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CURRICULUM DEVELOPMENT AND RESEARCH IN NWFP
A STATUS REPORT AND AN ORGANIZATIONAL
STUDY

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FOREWORD

This report has been prepared for the Primary Education Development Program for the NWFP under USAID Contract No. 319-0497-C-00-0546 with the Academy For Educational Development.

The first draft was prepared in December 1990. It was revised in March 1991, in Washington D.C. during the evacuation. Upon return to Pakistan, the report was submitted to Miss Bhatti, the Chairman of the Curriculum Bureau for feedback. The report was revised in October 1991 to incorporate Miss Bhatti's comments.

I wish to thank Wade Robinson, Chief of Party for the Primary Education Development Program for his suggestions; and I take this opportunity to express my appreciation to the Curriculum Bureau Staff who provided the background information of the Curriculum Bureau organization. In particular, I am grateful to Miss bhatti for her comments which provided insight into needs of the Curriculum Bureau.

This report is intended to provide suggestions for building the capacity and strengthening the capabilities of the Curriculum Bureau Staff to perform functions related to the process of curriculum development.

NWFP
CURRICULUM DEVELOPMENT AND RESEARCH
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CURRICULUM DEVELOPMENT AND RESEARCH

A STATUS REPORT AND AN ORGANIZATIONAL STUDY

1991

EXECUTIVE SUMMARY

One of the primary functions of the Curriculum Bureau is the development of the overall curriculum design for schooling. This process includes evaluation which encompasses field testing the proposed instructional objectives to assess their effectiveness, suitability and feasibility.

Another important component of the process is the selection and preparation of teachers, to perform the delivery aspects of the system; and the training of supervisors who implement and ensure the quality of the system.

The latter function of the Curriculum Bureau, teacher training and supervision, is addressed in a separate study by Richard N. Cowell " Pre-Service and In-Service Teacher Training In NWFP, An Organizational Study and Status Report," Directorate of Primary Education NWFP, Hayatabad.

The present Study will address the functions for which the Curriculum Development Bureau is responsible. At times, it will be necessary to refer to the delivery unit in the system, namely the supervisory and teacher training staff, for the purpose of clarifying the cycle of curriculum development.

The study examines the organization of the Curriculum Bureau with respect to requirements needed for performing the function of curriculum development. Furthermore, it analyzes the problems inherent in the system, and proposes measures to be considered in resolving them.

It is proposed that the Bureau be organized along the lines of the functions involved in the process of curriculum development.

THE PROCESS OF CURRICULUM DEVELOPMENT AND RESEARCH INVOLVES:

- 1) The development of a clear framework of objectives for all curriculum areas, based on an analysis of community needs and the educational priorities of the nation.
- 2) The use of instructional models most appropriate to the objectives and content of the subject under development. This includes exploring alternative models which are useful for developing critical thinking, and problem solving skills needed to function in modern technological world.
- 3) The integration of vertical and horizontal learning experiences, so that one learning experience builds on another. Vertical integration examines the sequence of learning experiences within one subject, while horizontal integration examines learning across the subjects.
- 4) The use of a rigorous system of quality control during development to ensure that content is accurate, up-to-date, and relevant; that the instructional methods used are appropriate to the content and the learning objectives; that the materials are suitable to the developmental levels of the learners for whom they are intended; and that the materials are validated in practice through trial use and revision, and through a rigorous field test before they are disseminated for regular classroom use.
- 5) The inclusion of criterion-referenced tests for each instructional objective. These tests help match instruction to the needs of students; so that they are used as prerequisite checks for review before new materials are presented, as well as mastery checks to determine whether the learner has achieved the specified objectives.
- 6) The design and development of training materials and programs for in-service teachers and supervisors to ensure they are thoroughly prepared to teach the materials as intended. The quality control process will include the evaluation of the training materials designed to implement the curriculum. The validated training materials used in in-service training will provide the materials used to train pre-service teachers.

To perform these functions, the Bureau will have to be staffed by different units each of which is responsible for some function that supports and enhances the efforts of the Bureau to design and develop curriculum.

1) A Development Unit staffed mainly by subject specialists, child development specialists, learning psychologists, and educators.

This Unit will be responsible for the development of curriculum.

2) A Research, Testing, and Measurement Unit staffed mainly by specialists in social sciences trained in research design, testing and measurement.

This Unit will be responsible to validate the developed curriculum by using a rigorous system of quality control.

3) A Resource Unit staffed by a librarian, and information specialists.

This Unit will provide resource materials for the curriculum developers.

4) A Supervisory Unit staffed mainly by teacher training specialists.

This Unit provides the control system of the curriculum development process. It is responsible to design, plan, and implement teacher training, and provide guidance in the use of the materials.

5) An Administrative Unit staffed by an administrative support personnel.

This Unit provides control of the operation by managing finances, personnel records, and maintains the facilities.

STAFFING AND TRAINING:

Staffing and training need careful consideration, in light of the functions that need to be performed.

STAFFING

Developing curricula is a specialized field which requires technical know-how, training, and experience.

In order to staff the Bureau, certain measures need to be considered:

1) Select specialized staff for different functions: developing curriculum, validating the developed materials, training the users, supervising the process of implementation, providing resources, managing accounts, administering the operation etc.

2) Diversify the composition of the staff responsible for curriculum development. In addition, to subject specialists in all areas of the school curriculum, there is a need to include psychologists in development and learning, educators with experience in the field, and teachers on deputation. An effort is needed to upgrade the academic qualification of the primary school staff over a period of time.

3) Reserve some posts for direct hire for permanent Bureau staff, to ensure specialization, training, and experience on the job.

