects followed by specialization in Science.

2. - Employment of Trained Teachers.

The study shows that there has been an upward trend in the employment of trained teachers. As between the provinces the largest increase took place in Sind. The greater number of trained teachers got their employment after receiving their training.

The distribution of employment by type of schools reveals that the largest absorption took place in the government/public schools. Private schools (both registered and un-registered), absorbed a little less than 25% of the trained teachers.

As regards the gap between training and employment it has been found that more than half of the teachers find employment within one year of their training while more than three-quarters of them are absorbed within a period of three years.

3 - Impact of Teachers' Residences on the Availability of Female Teachers.

The number of schools provided with residences has increased considerably. The ratio of filled-up posts to those sanctioned, although slightly higher in schools equipped with residential facilities, is not substantially different. Does this show that the provision of residential facilities has no or insignificant impact on the staffing pattern of teachers in these areas? In prima facie

it appears that Teachers' residences have no impact on the availability of female teachers in the rural areas.

APPRAISAL:

The study was undertaken as a result of a contract between Centre for Applied Economic Studies and Planning and Development Division, Government of Pakistan. Pakistan is confronted with a problem of shortage of trained teachers particularly at the primary stage. The results of the study are going to be utilized by the Working Group on Teacher Training constituted for the preparation of Seventh Five Year Plan. The Group will be in a better position to recommend strategies for effective decision making and policy making in the area of teacher education in the country.

Impact of Teachers' Residences on the Availability of Female Teachers

The number of schools provided with residences has increased considerably. The ratio of girls to boys in these schools, although slightly higher in schools equipped with residential facilities, is not substantially different. Does this show that the provision of teacher housing has no or insignificant impact on the staff composition of teachers in these areas? In other words...

STUDY NO. 2

Title of the Study: Demand and Supply of Primary and Middle School Female Teachers in Pakistan (for the period 1981-90)

Researcher: Dr. M. Maqsood Alam Bukhari

Publisher: Allama Iqbal Open University, Islamabad.

Sponsoring Agency: Ministry of Education, Government of Pakistan, Islamabad, 1984, 186 P.

1. INTRODUCTION

The study aimed at analysing prevalent data regarding the primary and middle school female teachers in Pakistan and to make projections for their demand and supply for the period 1981-82 to 1990-91. The study is a part of research component of the Third Education Project, Ministry of Education, Government of Pakistan. The objectives of the study were as under:

1. To make projections of the demand of primary and middle level female teachers in Pakistan for the years 1981-82 to 1990-91.
2. To determine the implications of training female teachers for primary and middle level of education in Pakistan.
3. To give future considerations for the proper supply of teachers to meet the teacher demand each year of the projection period.

2. SIGNIFICANCE OF THE STUDY

Importance of a study regarding the demand and supply of teachers at the primary and middle levels of education for realistic planning of education of girls in classes I to VIII can hardly be over emphasized. The previous experiences indicate that inadequacy of data on teachers has resulted in shifting frequently the targets of universal primary education for girls. Other related factors have equally contributed to this situation.

The findings of this study may assist planners and educators at federal and provincial levels to better plan elementary education for girls in Pakistan.

Low budgetary allocations for education sector and particularly the teacher education programmes might have been partly due to the fact that future requirements were not accurately estimated. This study may be helpful in providing approximately accurate estimates of the demand and supply of female teachers for the primary and middle level of education in Pakistan for the period 1981-82 to 1990-91, on the basis of which teacher education at this level may be re-oriented accordingly.

3. METHODOLOGY

The method used in this research was based on the Asian Model developed by UNESCO. However, a number of amendments were made in the formulas to fit them in the circumstances of Pakistan.

Planning teacher education in Pakistan for the period of ten years was not an easy task. It was, therefore, decided by the researcher to divide the whole work into separate sections indicating the demand and supply of primary and middle level female teachers for the years 1981-1982 to 1990-91 separately for each province.

For the purpose of reporting, the research material was divided into six volumes:

- Volume - I : Introduction, Significance and Methodology.
- Volume - II : Demand of Female Teachers in the Punjab.
- Volume - III : Demand of Female Teachers in N.W.F.P.
- Volume - IV : Demand of Female Teachers in Sind.
- Volume - V : Demand of Female Teachers in Baluchistan.
- Volume - VI : Province-wise supply of Female Teachers in Primary and Middle Schools in Pakistan for the years 1981-82 - 1990-91.

The process of making projections for demand and supply of female teachers consisted of various phases which have been discussed as under:

3.1 Document Analysis:

Relevant documents were studied and analysed to have access to requisite information. Projections for the female primary and middle school teachers can be made on the basis of enrolments of students in the girls primary and middle level of education for the previous years upto 1981-82, teacher-pupil ratio in the schools and the fractions of the teachers leaving the profession due to retirement, resignation or any other reason. These data were collected from the records maintained by various teachers training institutions and government agencies like the national and provincial Bureaux of Education, Directorates of Education and Planning and Development Cells of the Education Departments of provincial secretariats.

3.2 Projections

In order to make the projections for population, enrolment and teacher requirements the following formulas were applied by the researcher:

A : Predicted School-Age Population

For the purpose of the study the future sizes of female school-age population for primary and middle schools were basically derived from population projections for the period 1981-1991.

B : Enrolment Projections

Enrolments for each year from 1981 to 1991 were calculated by using the 1981-82 enrolment as base data and school age population. A linear increase in the enrolment ratio was assumed from 1981 to the target year. The following formula describes the methodology for enrolment projections:

$$E_t = e_t p_t$$

Where

E refers to full-time enrolment.

t refers to time reference, yearly.

e refers to enrolment ratio.

p refers to school-age population.

C : Teacher Requirements

Following formula was used for estimating the number of female teachers required for teaching in primary and middle schools for the period 1981-1991:

$$T_t = \frac{E_t}{S}$$

- T refers to total number of teachers
S refers to pupil-teacher ratio

The value of E was known from enrolment projections.

D : Additional Teachers Requirements

The following formula was used for this purpose:

$$NT_t = T_t - (1-a) T_{t-1}$$

Where

NT_t - refers to additional teacher requirements.

a - refers to fraction of total number of teachers leaving the profession for all reasons.

3.1 Supply of Teachers

Supply of female teachers was estimated by adding together the stock of acceptable teachers and the inflow/s with 1981 as the base year. The number of acceptable teachers were determined by the total number of teachers serving a stage. The inflow for the period 1981-1991 was determined on the basis of the average intake of the teacher training institutions engaged in under-graduate teacher training for the years 1977-81 and their optimum size.

4. FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Province-wise main findings, conclusions and recommendations have been presented by the author of the study. However, some general recommendations have also been recorded separately. In the following pages the summary of the findings, conclusions and recommendations is being given:

4.1 Punjab

- (1) Population projections of 5 to 9 year old girls show that in Punjab there will be approximately 3805 thousand and 3965 thousand girls of this age group during the years 1986-87 and 1990-91.
- (2) Taking enrolments of 1981-82 as base and gradually improving the retention rates year-wise enrolment projections were made for the period 1982-83 to 1990-91. The class wise enrolment in 1990-91 for class I to V were estimated to be 814, 654, 575, 507 and 435 thousand respectively with a total estimate of 2984 thousand girls in classes I to V in 1990-91 which comes to 75 percent of estimated age-group of 5-9 year old girls in Punjab during the year 1990-91.
- (3) In order to teach the projected enrolments of girls in classes I to V, it was estimated that the total teacher requirement will be about 48700 and 74600 at the teacher-pupil ratio of 1:40 during the year 1985-86 and 1990-91 respectively whereas the additional teachers required during these years were calculated to be about 6250 and 8600 in 1985-86 and 1990-91 respectively.
- (4) By the end of 1984 there were seven Elementary Colleges of Education for Women, one normal school and three teacher training units attached with the girls high schools in the Punjab. Maximum intake capacity of each of the eight GEC/normal school is 200. Even if the maximum output of these teacher training institutions is doubled, the surplus teachers who will not be able to get training will be about 5300 in 1986-87 and about 7800 in 1990-91.