Promotion within the Bureau will have to be considered as a measure to provide continuity within the system.

TRAINING

To strengthen the capabilities of the Curriculum Bureau it will be necessary, for them to become specialized in the required skills for curriculum development. To do so will require both training and experience.

To develop the capabilities of the Bureau staff requires both training and opportunities to collaborate with other professionals and coordinate their activities with other interrelated institutions which share common concerns.

Therefore, training procedures need to consider measures, such as:

- 1) Setting certain entry qualifications,
- 2) Waving age limitation for training,
- 3) Providing training abroad contingent on their remaining in service,
- 4) Motivating the staff to pursue professional development through promotion practices based on merit.

COORDINATION

Finally, the study suggests measures to facilitate coordination between the Bureau and other related organizations:

The Directorates of Primary and Secondary Education,
Users of the curriculum;
The Textbook Board,
Producers of curriculum materials; and
Teacher training institutions,
The delivery system for the curriculum.

These measures include:

- 1) Involving these inter-related institutions in joint ventures, initiated by a higher authority that supervises their activities.
- 2) Relocating the Bureau, or establishing a branch office in the Capital.

BACKGROUND

The Education Policy issued in 1972 - 1980 mandated that the National Curriculum Bureau will have the sole responsibility "to review and up-date the curriculum of all stages of education, including technical and vocational education, to keep them constantly under review and to revise and modernize them at regular intervals. The National Curriculum Bureau will be strengthened and re-organized and curriculum centers will be established and/or developed in each province."

In 1972 the first Provincial Curriculum Bureau was established in NWFP. The Bureau is under the authority of the Federal Curriculum Wing, and the Bureau reports directly to the Provincial Secretary of Education.

RESPONSIBILITIES

The Curriculum Wing of the Federal Ministry of Education has ultimate responsibility for the development of curriculum and teacher training in Pakistan, classes one to twelve. It also assumes the supervisory powers over the Provincial Bureaus of Curriculum and Textbook Boards. The Wing works closely with the Provincial Bureaus on the development and revision of curricula and in the development of guidelines for textbook authors.

When a new or revised school curriculum is desired, the general procedure is for the Curriculum Wing to solicit a draft from the Provincial Bureaus. Subject specialists at the Provincial level prepare their drafts. The Curriculum Wing appoints a panel of Federal and Provincial subject specialists to review and revise the drafts. The revised draft is then sent back to the Provincial Bureaus for their review, feedback and adaptation to the local conditions. Finally, suggestions are returned to the Federal Wing for consideration by a National Committee on Curriculum. The Committee's recommendations are then submitted to the Ministry of Education for final approval.

In collaboration with the Federal Wing, the Provincial Curriculum Bureaus plan, develop, and produce the guidelines for each subject matter area and draw explicit instructions for the preparation of textbooks, and teachers' guides. The Textbook Boards use these guidelines to prepare and produce the textbooks.

In addition, the Curriculum Bureaus are in charge of all pre-service, and in-service teacher training. (Appendix 1)

POSITIONS OF CURRICULUM BUREAU

There are 60 sanctioned posts for the Bureau of Curriculum Development and Education Extension Services in NWFP.

Detail of Sanctioned Posts for Bureau of Curriculum Development and Education Extension Services NWFP are displayed in Appendix 2. While, the duration of term of service for the directors since 1983, as displayed by the Board of Honor in the office of the Bureau, is indicated in Appendix 3.

THE PRESENT STRUCTURE OF THE ORGANIZATION

A survey questionnaire (Appendix 4) was developed to gain more understanding of the nature of the present structure of the organization. Interviews were conducted with the professional staff of the Bureau to determine the following:

- 0 Appointment of staff
- 0 Qualification: education, training, and experience
- 0 Actual duties carried out by the Bureau staff
- 0 Relationship and coordination with other organizations
- 0 Staff Needs
- 0 Budget categories and considerations.

APPOINTMENT OF STAFF

The Provincial Secretary of Education has the authority to appoint the staff of the Curriculum Bureau. The number of the professional staff does not exceed 10, although the sanctioned posts total 60. Two of the posts are allocated to administration, and the remainder to the support staff.

QUALIFICATION: EDUCATION, TRAINING, AND EXPERIENCE

The professional posts comprise of 6 subject specialists, two assistant directors responsible for physical education, and pre-service teacher training respectively, one audio visual aids officer, and one librarian. They are grade 17 level, so that all have B.A. or equivalent and/or B.Ed. Some have in addition M.A. and/or M.Ed. No special training or experience is required.

However, most of them have experience as teachers in Middle or Secondary schools, and practically none of them have primary school experience. Most of them have occupied some supervisory post such as Assistant Subdivision Education Officer (ASDEO), or headmaster of Middle or Senior Schools. The minimum number of years of service of the staff at the Bureau at present, is 6 months, and the maximum number of years of service is 16.

Moreover, the Board of Honor in display at the office of the Bureau indicates that since 1983 most directors of the Bureau did not complete a full year. Their term of service ranged between 18 days and 8 months, with the exception of one director who served for a total of 5 years (4 years at initial appointment, and 1 year before retirement.)

ACTUAL DUTIES CARRIED OUT BY THE BUREAU STAFF

Of the 6 subject specialist staff, only 3 have been involved in some curriculum development in collaboration with some Federal Projects. But, all the staff are involved in teacher training: whether it be pre-service, in-service on long term basis, or orientation training programs on short term basis.

With respect to curriculum development, the subject specialists have been involved in preparation of syllabi and guidelines in their respective areas of specialization for textbook authors. They have prepared teachers' guides mostly for Elementary classes starting with class 4. Only one attempt at preparing teachers' guides in relation to the integrated curriculum for class 1 has been reported.

In addition to the functions mentioned above, there has been a limited effort on the part of the Bureau to be involved in test development.

But there has been a consistent involvement in one form or other in development or evaluation of different innovative projects introduced by the Federal Wing. These projects include adult education, integrated curriculum efforts, evaluation of learning modules developed by the Primary Education Project funded by the World Bank, moral education, population education, Primary Curriculum Reform Project (PCRP) funded by UNICEF, and some studies that examine drop out, and multi grade classes.

In connection with teacher training, the Curriculum Bureau staff administers and supervises Government Colleges of Education for Elementary Teachers (GCETs). They select perspective teachers for PTC and CT training programs. Furthermore, they assume responsibilities for pre-service, in-service, and reorientation training programs.

One of the Bureau staff has reported involvement in evaluating different alternative teacher training programs, such as the school based training in connection to the Agha Foundation.

In short, the responsibilities of the Curriculum Bureau have varied over the years, subject to variation of donor funds in the budget.

RELATION AND COORDINATION WITH OTHER ORGANIZATIONS

The relationship of the Curriculum Bureau with other organizations was explored through interviews.

It would seem natural that the Curriculum Bureau should coordinate their efforts with the Directorates, for which they are drawing syllabi and developing curriculum guides. The Curriculum Bureau maintains no relation with Directorates.

Almost all the professional staff interviewed were not involved at any time with either the Primary or Secondary Directorate.

Coordination between Curriculum Development and Teacher Education would seem natural, but these functions are discrete.

When interviewed, all the Curriculum staff felt that teacher training should be an integral part of their responsibilities.

The relationship of the Curriculum Bureau and the Textbook Board is interdependent in nature, The functions of one body is complemented by the responsibilities of the other.

There is practically no coordination between these two bodies at present.

They perceive a bifurcation of responsibilities:

whereby the Textbook Board is primarily responsible for the development of students materials, and

the Curriculum Bureau focuses on the development of materials for teacher training.

However, the majority of the staff concede that they should be playing a more active role in the preparation and evaluation of student materials.

The development of syllabi and curriculum guides would require trying out the prepared materials in experimental settings, before dissemination. This process requires developing Research and Development capabilities within the system.

The majority of the staff felt a need for training in research techniques.

Normally, criterion-referenced test development is an integral part of the process of instructional objectives development, since it is a tool to measure the attainment of the specified instructional objectives.

Currently the Curriculum Bureau staff is not involved in curriculum evaluation, therefore the Bureau has no input into the development of test items.

When the Curriculum Bureau staff were asked about their involvement in test development, two of the staff only, stated that they have been involved in test development in relation to some projects in the past, but not recently. Three staff members felt that the curriculum Bureau should work closely with the Directorates to develop a pool of tests for the teachers' use at the primary and secondary levels.

STAFF NEEDS:

Almost all the staff appointed to the Curriculum Bureau have come through administrative posts to the job. They receive no training of any sort, they learn about their assignments on the job. Thus, it is natural that they all express the need for training in curriculum development and field based research, and they feel that the training should be conducted abroad in developed or developing countries.

Some staff members have described the job of Curriculum specialist as unattractive, in fact they consider that it is a demotion in comparison to their previous post of headmaster. Therefore, it is no surprise that most have expressed concern over job security in the form of maintaining seniority, promotion, and upgrading.

BUDGET CATEGORIES AND CONSIDERATIONS

The annual budget of the Curriculum Bureau is divided into two main categories:

* Non-Developmental which covers salaries of Curriculum Bureau and Extension Center staff, and is set at 2,791,600 Rs for 1990

* Developmental budget is itemized and set as follows for 1990

0 Pre-service to cover 17 colleges is 17,937,300 Rs

0 In-service Training is 2,200,000 Rs

0 Scholarships for PTC and CT is 3,400,000 Rs

0 Agro-tech is 1,238,050 Rs

0 Purchase of equipment for GCET is 550,000 Rs

0 Physical Education College is 222,420 Rs

0 Repairs of GCET Buildings is 2,195,000 Rs

ANALYSIS OF THE ORGANIZATION

In order to examine the organization of the Curriculum Bureau, it is important to map out:

What functions need to be performed,
What kind of organizational structure is best suited to support these activities.
What kind of staffing is required, and
what kind of training is needed to carry out the job

FUNCTIONS

There are several functions that contribute to the quality of education. These include curriculum development, validation of instructional objectives, provision for a delivery system, namely the selection, and the preparation of teachers, and a system of training teachers on the job to use appropriate methods of delivery efficiently, and to utilize instructional materials effectively.

CURRICULUM DEVELOPMENT

One major function of the Curriculum Bureau is curriculum development.

At present curriculum development is centralized at the Curriculum Wing of the Federal Ministry of Education, with input from the Provinces.

However, curriculum is also a reflection of the aspirations of communities it strives to serve. Therefore, assuming responsibility for curriculum development is as much a Provincial concern as it is a Federal responsibility.

To Maintain balance between these two forces, The Federal Curriculum Wing may consider furnishing the general guidelines and terminal objectives for each stage of schooling, a process to ensure unity within the country. While the Provincial Bureaus supply the interim instructional objectives that are relevant to their community needs, and that eventually culminate in the attainment of the specified national terminal objectives.

Thus, the organization of the Curriculum Bureau will have to provide capacity and capability for the development of curriculum, and the validation of instructional objectives for the improvement of the quality of education.