- (5) Under the circumstances it can be, safely, concluded that there will be need to add some more Colleges to accommodate this growing demand of the teachers.
- (6) It is, therefore, recommended to establish, at least, two new T.T.I's for women each year during 1987 to 1990 in case the targets of 75 percent and 25 percent participation rates are to be achieved at primary and middle school levels in Punjab by 1990-91.

4.2 N.W.F.P.

- (7) Population projections of 5-9 year old girls show that in N.W.F.P. there will be approximately 849 thousand and 884 thousand girls of this age during the year 1986-87 and 1990-91.
- (8) Taking the enrolment of 1981-82 as base and assuming that the retention rate in class II to V will gradually improve during the projection period, year-wise enrolment projections were made for the period 1982-83 to 1990-91. The class-wise enrolments projected for classes I to V in 1990-91 were calculated to be 181, 160, 132, 103 and 81 thousand respectively with the total of 659 thousand girls in classes I to V in 1990-91 and this figure is estimated to be 75 percent of the relevant age-group.
- (9) It was estimated that in order to teach these projected enrolments, the total teacher requirements at the teacher-pupil ratio of 1:40 will be about 16500 in 1990-91 and the additional teacher requirement will be 2400 female teachers in that year.

(10) By the end of 1984 there were only three Colleges of Education for women in N.W.F.P. with the maximum output capacity of 600 graduates per annum. It can, therefore, be concluded that in N.W.F.P. there will be a surplus of 1260 teachers in 1986-87 and about 2800 teachers in 1990-91 will not have the facilities to get training in these colleges unless some additional facilities of teacher training are added.

(11) It is, therefore, recommended that:

- a) The output capacity of existing colleges of Education be doubled by adding the required facilities and,
- b) New teacher training institutions be established in each of the years 1986-87, 1988-89 and 1990-91.

4.3 Sind

(12) Population projections show that there will be 1432 and 1493 thousand girls of 5-9 year old in 1986-87 and 1990-91 respectively. The enrolment of girls in Classes I to V in 1981-82 were 135, 97, 76, 65 and 54 thousand respectively. The total of these enrolments comes to 427 thousand which is about 34 percent of the relevant age-group.

(13) Taking the enrolment of 1981-82 as the base figure and assuming that the dropout rates in classes II to V will be gradually controlled, the enrolment projections were made. It was estimated that the enrolment of girls in classes I to V in 1990-91 will be 1117 thousand which will be 75 percent of the relevant age group in that year.

(14) In Sind there were ten Colleges/Institutes of Education providing teacher education for elementary classes in 1984. The maximum output capacity of these institution was 2000. It can, therefore, be safely concluded that in 1990-91 in Sind there will be about 1700 teachers who will have no training facilities in case no new teacher training colleges are established.

(15) It is, therefore, recommended that from the year 1986-87 to 1990-91 there will be need to establish a new elementary college of education of 300 output capacity for the preparation of female teachers every year. This demand will increase because there is a growing trend of employing female teachers in boys primary schools in Karachi.

4.4 Baluchistan

(16) Population projections about Baluchistan show that there will be approximately 246 and 256 thousand girls of 5-9 year age group in 1986-87 and 1990-91 respectively. The actual enrolment of girls in classes I to V in 1981-82 was about 25 thousand which were only eleven percent of the relevant age group in that year.

(17) Taking the enrolment of 1981-82 as the base figure and assuming that special efforts will be made to improve both admission rates and retention rates in primary girls schools in Baluchistan during the projection period, it is estimated that the enrolments of girls in classes I to V will be 52, 48, 41, 29 and 21 thousand respectively in 1990-91. The total of these enrolments in classes I to V comes to 191 thousand which are estimated to be 75 percent of the relevant age group in 1990-91.

(18) In case the teachers are provided to these enrolments at a teacher pupil ratio of 1:40, the total teacher requirement will be about 4800 for classes I to V in 1990-91 whereas the additional teacher requirement will be more than 600 in each of the year during 1987-88 to 1990-91.

(19) In Baluchistan there was only one College of Education for females at Pashin by the end of 1984. The maximum output capacity of this college was 300. It is recommended that an other college of education be established after 1986 in Baluchistan to meet the targets of bringing 75 percent of 5 - 9 age group girls and 25 percent of 10-12 age group girls in the primary and middle schools respectively by 1990-91.

5. GENERAL RECOMMENDATIONS

Besides the province-wise recommendation, (summary already given) the researcher has made some general recommendations as under:

(1) In N.W.F.P. and Baluchistan, the enrolments of girls in classes I to VIII are very low in terms of percentages of the relevant age groups. Special efforts will, therefore, have to be made to achieve the targets in these provinces. For this purpose:

a) Some innovative projects will have to be visualised to attract the girls to the schools. These projects may be in the shape of evening schools, part-time schools or adult centres offering some special and abridged courses.

b) Some mobile type of schools may be started in the rural areas of Baluchistan in order to accommodate the thinly scattered population in the rural areas.

- c) Some campaign needs to be launched to change the attitudes of parents towards the education of their daughters.

(2) In order to supply the required number of teachers in Pakistan, the formal Colleges of Education / Teacher Training Institutions will not be sufficient for the achievement of set targets. It is, therefore, recommended that some crash training programmes like the establishment of teacher training centres/units with the girls high schools be started.

(3) It is also recommended that in order to meet the growing demand of teacher preparation, the facilities provided by Allama Iqbal Open University may be availed to the maximum. For this purpose, the Provincial governments may coordinate their future plans of teacher preparation with the authorities of Allama Iqbal Open University well ahead of time so that the supply of teachers is regulated in time.

APPRAISAL:

Primary and Non Formal Education Wing of the Ministry of Education assigned this study to Allama Iqbal Open University. The Ministry of Education is running the Primary Education Projects sponsored by the World Bank. The problem area is the shortage of Female Teachers in Pakistan Schools. The Researcher has projected the demand and supply of female teachers for primary and middle schools for the period 1981-1990. The study is expected to be helpful in planning for the innovative strategies to meet the shortage of trained female teachers. These results will prove to be helpful in the preparation of Seventh Five Year Plan (1988-93).

STUDY NO. 3

Title of the Study : Quality of Input and Output
of the Technical and Engineering
Institutions in Pakistan.

Researchers : Centre of Excellence in
Water Resources Engineering.

Sponsoring Agency : Planning and Development
Division, Government of Pakistan,
Islamabad, 1986, 137 P.

1. INTRODUCTION

All countries in the world are engaged in development with a view to improve the living conditions of their people, or in other words for the welfare of their society. The scope of 'welfare' may be different according to the level of development already achieved. Some may be striving for providing the basic necessities of life, while others, which are well developed are making concerted efforts on luxuries and conveniences, pooling potential resources for the development of science and technology for collective security and supermacy in world market. Development is, therefore, a never ending process which has to follow a set direction to achieve maximum benefit from a given investment in money, time, human and material resources.

Development encompasses economic and social well being of a society. Therefore, development in any sector is justified either on the basis of the expected economic returns presented in the form of some economic parameters or because of the predominance of some social benefits which can not be transformed into monetary values. Education is one social sector to which monetary values, in terms of cost-benefits, can not be assigned.

The drain of trained technicians and engineers into the middle eastern countries created scarcity of these personnel in the country. This shortage not only affected the quality of education in polytechnic institutions, but also the quality of output from engineering institutions. These institutions, as a matter of fact, should thrive on the industrial work and field experiences so that the technicians and engineers coming out are well equipped with the real life problems that they face during their professional career.

The focus in the last two decades, however, has been on expansion without consolidation. As a result numerous polytechnic institutes, Colleges of Technology and Engineering Institutions were established without adequate infrastructural facilities for teaching practical work and research. The students passing out of the Polytechnic Institutes are theoretically not better equipped than desired in vocational institutes and even less in work experience. Many vocational institutes on the other hand, have become production units of paper diplomas for skilled workers needed in oil producing countries. The Engineering graduates are no better than those having B.Tech. degree in various technologies from Colleges of Technology. This deterioration of standards is, in fact, prevalent at every level of our educational system. However, it is regrettable in technical and engineering education, because of its major contribution in all sectors of our national development.