THE CURRICULUM DEVELOPMENT PROCESS INVOLVES:

DEVELOPMENT OF INSTRUCTIONAL OBJECTIVES

To improve the quality of education , it is important to develop high quality, validated curriculum and instructional materials by:

- 1) Developing a clear framework of objectives for all curriculum areas, based on analysis of social needs and the educational priorities of the nation.
- 2) Using of instructional models most appropriate to the objectives and content of the subject under development. This includes exploring alternative models which are useful for developing critical thinking and problem solving skills needed to function in the modern technological world.
- 3) Integrating vertical and horizontal learning experiences, so that one learning experience builds on another. Vertical integration examines the sequence of learning experiences within one subject, while horizontal integration examines learning across the subjects.

RESEARCH AND DEVELOPMENT

To provide quality in curriculum development, it is important to use a rigorous system of quality control to:

- 1) Ensure that the selection of content is accurate, up-to-date, and relevant.
- 2) Check that the instructional methods proposed are appropriate to the content, and the intended objectives.
- 3) Check that the proposed curriculum is suited to developmental levels of the learners for whom it is intended.

Quality control can be achieved through field testing the proposed curriculum in experimental settings, and revising it based on feedback from the classroom.

The validated curriculum would then be ready to be disseminated in the system.

TESTING

To check whether the intended objectives have been achieved and to monitor learning, it is useful to develop criterion-referenced test items for each specified instructional objective.

These tests are intended to:

- 1) Diagnose difficulties, and help match instruction to the student's learning needs.
- 2) Check whether the student has mastered the materials.

TEACHER TRAINING

1) TRAINING PROGRAMS FOR IN-SERVICE TEACHERS

To ensure that teachers and supervisors are prepared to teach the curriculum as intended, it is necessary to design, and develop training programs for in-service teachers.

Quality control will include the evaluation both of the training materials designed to install and implement the curriculum and the instructional process of the training itself.

2) INPUT TO PRE-SERVICE

The validated training materials used for the in-service teachers will form the materials used to train pre-service teachers.

COORDINATION

The Curriculum Bureau will not only invest in the development of the curriculum, but in the training of teachers and supervisors. Therefore, it will have to develop and maintain a working relationship with:

- 1) The Directorates of Primary and Secondary Education which represent the public officials and the general public, especially parents and teachers who are the prime users of these services.
- 2) The Textbook Board staff who will have to prepare the instructional materials for printing after the curriculum is tested, revised, and validated.
- 3) The appropriate colleges of education, to ensure that the newly developed curriculum and the training procedures that go along with it are incorporated into the teacher preparation programs.

ORGANIZATIONAL STRUCTURE AND FUNCTIONS

Therefore, the structure of the Curriculum Bureau and the functions of the staff will have to be organized to permit the development of high quality curriculum.

The Bureau will be governed by a Director who will oversee all the operations of the Bureau.

Under the Director there will be some major units within the organization. Each unit will be responsible for some function that supports and enhances the efforts of the Bureau to design and develop curriculum.

The office of the Director will also be responsible for planning, and for coordination with other organizations.

THE DEVELOPMENT UNIT

The Development Unit will be comprised of senior subject specialists from various fields of study:

- a) Mathematics,
- b) Science: general science, physics, biology, and chemistry,
- c) Languages: Urdu, Pashto, and English,
- d) Social Studies: Geography and History,

In addition, the Unit will be staffed by Specialists from the field of:

- f) Psychology: preferably with specialization in child development and learning theories,
- g) Education: with specialization in Primary and methodology.

RESEARCH, TESTING AND MEASUREMENT UNIT

This Unit will evaluate the developed curriculum, that is the proposed instructional objectives for the different subject matter areas, through designing and conducting field trials.

The staff of this Unit will be knowledgeable in research design, measurement and evaluation. They will:

- a) Develop test item banks for different subject matter areas,
- b) Design formative evaluation procedures,
- c) Plan field trials,

- d) Help train field researchers,
- e) Supervise data gathering,
- f) Perform statistical analysis of the results, and
- G) Report qualitative evaluations of teacher performance and student achievement.

RESOURCES UNIT

The library will be the materials resource unit. It will provide access to books, periodicals, and other specialized materials such as tapes, cassettes, computer software, tests, and other instructional modules.

THE SUPERVISORY UNIT

This Unit will be the control system of the curriculum development process. It will plan, and implement training programs for in-service teachers and supervisors to ensure they are prepared to teach the materials as intended.

In addition, the supervisors will check the success of the developed curriculum in achieving the intended objectives, through monitoring students' achievement and providing feed back to the curriculum developers to review and revise the new curricula.

THE ADMINISTRATIVE UNIT

This Unit will be the financial controller of the operation. It will be responsible for budgeting, bookkeeping, accounting, personnel, payroll, purchasing, inventory control, and maintenance of facilities and equipment.

COMPOSITION OF THE CURRICULUM BUREAU

To ensure quality, the Bureau will be constantly engaged in the process of Curriculum Development.

Curriculum Development is a full cycle, which starts with planning curricula, implementing the plan which incorporates training the delivery system, and providing control through supervision and evaluation, which in turn guides the process of development, thus starting the cycle again.

Thus, coordination and integration between curriculum development, in-service training, and supervision and guidance, is essential to the process of curriculum development.

HUMAN RESOURCES NEEDED

Human Resources needed to carry out the responsibilities of Curriculum Development are specified according to functions:

1) CURRICULUM DEVELOPMENT

a) Specialists in subject matter areas that hold at least M.A/M.Sc. in various fields of specialization: mathematics, science, social studies, and different languages used in instruction.

This cadre of personnel will be required to have at least three to five years practical experience in teaching.

b) Specialist in Child Development, Learning Theories, and Education form a resource pool. Their knowledge of how and what can children learn at each stage of development is needed in the process of Curriculum Development.

This cadre of personnel would bring to the process their know-how, and provide curriculum developers with insight into the learning process.

This staff is professional, therefore half of them at least would have to be directly recruited as permanent staff of the Bureau.

This would ensure that the Bureau would be staffed by:

- a) Specialized personnel, and
- b) Trained professionals.

Moreover, they would have to be promoted within the Bureau, in order to:

- a) Utilize fully the resources that have been invested in their training, and
- b) Ensure continuity within the Organization.

Other staff could come from the Educational System.

2) RESEARCH AND DEVELOPMENT

Specialists in social sciences who would be trained in research design, research techniques, testing and measurement.

3) MATERIAL RESOURCES

Information Specialists who will provide information resources to ensure that content is accurate, and up-date.

4) SUPERVISION AND TEACHER TRAINING

The process of Curriculum Development or Improvement requires staff that will be able to:

Train teachers in the use of the materials in order to enable them to modify their teaching methods to fit the new materials, and

Provide guidance to the system to able to:

- a) Judge and measure the efficiency and success of the new curricula in achieving the intended objectives.
- b) Determine and record problems facing teachers and students in the use of the new materials.
- c) Monitor student achievement.
- d) Report the results of the field tests to the Curriculum Developers to review the process and revise the curricula.

This cadre of staff will comprise of:

- a) Teacher Educators who will develop a system of identifying teacher training needs.
- b) Staff in place in the System who will be trained to plan and implement a program to evaluate the impact of Curriculum innovations on students' performance, and modify training based on feed back from the field test.

5) ADMINISTRATIVE STAFF

The administrative staff will comprise of a computer specialist, an accountant, secretaries, a technician, guards, janitors, and other support workers.

FOR COMPLETE JOB DESCRIPTIONS AND QUALIFICATIONS SEE APPENDIX 5.

PROBLEMS AND PROPOSED PLANS OF ACTION

1) STAFFING

MANPOWER

The professionals serving in the Bureau are limited in number, and lack the training required to undertake the jobs proposed.

PLAN OF ACTION

Develop a plan of staffing, and phase it over a period of time. Consider in the staffing pattern the following posts:

- a) Subject specialists in all subject matter areas: mathematics, science, social studies, and the various languages used in instruction.
- b) Psychologists trained in Child Development and Learning Theories.
- c) Educators from the field such as: Supervisors and Teachers on deputation who will bring to the process of curriculum development their experience of what and how children learn.
- d) Research staff from the field of social sciences, and testing and measurement.
- e) The educational system in place, can be opted to become partners in the curriculum development process. Their services can be utilized in evaluating the materials, training the teachers on the job, and monitoring the progress of the work.

COMPOSITION OF BUREAU STAFF

Entry point to Curriculum Bureau is currently reserved for grade 17, which excludes the primary school staff.

PLAN OF ACTION

Relax entry level to include the highest grade available in the primary cadre, and require upgrading of primary staff academic qualification phased over a period of time.

2) TRAINING

MOTIVATION

No motivation is provided for training. Curriculum development is a highly specialized field that requires know-how and experience.

OPPORTUNITIES

Provision for specialization in any field, when available, has age limitation.

PLAN OF ACTION

Provide training, and opportunities to pursue in-depth training in fields of specialization, and require courses in the field of curriculum development, child development, primary education, research and development etc.

Motivation to pursue this goal could be linked to upward mobility in the system, by providing promotion on merit basis.

Consider flexibility in age limitation, when providing opportunities for staff training. Staff with long experience on the job, and years before retirement, could be good investment.

3) CONTINUITY

Most staff consider posting in the Bureau as an interim stage awaiting other openings in the system. Few stay long enough to acquire experience on the job.

PLAN OF ACTION

Hire half of the professionals directly as permanent Bureau staff, and promote them within the Bureau in an effort to ensure continuity within the system.

The other half could come from the Education System at large.

Moreover, invest in a plan to train the staff for the specialized tasks, and require, as a condition, commitment of five years of service to permit acquiring experience on the job.

4) LOCATION

Coordination between the Curriculum Bureau and other interdependent organizations is almost non existent, partly due to location at a considerable distance from all other related organizations.

PLAN OF ACTION

Plan to move the Bureau or some section of it to the capital close to the other organizations.

5) COORDINATION

The Curriculum Bureau as an organizational entity is loosely linked to the Federal Government. The Bureau receives directives from the Federal Wing. The Federal Wing acts as a liaison between the Curriculum Bureau, and the Textbook Board.

Furthermore, the Bureau reports to the Provincial Secretary of Education. As a body it is not responsible to any other organization in the system.

PLAN OF ACTION

Plan to create linkages between the Bureau and the other interdependent organizations, namely :

THE PRIMARY AND SECONDARY DIRECTORATES

Users of the curriculum materials.

THE TEXTBOOK BOARD

Producers and distributors of curriculum materials.

TEACHER TRAINING INSTITUTIONS

The delivery system that uses the materials.

6) RESPONSIBILITIES

The responsibilities assigned to the Curriculum Bureau at present exceeds its capacity and capabilities. The Bureau is neither staffed, nor trained to handle curriculum development, as well as teacher training adequately.

Therefore the linkage between curriculum development and teacher training need to be regulated.

PLAN OF ACTION

It would be worth considering bifurcating the two functions of curriculum development, and teacher training.

For discussion of the Pre-Service and In-Service Teacher Training see Richard N. Cowell Organizational Study, Directorate of Primary Education NWFP, Hayatabad.

RECOMMENDATIONS

To develop the capabilities of the Curriculum Bureau staff, and to build up capacity within the organization require time and resources.

Capacity requires staffing units that would assume responsibilities for Curriculum Development, Research and Development, Testing and Measurement, Material Resources, Supervision, and Teacher Training, and Administration.

The process of building capacity has to be phased out over a period of time.

Certain measures that have to be considered in

STAFFING:

1) Develop a plan of staffing that taps different talents, from different fields of specialization.

2) Plan to diversify the composition of the Bureau staff by incorporating specialists in child development, learning psychologists, and educators with field experience.

3) Capitalize on experienced educators by reviewing age limitations in considering training of staff.

4) Provide continuity in the system by reserving some positions for direct hire to fill permanent posts in the Bureau.

This would entail an incentive of providing promotion within the Bureau.

Other posts that are filled from the education system at large, would require meeting certain qualifications: such as specialization in a subject matter area, and experience in the field, or some training or education in the area of curriculum development, or other related areas of specialization.

The process of building the capabilities of the staff requires intensive training. Staffing positions to perform curriculum development and related activities require professional training, technical know-how, and experience.

Certain measures to be considered in

TRAINING

- 1) Provide training opportunities to pursue in-depth training in fields of specialization needed in the area of curriculum development.
- 2) Invest in training the permanent staff of the Bureau, who will form a pool of resources to train others within the country.
- 3) Capitalize on investment provided for training of staff, by requiring, as a condition, commitment from them to serve the Bureau for a certain number of years.

Another measure needed to strengthen the capacity and capabilities of the Bureau is by creating linkages through:

COORDINATION

- 1) Create linkages between inter-related institutions such as:
 - The Directorates of Primary and Secondary Education,
Users of the developed curriculum;
 - The Textbook Board,
Producers of the instructional materials; and
 - The Teacher Training Institutions,
The delivery system.
- 2) Coordination may be achieved through establishing lines of communication and joint ventures initiated at the higher levels of authority.
- 3) Facilitate communication between the Bureau and other institutions, by relocating the Bureau, or some section of it, such as establishing a branch office in the Capital.

APPENDICES

APPENDIX 1

The following is the list of male and female Elementary Colleges in NWFP:

MALE ELEMENTARY COLLEGES IN-SERVICE TRAINING INST.

- 1) Govt Col of Ed for Elm Tchrs (Male) Haripur
- 2) Govt Col of Ed for Elm Tchrs (M) Thana (Malakand)
- 3) Govt Col of Ed for Elm (Male) Barikot
- 4) Govt Col of Ed for Elm Tchrs (M) Darosh (Chitral)
- 5) Govt Col of Ed for Elm Tchrs (Male) Peshawar
- 6) Govt Col of Ed for Elem Tchrs (Male) Mathra Pesh
- 7) Govt Col of Ed for Elem Tchrs (Male) Kohat
- 8) Govt Col of Ed for Elem Tchrs (Male) Karak
- 9) Govt Col of Ed for Elem Tchrs (M) Ghoriwala Bannu
- 10) Govt Col of Ed for Elem Tchrs (Male) D.I. Khan
- 11) Govt Agro-Tech Tchrs Trng Cent Gulbahar Colony Peshawar
- 12) Ed Ext Cent, Abbottabad
- 13) Govt Col of Physical Ed Doaba (District Kohat)
- 14) Govt Col of Ed for Elem Tchrs (Male) Insv Peshawar

FEMALE ELEMENTARY COLLEGES IN-SERVICE TRAINING INST.

- 1) Govt Col of Ed for Elm Tchrs (Fem) Dargai
- 2) Govt Col of Ed for El T (F) Khawazakhela (Swat)
- 3) Govt Col of Ed for Elm Tchrs T (F) Dabgari Gate, Pesh
- 4) Govt Col of Ed for Elm Tchrs (Female) Kohat
- 5) Govt Col of Ed for Elm Tchrs (Female) D.I.Khan
- 6) Govt Col of Ed for Elm T (F) Insv Charsada Rd Pesh

LIST OF COLLEGES UNDER CONSTRUCTION

Govt Col of Ed for Elem Tchrs (Male) Swabi

Govt Col of Ed for Elem Tchrs (Female) Mansehra

APPENDIX 2

- 1) Director (1) BPS 20
- 2) Deputy Director (1) BPS 18
- 3) Subject Specialists (6) BPS 17
- 4) Assistant Director (2) BPS 17
one for Pre-Service and
one for Physical Education
- 5) Audio Visual Aids Officer (1) BPS 17
- 6) Librarian (1) BPS 17
- 7) Budget and Accounts Officer (1) BPS 16
- 8) Superintendents (2) BPS 16
one for accounts and
one for estab. files
- 9) Steno Grapher (1) BPS 15
- 10) Steno Typists (7) BPS 12
- 11) Assistants (1) BPS 11
- 12) Projectionist (1) BPS 11
- 13) Senior clerks (10) BPS 7
- 14) Junior clerks (11) BPS 5
- 15) Drivers (3) BPS 4
- 16) Naib Qasid (8) BPS 1
- 17) Lab attendant (1) BPS 1
- 18) Chowkidar (1) BPS 1
- 19) Sweeper (1) BPS 1

APPENDIX 3

The Board of Honor on display in the director's office in Abbottabad indicates the names and dates of service of Curriculum Bureau directors.

The directory dates back to 1 - 6 - 1983
The following names and service dates are displayed:

DIRECTORS CURRICULUM BUREAU

1) Mr. Gauhar Rahman Abbasi	1-6-1983	12-5-1987
2) Mr. Maqbul Ur Rahman	13-5-1987	2-12-1987
3) Mr. Fzl Ur Rahman Khan	3-12-1987	21-12-1987
4) Mr. Mohammad Rafiq Khan Jadoon	22-12-1987	7-8-1988
5) Mr. Maqbool Ur Rahman	8-8-1988	26-10-1988
6) Mr. Gauhar Rahman Abbasi	27-10-1988	

APPENDIX 4

1) SIZE

- a) How many posts are sanctioned?
- b) How many posts are filled? and how many Curriculum Bureau staff are females?
- c) What criteria is used in the appointment of staff, if any?
- d) What is the job description of each sanctioned post?
- e) What is the job description of each filled post?
- f) What is the grade level of each filled post?

2) FORMATION

- a) Under whose jurisdiction does the Curriculum Bureau fall?
- b) By what authority is the Curriculum Bureau governed? law, policy, or practice?
- c) If law or policy, is it possible to obtain a copy of it in English?

If practice, elaborate.

3) BUDGET

- a) What is the annual budget of the Curriculum Bureau?
- b) What are the main budget categories?

4) REQUIRED RESPONSIBILITIES

- a) What is the function of the Curriculum Bureau?
- b) Has this function changed over the years?

5) TRAINING AND EXPERIENCE

- a) Is there any training requirement for the current posts?
- b) If so, what is the training requirement?
- c) Is there any experience requirement for the current posts?

- d) If so, what is the experience requirement?
- e) What is the work history of each filled post?
- f) How long has each current staff filled the post?

6) ORGANIZATIONAL STRUCTURE

- a) Who does the Curriculum Bureau report to in an organizational sense?
- b) Who has the power of appointment?
- c) Who supervises the staff in their job?

7) ACTUAL RESPONSIBILITIES

- a) What do the staff actually do?
- b) What is the difference between what the staff actually do, and what they should do?
- c) What does the Curriculum Bureau need to carry on its responsibilities?
- d) Do the staff actually carry on curriculum development work?
- e) If the staff do not, who does?
- f) When was the actual curriculum development work done last?
- g) By whom was the actual curriculum development work done?
- h) How was the actual curriculum development work done?

8) TRAINING AND EXPERIENCE NEEDED

- a) Do any of the staff have primary school experience?
- b) What kind of training should be provided prior to curriculum development work?
- c) What kind of experience should be provided prior to curriculum development work?

d) Should training be provided for Curriculum Bureau staff, will they agree to serve in the Bureau for five years?

e) What kind of provision would the Curriculum Bureau staff like to see before they commit themselves to long term service?

f) Should there be provision to pull out a cadre of primary and/or elementary personnel to perform specific jobs?

9) RELATION AND COORDINATION WITH OTHERS

a) Should the Curriculum Bureau fall under the administrative structure of the newly created Directorate of Primary Education?

b) Who should supervise their activities?

c) Who should the Curriculum Bureau report to?

d) Should the Curriculum Bureau be involved in Teacher Training?

e) If so, should they be involved in pre-service, in-service, both or other?

f) Should the Curriculum Bureau be affiliated with the Textbook Board?

g) If so, what should their responsibilities be?

h) Should the Curriculum Bureau coordinate its activities with the Research and Development Department in the newly created Directorate?

j) If so, in what ways can the Research and Development department support the staff in curriculum development work?

k) Should the Curriculum Bureau coordinate with the authorities who develop primary and tests?

l) If so, in what ways should they be involved?

APPENDIX 5
JOB DESCRIPTIONS AND QUALIFICATIONS

POSITION:

DIRECTOR

RESPONSIBILITIES

- 1) Guides the systematic review of the national educational goals.
- 2) Formulates a plan to convert the broad goals into measurable objectives. These objectives are then organized in scope and sequence to ensure vertical and horizontal integration.
- 3) Directs the process by which the staff can identify instructional materials needs, prioritize them, and initiate activities to fulfill priority needs.
- 4) Administers the Bureau development processes which produce curriculum and instructional materials.
- 5) Selects personnel and evaluates performance
- 6) Ensures cost-effective field testing and evaluation of the Bureau product and training.
- 7) Maintains close cooperation with appropriate units within the Secretariat of Education to achieve coordination with related agencies.
- 8) Maintains updated materials on curriculum and instructional development, media application, and training evaluation.

QUALIFICATIONS

- 1) Successful experience in teaching, some of which is in the Primary level.
- 2) Administrative experience in many systems, including supervision of a school, or a district, or a division.
- 3) Experience in in-service education, or university pre-service education.
- 4) Professional rank.
- 5) Proficient in at least one foreign language preferably English.
- 6) Professional international experience such as participation in international conferences or organizations.

POSITION:

SENIOR SUBJECT SPECIALIST

RESPONSIBILITIES

- 1) Directs the team to create and develop curriculum in the area of their specialization.
- 2) Supervises team members in planning and developing curriculum.
- 3) Participates in determining development priorities and schedules.
- 4) Regulates the flow of work.
- 5) Ensures that vertical and horizontal integration are achieved in the development of curriculum.
- 6) Ensures that the products generated are field tested.
- 7) Maintains the flow of information to the appropriate groups.

QUALIFICATIONS

- 1) Minimum five years of successful teaching experience some of which is in the Primary level.
- 2) Managerial experience.
- 3) Professional rank.
- 4) Proficient in at least one foreign language, preferably English.
- 5) Effective analytic and writing skills.

POSITION:

SUBJECT SPECIALISTS

RESPONSIBILITIES

- 1) Assist in creating, selecting, adapting, and developing curriculum in the subjects of specialization,
- 2) Prepare curriculum drafts and reports,
- 3) Participates in research projects and field testing as part of the curriculum development process,
- 3) Reviews and revises curriculum objectives based on feedback from the trial testing in the field.

QUALIFICATIONS

- 1) Specialists in subject matter areas that hold an M.A./M.Sc. in a field of specialization: mathematics, science, social studies, or any of the different languages used in instruction.
- 2) A minimum of three to five years of teaching experience.
- 3) Effective analytic and writing skills.

POSITION: EDUCATORS, PSYCHOLOGISTS:DEVELOPMENTAL & LEARNING

RESPONSIBILITIES

- 1) Provide training for curriculum developers in adjusting curriculum to different levels of development.
- 2) Provide quality control in the development of curriculum for different levels of ability for slow learners, students with learning disabilities, and bright and gifted students.
- 3) Provide analysis and recommendations to the curriculum developers related to the suitability of methodology to content.
- 4) Provide training in learning theories as it relates to curriculum development.
- 5) Provide training in developmental psychology as it relates to evaluation.
- 6) Participate in the curriculum development process.
- 7) Participate in evaluating instructional materials,

QUALIFICATIONS

- 1) Advanced degree in field of specialization.
- 2) Successful experience in the application of the theories of learning and developmental psychology.
- 3) Successful teaching experience for a minimum of five years, some of which in the Primary School.

POSITION: RESEARCH AND DEVELOPMENT SPECIALIST

RESPONSIBILITIES

- 1) Designs and implements evaluation of curriculum materials, training of trainers programs, pilot teacher training programs and various support materials.
- 2) Plans and implements field-testing of curriculum materials.
- 3) Plans formative evaluations of curriculum materials and training programs.
- 4) Constructs tests and plans testing cycles as an integral component of curriculum development.
- 5) Provides and interprets evaluation results to development teams.
- 6) Participates in the definition of objectives to ensure that the intended objectives are stated in measurable terms.

QUALIFICATIONS

- 1) Specialist in formative and summative evaluation, with substantial experience in field testing as well as criterion referenced testing.
- 2) A professional degree in evaluation and testing.
- 3) A minimum of three to five years teaching experience, some of which is in the Primary level.
- 4) Communication and interpersonal skills.

POSITION:

TRAINING SPECIALIST

RESPONSIBILITIES

- 1) In collaboration with the Development Unit, the training specialist designs and implements training of trainers programs for disseminating the curriculum materials produced by the Bureau.
- 2) Designs, and pilot test teacher training programs for use by the trainers.
- 3) Designs trial testing of prepared teacher training programs.
- 4) Plans and assist colleges of education to incorporate successful training programs in pre-service teacher education programs.

QUALIFICATIONS

- 1) A minimum of five years successful teaching experience.
- 2) Successful experience in designing, implementing, and evaluating in-service training programs.
- 3) Organizational capability and interpersonal skills.
- 4) Familiarity with media useful in training programs.

POSITION: MATERIALS RESOURCE SPECIALIST

RESPONSIBILITIES

- 1) Organizes and supervises the Materials Resources Unit, and ensures the flow of resources to the curriculum developers.
- 2) Plans, administers, and evaluates the available resource system as it supports the development efforts of the Bureau.
- 3) Ensures the availability of the resources in a timely manner to facilitate the development process.
- 4) Maintains systematic communication with national and international agencies to upgrade, and update the resources available in the Unit.

QUALIFICATIONS

- 1) Training in library science.
- 2) Experience in library administration and services.
- 3) Management and interpersonal skills.
- 4) Effective writing skills.
- 5) Fluency of a foreign language, preferably English.

ADMINISTRATIVE STAFF

1) POSITION: COMPUTER SPECIALIST

RESPONSIBILITIES

- 1) Identifies and establishes availability of information sources and computerized data-bases to support curriculum development.
- 2) Plans, implements and evaluates a systematic process of computerizing data needed by the Bureau.
- 3) Communicates with other major national agencies to establish networks for information access needed by the development staff.
- 4) Acquires and maintains instrumentation needed to access external data-bases.
- 5) Uses and maintains computer software needed to facilitate the functions of the Curriculum Bureau.
- 6) Trains the staff of the Bureau to access data, and use computers.

QUALIFICATIONS

- 1) Specialist in computer programming.
- 2) Successful experience in computer programming, including identifying, creating, and accessing data-bases.
- 3) Experience in teaching is desirable.
- 4) Organizational and interpersonal skills.
- 5) Communications skills.
- 6) Competence in one foreign language, preferably English.

2) POSITION: ADMINISTRATIVE STAFF

RESPONSIBILITIES

AN ACCOUNTANT to perform the following functions:

- a) Budgets, and maintain accounts of Projects,
- b) Disburses finances under the control and guidance of the Director, and
- c) Maintains records of accounts of different Projects.

AN ADMINISTRATIVE STAFF to:

- a) Handles administrative matters, and
- b) Maintains records of the Bureau's functions.

A TECHNICIAN to:

- a) Responds to requests of Curriculum Developers to ~~produce~~ materials,
- b) Provides maintenance support for the equipment in the Bureau,
- c) Advises the Responsible Bureau Staff on needs, purchases, and service support to ensure ready use.

OTHER SUPPORT STAFF to:

- a) Arrange for functions of the Curriculum Bureau,
- b) Provides care of the facility.

QUALIFICATIONS

- 1) Each staff position should be specialized in the area of her/his responsibilities.
- 2) Successful work experience in the area of responsibility,
- 3) Organizational skills, and
- 4) Interpersonal skills.