The planning agencies have not only to set targets, but also lay procedures and guidelines for achieving these targets. This can be achieved by intimate frequent dialogue between the planning and executing agencies so that both ends know the technical, social and economic limitations under which a project has to be implemented and then managed later on. In setting the plan targets, the planning agencies must not only have an accurate data based on intake and enrolment of various educational institutions, but also on the needed infrastructural

- iii) Categories of admission and the merit in each category.
- iv) Mode of admission.
- v) Criterion of fixing of seats for various technologies.
- vi) Mode of selection of nominated candidates
- vii) Admission criterion
- viii) Enrolment in each technology (1978-82)

3.2 Institutional Facilities

- i) Distribution of recurring expenditure
- ii) Laboratory staff
- iii) Student-teacher ratio in various levels of education.
- iv) Number of laboratories and laboratory space.
- v) Unit expenditure/student in various institutions.
- vi) Requirements of practical training
- vii) Liaison with the industry/government agencies

3.3 Output

- i) System of evaluation
- ii) Year-wise output in various technologies
- iii) Quality of output in various technologies
- iv) Average number of years taken by students to complete diploma/degree requirements.

3.4 Demand and Supply Projection

- i) Demand of technologies
- ii) Output of first and second divisioners at secondary school level.

- iii) Output of first and second divisioners at the Intermediate level.
- iv) Relation between increase in population and the increase in students passing Secondary and Intermediate Examination in first and second divisions.
- v) Data on age group of 15-16 & 17-18 years.
- vi) Projection of intake rate in various provinces, institutions in relation to output at Secondary and Intermediate level, and if possible relation to demand in the industry/government agencies.
- vii) Data on development priorities and the investment made.

4. DATA COMPILATION

A great deal of vital information was collected by the Survey Team covering almost all aspects prescribed under the terms of reference earlier. This information was tabulated institution-wise for various technologies in each province and was finally added for all institutions in the country.

The report of the study includes an overview of the present state of affairs in technical and engineering institutions with a view to highlight shortcomings and educational deficiencies in general. The chapter on overview is followed by the chapters on Institutional Facilities; Planning and Development Strategies; Quality of Input; Quality of Output; and Summary of Conclusions.

5. SUMMARY OF CONCLUSIONS

The Researchers have reported the following major conclusions drawn from the analysis of data:

- 1- There should be a regular system of educational data collection and transmission to the planning agencies so that policy decisions could be taken either to remove bottlenecks or to adjust the plan targets

- 2- The education at the Polytechnic level should be so planned that a diploma holder should be able to understand the ideas put forth by the engineer and the capable of communicating them to the skilled worker, to translate them into practical shape.
- 3- The training of skilled workers in vocational institutes should be more practical-oriented in specific trades.
- 4- The experience already gained by a B.Tech student during the pre-admission period should not be counted towards requirements of B.Tech. degree. This is essential because the new experience is required to develop in a student the capability to hold more responsible position than that of a Sub-engineer/Chargeman/Foreman.
- 5- The ratio of engineers to technologists should be 4:1. Therefore, intake of the Colleges of Technology in different provinces should be 25 percent of the intake of engineering institutions. The number of diploma holders should be ten times the number of engineers.
- 6- Four skilled workers are required for each Diploma holder or forty for each engineer.
- 7- At present our educational system appears to be a closed system concerned primarily with the evaluation of education in relation to quantitative input and output only. The technical and engineering institutions must certainly take some responsibility for the current miss-match between education and employment. Insofar as these institutions do not prepare youth for the real world and create aspirations which can not be fulfilled, they are to be blamed for the problem of educational unemployment and under-employment and consequent unrest among the youth. There is, therefore, an immediate need to have reliable data on the expected employment growth that the economic development during the Sixth Five Year Plan will generate.
- 8- Three fundamental factors are claimed to have contributed to the mis-match between the interest of our youth and the appropriateness of a technology or level of education: