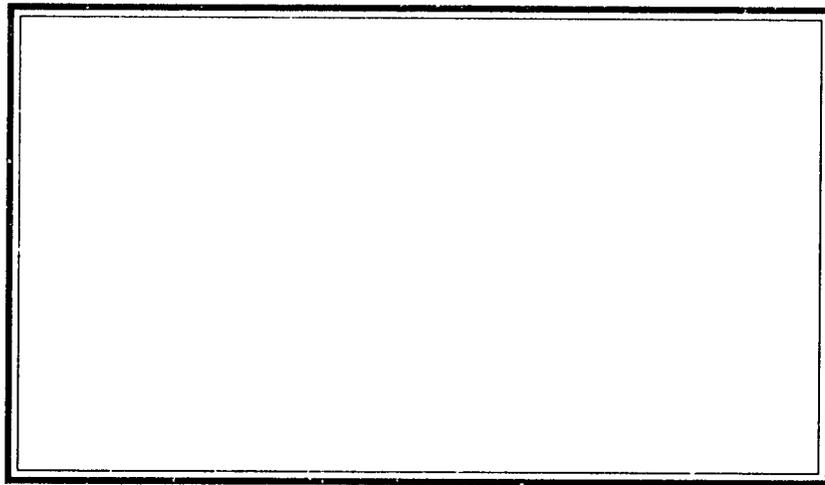


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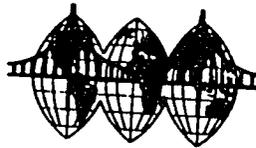
**CONNECTEDNESS:
A MISSING CONCERN IN EDUCATION SYSTEMS**

The Example of Curriculum Development in Pakistan

Andrea Rugh and Ahmed Nawaz Malek

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The BRIDGES Project includes educators, researchers, planners and policy makers committed to improving opportunity and quality in schools in Burundi, Egypt, Indonesia, Jordan, Pakistan, Sri Lanka and Thailand. The goal of their collaborative effort is to identify policy options that will increase children's access to schooling, reduce the frequency of early school leaving and repetition, improve the amount and quality of what is learned, and optimize the use of fiscal and educational resources.

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ABSTRACT¹

Education systems that are inherited from an alien cultural experience often have difficulty in responding to change. As time passes, their components increasingly come to function independently, concentrating on maintaining the forms and the procedures of the past. This is not to say that they fail to operate as systems. Rather, explicit goals and intentions instead of focusing the program, become submerged in a bureaucratic tangle of rote procedures. The system that takes over is one energized by implicit cultural understandings of what education should be.

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CONNECTEDNESS: A MISSING CONCERN IN EDUCATIONAL SYSTEMS
The Example of Pakistan

1. INTRODUCTION

Newly independent countries, especially those which were handed fully formed education systems at the time of independence, often find that their systems are incapable of coping constructively with certain kinds of change. This is especially true of the kind of change that requires improvements in the quality of education. Parts of the system work independently and often in contradiction to each other, and the system has few mechanisms whereby innovations can be assessed and improved on a continuing basis.

The purpose of this paper is to call attention to this lack of connectedness between parts of the education system, which lies at the heart of current inefficiencies. There are a number of reasons why this problem may have arisen: first, resources are usually limited in newly independent countries, and this encourages investment in tangible and familiar "mortar and brick" solutions and restricts risk-taking. Second, most of these inherited systems are "revealed" systems; that is, they inherited fully functioning rules and procedures that those who now run them were not involved in developing. Day-to-day operations consist of keeping present structures as close to the original as possible and change is managed through replication of original forms. Meaningful change, if it occurs at all, is expected to come in similar "revealed" form from top bureaucrats. These bureaucrats often are not in office long enough nor are they politically interested in or rewarded for addressing systemic problems.

Third, bureaucrats who have little awareness of the purposes of the institution or the way the parts are designed have no way of knowing when it has accomplished its mission, where it went wrong along the way, or even that these considerations are important criteria for evaluating its effectiveness. Over time the parts of the education system become deficient at carrying out the functions for which they were designed. Day-to-day operations lack the fine-tuning mechanisms that would help them perform their functions better. The officials do not have the conceptual overview nor the authority to readjust the whole system to new purposes. Attention focuses on content and form, and neglects operation and connection

between parts leading to specified ends. The concept of system is little understood and little valued.

An illustration of these problems is found in the process of curriculum development in Pakistan. Curriculum development requires a series of formally connected steps moving toward well-focused ends. In Pakistan, as in many countries that have concentrated on the quantitative goals of increasing enrollments, systems for improving the quality of education programs have languished in recent years: Administrators blame the poor quality of programs on inadequately trained teachers, lack of resources, and insufficient facilities, but much of the problem is instead a consequence of poor management and limited institutional capacity to deal with "scientifically" organized improvement.

The following descriptive report was written as background for a study of classroom practices. The report describes the national goals for primary education in Pakistan, and the curriculum as represented in general and specific subject objectives, as well as unit level content². The report briefly describes the process by which published curricula are translated into textbook content and provides examples from grade five Urdu, the language of instruction, and mathematics subject texts³. Finally, the report gives some examples of the kinds of tests that are used to assess student achievement. Those who construct the tests concentrate on the subject content of the textbooks, thus rewarding the teachers who teach this content closely, and the students who learn to memorize skillfully. Many general goals and objectives of the education program are ignored because no one has specifically translated them into textbook content, or because they are difficult to implement under classroom conditions in Pakistan.

Though the purpose of the report was descriptive and non-analytical, it nonetheless demonstrates some of the problems noted earlier--that is, a lack of formal connection between

²In Pakistan, documents containing these goals and objectives are the only source of explicit direction about the purposes of the educational program. These documents, however, have limited circulation, and by the time the textbook writers and teachers receive their instructions, they have been reduced to topical chapter headings.

³The original paper gives examples of textbooks for grades one, four and five in more detail and reproduces the full texts of tests given at the grade five level.

the components of the education system; implementation that becomes increasingly divorced from the original intent; an inability in the system to assess its goals or make modifications in its program; and a general lack of operational concern with the purposes for which the curriculum was intended. With each step in the process of curriculum development, from textbook development, to teaching the curriculum in the schools and assessing the results, the process moves further away from implementing formal goals and falls back increasingly on the teachers' implicit cultural understandings of what education systems should do.

2. CURRICULUM DEVELOPMENT AND IMPLEMENTATION IN PAKISTANI PRIMARY SCHOOLS

Generally speaking, in an efficient centralized education system, national education goals outline broad objectives while the curriculum or syllabus converts these goals into specific and measurable objectives. Textbooks provide the content support for implementing the objectives of the national system. Without broad goals the educational system remains unfocused. Without measurable objectives, it is difficult to evaluate the success of the system. Without the structure that the textbooks provide, the execution of the educational goals tends to be uneven and heavily dependent upon the strengths and weaknesses of the teaching force. Without assessment instruments that refer back to objectives, it is unclear whether the specific objectives of the system are being met. In an ideally functioning system, all the components of the educational program articulate well in support of the goals determined by policy-makers.

2.1 National Goals

The national goals for the educational system of Pakistan are found in a document entitled "The National Education Policy and Implementation Program", published in 1979 by the Ministry of Education in Islamabad. The main goals of the educational program are to:

- (a) foster in the hearts and minds of the people of Pakistan in general, and students in particular, a deep and abiding loyalty to Islam and Pakistan, and develop in them a living consciousness of their spiritual and ideological identity, thereby strengthening a unified outlook in the people of Pakistan based on justice and fair play;
- (b) create awareness in every student that he, as a member of the Pakistani Nation, is also a part of the universal Muslim Community (Ummah) and that he is expected to make a contribution, first, towards the welfare of fellow Muslims inhabiting the globe and, second, to help spread the message of Islam throughout the world;
- (c) produce citizens who are fully conversant with the Pakistan Movement, its ideological foundations, history and culture so they feel proud of their heritage and display firm faith in the future of the country as an Islamic state;
- (d) develop and inculcate, in accordance with the Koran and Sunnah, the character, conduct, and motivation expected of a true Muslim;
- (e) ensure equal educational opportunities to all citizens of Pakistan and provide minorities with adequate facilities for their cultural and religious development, enabling them to participate effectively in the overall national effort;
- (f) impart quality education and, through training and retraining, enable people to realize their potentialities and live up to their capacities; and develop their creative and innovative faculties building upon their capabilities to effectively manage social, natural and productive forces, consistent with the value-system of Islam;
- (g) provide an acceptable level of functional literacy and fundamental education to all citizens of the country, particularly the young, irrespective of their faith, caste and creed, in order to enable them to participate productively in the total national effort;

(h) create interest and love for learning and discipline among the youth and ensure that every student realizes that education is a continuous and lifelong process;

(i) promote and strengthen scientific, vocational and technological education, training and research in the country and use this knowledge for socioeconomic growth and development, thereby ensuring a self-reliant and secure future for the nation.

(1979: page i-ii, minor editing)

Overall, the national goals of the educational system are directed toward producing graduates who will contribute--as good citizens and good Muslims--to the welfare of the nation. The educational system is charged with developing the specific skills and character traits in students that will lead to those ends. Though broad and abstract, these goals are no different from those generally outlined for a nation's education program. A common next step in curriculum development is for these general goals to be translated into more specific grade and subject level objectives by a national agency responsible for curriculum development.

2.2 Institutions in Curriculum Development

In Pakistan the Curriculum Wing of the Ministry of Education, which developed out of the National Bureau of Curriculum and Textbooks established in 1967, is responsible for ensuring that the contents of the primary curricula in the four provinces meet a specified standard. Curriculum development follows an explicit procedure. The Curriculum Wing solicits draft curricula for each subject and grade level from Provincial Curriculum Bureaus, who in turn call together their own committees of teachers and subject specialists to comment on the drafts. The National Committee on Curriculum analyzes the drafts, giving consideration to the experts' comments, and then submits its own recommendations to the Ministry of Education for final approval.

Once approved, the curriculum is published and sent to the Provincial Textbook Boards for the preparation of textbooks. Included in the curricula are technical specifications and

outlines for topical units of the textbooks. In practice, these topical outlines, rather than other specifications of the curriculum, guide the development of textbooks and determine a general uniformity of content across all provinces. In the process, the content of textbooks becomes topic-focused rather than skill-focused, though this fact does not, of course, preclude the development of skills from this material. Textbooks are printed and distributed in the individual provinces, in most cases, without any but the most cursory trial in classrooms. The content matter may be too difficult for the level of the children, may contain misleading information and illustrations, and the teacher may have difficulty using the material because of the way it is organized, yet little of this information is fed back into further productions of the texts. Teachers usually do not become acquainted with these texts until they reach the classroom.

In the course of developing the general and specific objectives for the subject matter, it is not clear whether experts consider what children must know to possess a "fundamental" education or "realize their potential", as called for in the national goals, or whether the concern has shifted to subject content as opposed to subject skills. Certainly, by the level of subject unit objectives, the connection with general goals is no longer clear. Nowhere is there an explicit statement that these unit objectives derive from such sources.

2.3 Mathematics Curriculum

The curriculum for mathematics in grades one through ten was revised between 1973 and 1976 to include the concepts of new math that were borrowed from Western subject curricula. However, because of the difficulty of implementing these new curricula and because of criticisms about their relevance, a national conference was convened in 1979 for teachers, textbook writers and educators to discuss a new revision of the mathematics curriculum. The final version was approved in 1981 and has not been changed since. The curriculum states the objectives for mathematics at three levels of specificity without drawing an explicit connection between them. They appear as general, specific and unit level objectives.

2.3.1 The General Objectives. The general objectives of the primary school mathematics curriculum broadly state the educational needs of Pakistani children in this subject matter.

The program is directed to:

- (a) satisfy the mathematical needs and interests of the child through developing mathematical capacities that he may use effectively in his personal and social life;
- (b) develop a disciplined mind, sound judgement and a capacity for rationally solving the problems of everyday life;
- (c) provide the foundations for understanding scientific reasoning and calculation;
- (d) create an appreciation for and interest in mathematics, by demonstrating the contribution it has made and is making to the present civilization and culture;
- (e) provide guidance for the discovery and creation of patterns.

(1981: Document circulated by the Curriculum Wing Ministry of Education, Islamabad)

2.3.2 The Specific Objectives. The specific objectives of the primary school mathematics curriculum remain fairly broad. It is possible to see the relationship between some but not all of the general and specific objectives. The mathematics program is asked to help the child:

- (a) acquire basic knowledge of numbers;
- (b) develop appropriate skills of computation in four fundamental mathematical operations;
- (c) acquire basic knowledge of two and three dimensional geometrical figures;
- (d) develop ability to solve practical problems by the application of fundamental measures (money, time, weight, length);
- (e) understand the presentation of data in visual form.

(1981: Document circulated by The Curriculum Wing Ministry of Education, Islamabad)

In their present form, student attainment of the general and specific mathematics objectives is not easily measured. Without much difficulty, however, most of the objectives could be made more concrete and measurable.

2.3.3 Unit Objectives. Unit level topics describe learning objectives in terms that make them more susceptible to measurement. For illustrative purposes, unit topics for grade five (when the primary objectives should have been achieved) have been presented here.

GRADE FIVE

Unit-I. Roman Numerals:

- (a) decimal fractions up to three places;
- (b) Roman numerals up to 20 and 50, 100 and 1000;
- (c) divisibility, factors, multiples, and concepts of prime and composite numbers; highest common factor of addition and multiplication (involving fractions and integers).

Unit-II. Algebraic Operations:

- (a) reducing fractions to their simplest form;
- (b) addition and subtraction of decimal fractions up to three places;
- (c) multiplication of decimal fractions by whole numbers;
- (d) multiplication of two decimal fractions;
- (e) division of decimal fractions by whole numbers;
- (f) division of decimal numbers by decimal fractions;
- (g) conversion of decimal fractions into common fractions; conversion of common fractions (with denominators of 2 and 5) into decimal fractions;
- (h) use of brackets in common and decimal fractions;
- (i) problems involving addition, subtraction, multiplication and division of common and decimal fractions;

Unit-III. Unitary Method:

Simple cases of unitary methods.

Unit-IV. Average:

Simple cases of averages.

Unit-V. Geometry:

- (a) concepts of angle, right angle, right triangle and quadrilateral;
- (b) areas of a right triangle;
- (c) perimeters of triangles and various types of quadrilaterals;
- (d) concepts of cube, cuboid, volume and its units.

Unit-VI. Graphs:

Reading bar and line graphs.

2.3.4 Timetables. The units of mathematics for each grade level are intended to be completed over the period of a school year according to a specified schedule. During visits to schools, supervisors often check whether a teacher is working according to the timetable. A teacher who is behind may be reprimanded and told to speed up the progress of the class. One who is ahead may be commended. Such practices encourage the teacher to move as quickly as possible through the textbook. Any time "saved" in this way is used for review of the textbook lessons. Review before final exams may occupy one to three months. In the classroom, as a consequence, textbooks become the major referent for teachers about what is taught in mathematics. Moving through the text takes precedence over functional considerations such as whether or not the child is actually learning desired skills.

A typical timetable can be illustrated by that found in NWFP when, by the end of August in grade five mathematics, the child should have completed, at a minimum, the common fractions and, if possible, up to the section on algebraic operations. From September through November, the class should have finished the material on unitary methods and averages. The final units on geometry and graphs should be completed by the end of February. The month of March is used for review and examinations.

2.3.5 Textbooks. Mathematics textbooks published in all provinces of Pakistan adhere closely to the unit topics listed by chapter name in the technical specifications of the curriculum. Only minor variations can be found in the textbooks of the various provinces. Some provinces copy the books of other provinces, modifying the content to relate to local conditions.

Textbook content remains much the same over a number of years. Writers are often subject specialists, frequently from a university faculty, and usually do not have experience teaching in primary school classes.

2.3.6 Testing in Grade Five. Mathematics tests in primary schools are normally developed by teachers at the classroom or school level and are also administered by these same individuals. Only at the fifth grade level is it possible to find, in most provinces (Punjab, NWFP and Sind), tests that are developed independent of the local classroom teacher. It is therefore difficult to make specific comparisons across provinces, or even within provinces across district lines. The following examples of district tests are given for illustrative purposes only, to show the relationship between testing, primary curriculum objectives, and textbook content.

The first example is a scholarship examination from the district of Sahiwal in Punjab. The test was developed under the supervision of the district educational authorities and was administered by them at the end of the 1987 school year. This grade five mathematics test consisted of six questions totalling a possible 50 marks. The time allowed to complete the test was one and half hours. Question 1 consisted of five sentences with blanks where the child was asked to supply the missing information. The other five questions required the child to perform calculations. Question 2 was split in two parts for operations involving compound and decimal fractions. Question 3 required calculations of highest common denominator. Questions 4 and 5 consisted of simple arithmetic problems. Question 6 required the child to find the area of a park and the expenditure necessary to convert it into a grassy plot. Overall the test is based closely on textbook content. Question 1 is a test of a child's rote knowledge of textbook content. Questions 2-6 require the child to demonstrate computation and calculation skills derived directly from lessons in the book. Overall, two types of learning are tested: the

acquisition of subject knowledge and the application of principles to original problems not found in the text.

Another example of mathematics tests is from the district of Okara in the Punjab. It is the terminal examination for all students of the district in the year 1987, administered by the District Education Officers and their assistants at various centers in the district on the same day. Those students who obtain the highest marks receive scholarships. In the district of Okara there is no distinction between the fifth grade promotional exam and the scholarship exam. The test time is not mentioned. It has 3 questions. Question 1 consists of two parts: children are asked to write answers to such questions as how many radii and diameters are in a circle and whether these are equal in length. Part two of question 1 asks the child to calculate the area of a rectangle and the cost of planting grass in it. Question 2 asks the children to prepare an account of the annual income and expenditure of a factory laborer to find out his profits or losses. Question 3 consists of three parts: part one asks for calculations; part two asks about kinds of fractions and part three requires the child to identify the lowest common denominators of given numbers. The fact that the tests are so closely related to textbook content is an additional factor that encourages teachers to stick diligently to completing textbook content rather than developing general mathematical skills.

2.4 Urdu Curriculum

The Urdu curriculum for grades one through five is intended to develop the skills of language literacy. For most children in Pakistan Urdu, the language of instruction, is a second language. Its acquisition is important politically as a means of unifying national communication.

2.4.1 The General Objectives. The general objectives for Urdu at the primary level include the following. The children should:

- (a) recognize and distinguish between objects;
- (b) differentiate between difficult sounds;

- (c) speak with creative and knowledgeable ability, using correct pronunciation and accent;
- (d) read with comprehension and pleasure at discovering new things;
- (e) write with correct spelling and good handwriting;
- (f) draw correct conclusions from various items of content;
- (g) use and remember knowledge learned;
- (h) use basic language and understand its construction;
- (i) develop the habit of reading correctly and supplementing his texts with other books;
- (j) love the Urdu language and feel proud of it;
- (k) become aware of national culture and develop a pride in it;
- (l) develop a concern for Islamic teaching and practices.

2.4.2 The Specific Objectives. The general objectives of the Urdu curriculum state the broad themes for the subject area while the specific objectives provide more detailed information about content areas. In grade five, the child should:

GRADE FIVE

Observation:

- (a) visit historical places and general places of interest to collect information that he finds interesting;
- (b) write an illustrated story;
- (c) describe daily events and activities;

Hearing and inference:

- (a) be patient when talking with others;
- (b) understand others with ease;
- (c) find it enjoyable to listen to audio equipment;
- (d) be able to correct his accent by listening to audio equipment;
- (e) listen to the telephone and understand the message;
- (f) be able to send messages from one place to another;

Speaking:

- (a) be able to talk about his experiences and express his feelings easily;
- (b) be able to express ambitions and needs in an appropriate way;
- (c) be able to speak with a correct accent;
- (d) be able to make a speech in the school assembly of at least two minutes;
- (e) be able to deliver a speech on a specific topic with enthusiasm for about four minutes;
- (f) involve himself in discussions and give clear reasons for his point of view;
- (g) be able to talk about problems in his own area of interest;
- (h) be able to relate his experiences and views on a given topic logically and consistently;
- (i) be able to talk about relatively complicated pictures and scenes;
- (j) be able to recite the national anthem, a moral poem, story or prose appropriate to specific occasions;
- (k) take part in drama.

Listening:

- (a) be able to determine the main points of articles, manuscripts, newspapers and magazines;
- (b) develop proper reading habits;
- (c) find enjoyment in reading relatively long books;
- (d) learn his favorite poems by heart.

Writing:

- (a) learn to write paragraphs in good handwriting;
- (b) be able to spell correctly;
- (c) know how to use periods and question marks at the end of a sentence;

- (d) write letters, acknowledgements, and invitations and know how to fill in a money order form;
- (e) be able to write about his observations and feelings;
- (f) prepare posters for his classroom;
- (g) be able to write easily on a blackboard;
- (h) be able to write a story, describe an event or write a poem;
- (i) be able to write essays that are easily understood;
- (j) prepare a notebook of his favorite verses.

Expression:

- (a) be aware of the relationship between events;
- (b) be able to draw appropriate conclusions from incidents;
- (c) act appropriately keeping in mind the possible implications of specific events.

Use of information and observation:

- (a) love and respect Islam and Pakistan;
- (b) present facts about his country;
- (c) explain the merits of his religion;
- (d) describe suitable religious environments, social activities, fairs, games and natural sceneries;
- (e) deliver speeches or write essays on topics of national and international interest;
- (f) express his desires for his own future;
- (g) take part in discussions, and express his own point of view and show respect for others' points of view;
- (h) participate in speech contests.

Vocabulary and language:

- (a) write correct sentences;
- (b) complete an unfinished story with the help of hints given to him;
- (c) know the definitions and uses of nouns, verbs and pronouns;
- (d) develop a satisfactory vocabulary of synonyms, antonyms and words of similar pronunciation;
- (e) know how to use a dictionary;
- (f) point out the similarities between words of Urdu and the local language;
- (g) know how to use specific idioms and phrases.

Study habits and supplementary study:

- (a) improve his study habits;
- (b) increase his speed in reading.

Many of these specific objectives are ignored in classroom teaching both because they are not made known to the teacher and because they do not appear in textbook content. Some, such as those requiring audio equipment, would be very difficult to implement under the conditions existing in most Pakistani schools. Others would be difficult to assess because of the vague way in which they are described. If the system's effectiveness were to be tested, these are the objectives whose acquisition should be evaluated, but since many are largely ignored in Pakistani classrooms, the outcomes are already fairly clear.

2.4.3 Textbooks. The curriculum sent to the Provincial Textbook Boards by the Curriculum Wing of the Ministry of Education charges the writers of Urdu textbooks to keep in mind the general and specific objectives for each grade when developing the materials, and to consider the age, interest level, variability in individual capacities and attention spans of children when writing the content. Textbook writers are given the chapter headings for the Urdu book and must write according to these topics.

For illustration, the example of the NWFP fifth grade Urdu textbook is given. The book has one hundred and twenty pages divided into thirty-seven lessons, and includes nine poems. The first chapter is "Hamd" (praise of God). The second lesson, "Rehmat-i-Alam", gives some examples of the kindness of the Prophet. Similar lessons have been included in textbooks of the other provinces. The topic is always the same, but examples may vary from province to province, especially if the topic lends itself to specific examples of local people and events. "A National Song" is included in the NWFP book as in other provincial books. "Silk Route" (The Karakorum Highway) is another common topic of these books. Allama Iqbal's famous poem "The Prayer" is given at the end.

The grade five book includes no dramas nor any dialogues. Pictures are produced in black and white. The book has an attractive title page and clear printing. Every lesson has from four to ten questions in the exercises given at the end. The exercises are meant to increase the skills of children in the reading, writing and comprehension of Urdu. The content of the lessons is intended to instill in the student the desire to worship God and to follow the traditions of the Prophet, to respect national heroes, to be aware of Pakistani history and, specifically, of the Pakistan movement, to appreciate the integrity of the Muslim Ummah, and to learn about the development of the human being in science and culture. All these topics therefore relate to the objectives listed in the curriculum.

2.4.4 Timetables. The authorities provide timetables telling the teachers how quickly they should progress through the various textbook chapters of Urdu. The grade five Urdu timetable for Punjab states that the child should have completed the first nine lessons of the text during September, 33 lessons by the end of November and the whole book by the end of February. The child should also have completed the exercises at the end of each lesson at each of the specified times when units are completed.

2.4.5 Testing. An example of a grade five Urdu test is found in the 1987 scholarship examinations from the district of Sahiwal. Usually there are two types of tests given to grade

five students. The first test is a promotion test and is prepared by district authorities and administered by them to all grade five students in the district. The test is unique in each district. Only those children who do well on the district exams are allowed to compete with other children from the same district on scholarship exams.

The Sahiwal exam has a total of fifty marks and must be completed within one and a half hours. Question 1 consists of two parts with one paragraph for each. The child must explain the paragraph in simple Urdu. Question 2 similarly contains two parts with each consisting of a verse of poetry. Children must explain these verses in their own words. Question 3 has three parts. In part one, the child must write the meaning of words for the five pairs of words having the same sound. Part two requires children to give the opposites of given words. Part three asks the child to write sentences using given idioms. Question 4 requires children to select five words out of a list of words to define and use them in a sentence. In question 5, the child is asked to write an essay on one of the following topics: "a morning walk," "my school," and "Quaid-i-Azam"--a national leader. To assess children's writing ability, ten words of dictation are included in the test.

Another example of the grade five examinations comes from the district of Bahawal Nagar in the Punjab province. It is the scholarship test for the year 1987. The test must be completed within one hour and a perfect score was forty marks. The first part of question 1 asks the child to give the meaning of a paragraph in simple words. Part two of question 1 requires the child to give the meaning of two verses. Question 2 asks the child to show that he/she knows the meaning of given words by writing them in sentences. In question 3, the child must provide the plural of given words in part one and give words with the opposite meaning for six words in part two. Question 4 asks about grammatical points and question 5 suggests two topics from which the child selects one to write an essay.

3. CLASSROOM IMPLEMENTATION

As noted earlier, when teachers are not aware of the objectives of the educational system, they tend to develop their own set of operational objectives based on cultural

expectations and the behaviors modelled for them during their own educational experiences. These expectations emerged clearly in the study of classroom practices in Pakistani schools. In this study, 60 teachers were observed conducting 265 lessons of Urdu, math, and science. In addition to inventories of resources and characteristics of the teaching context, interviews were conducted with headteachers, supervisors and other educational officials to discover what they considered "good schools", "effective teachers", and the "minimally required facilities" for good teaching to take place. Since the informal understandings of Pakistanis about good teaching are often implicit and felt to be self-apparent, it is not always easy for officials to express them clearly. For that reason it was necessary to infer these understandings from the behaviors and opinions of staff. For example, the "ideal" characteristics for schools can be inferred from similarities in schools that have been rated highest by supervisors--neat orderly school buildings and grounds, with comparatively well-furnished classes and children exhibiting polite behaviors to their elders. The accepted behaviors for "good teachers" must, also by inference, be those that the teachers rush to perform when observers enter the classroom--straightening up the rows of children, complaining about dirty uniforms, creating an atmosphere of strict discipline and control in the learning process. These expectations are echoed in the proformas supervisors use to observe teachers in their classrooms, that emphasize a teacher's personal characteristics and conduct rather than instructional activities related to academic or skill production. In short, informal understandings about the purpose of education fill the vacuum when explicit objectives are not well-communicated, or when the circumstances surrounding education do nothing to direct behaviors towards the ends formally demanded for the system.

How does this translate into classroom activities? The teacher in the school is given a textbook, blackboard and chalk, and in the absence of other information about what to do, sees his/her job as conveying the contents of the textbook as accurately and as completely as possible, even if that process requires having children memorize large portions of the text. This activity is conveniently consistent with the expectation that learning be a controlled, systematic, and orderly process. The "good" teacher accomplishes this task through a series of

mechanical activities including repetition, recitation, imitation, dictation, copying, and other forms of iterative practice. Despite the time spent in these activities, however, there is every indication that academic goals are not the primary goals of schools and teachers. Student tests that might hold teachers to performance standards are only administered on a supra-school level at the end of grade five, and pass levels are generally set at 30 percent of the total score. Official records mask a generally poor performance by recording only the percent of passes. These scores do not affect what happens to a school or to a teacher and therefore, there is little incentive for schools or teachers to strive for excellence in academic performance. No effort is made to analyze why scores overall tend to be so low, nor to seek remedies in curriculum, training, or other inputs possibly contributing to the poor standards.

While academic outcomes seem little emphasized, the way classroom activities take place absorbs a great deal of teacher interest. Almost every classroom boasts an elaborate ritual for visitors, for showing respect to older persons, for how to sit, for how and when to prepare writing slates, for how to receive permission to enter and leave rooms, for beginning and ending the school day, for how to attract the teacher's attention, and for how teacher-directed questioning and answering periods should be conducted.

Rather than the other way around, academic activities at present provide a framework or vehicle for inculcating the personal characteristics that children are expected to acquire as educated persons. Acquiring the proper attributes is perhaps more important than developing the capacities in subject matter, just as the papers signifying degree completion may be more important than the quality of the skills learned. An educated person is disciplined, restrained, polite, neat, quiet, and accepts authority. In tribal and village areas, some of these characteristics may be in marked contrast to the norm for illiterate members of the community⁴. A person's capacity to be a good teacher is evaluated by these characteristics, no matter how he/she teaches and no matter how much the students learn. The significant factor is that as a well-mannered individual, he/she models the behaviors that are one of the primary

⁴These characteristics must correspond very closely to what the colonial powers attempted to inculcate in the clerical and military personnel for whom the early education systems in Pakistan were designed.

ends of education for the child. Supervisors, teachers, and researchers in this study evaluate teachers and students positively to the extent that they were characterized by these traits, and schools to the extent that they provided the orderly environment where these characteristics could be taught.

4. SUMMARY AND CONCLUSIONS

Originally, the purpose of this paper was to describe what currently exists in Pakistani curriculum documents, textbooks, and formal exams without analyzing the merits of these components of the educational system or how they are organized. This amended paper still does not analyze the individual components of the system but rather looks at how curriculum, texts, and tests articulate during the course of the instructional process, and how due to the weakness of formal links between these components of the education system in Pakistan, teachers fall back on their own constructions of educational purposes.

The Pakistani education system starts with a great deal of documentation about purpose. There are four levels of objectives that set the agenda for the education program: (1) national goals, (2) general primary level objectives for each subject, (3) specific primary objectives for each subject, and (4) unit level objectives for each grade and subject. The first level is highly abstract, referring to such goals as "loyalty", "creating awareness of...Pakistan and Islam", and "producing citizens". The second level, though focused more closely on subject matter, is equally abstract, calling for "satisfying mathematical needs", "developing a disciplined mind", etc. These abstract subject objectives become somewhat more specific by the third level and highly focused by the fourth level. None of the levels are explicitly linked, though one must presume a connection.

As the basis for developing textbooks, writers are given the fourth level of objective, which specifies topics for the chapters they must write. Usually they concern themselves with elaborating on the given topics rather than using the topics as a base on which generic skills may be built. Teachers, also, rarely have access to documents stating the larger goals of the program and it is doubtful if these documents would make much difference even if they

possessed them. Every indication they receive makes it appear that it is enough for them to teach what is presented in textbooks. This is reinforced by "outside" sources of direction, such as supervisors' assessments, the syllabus timetable, and the fifth grade district-wide test.

It is usually assumed that the purpose of compiling and publishing objectives is to direct the educational program toward specified outcomes. A test of this purpose would be to assess whether students have learned the skills and knowledge called for in the objectives, independent of the textbook content--although, provided that the textbooks are also shaped by curriculum, one would expect some connection. Phrased as many of the objectives are now, it would be difficult to test the general and specific objectives by grade and subject level in this manner. It would not, however, be difficult to rephrase them in a way that would make them susceptible to measurement. This would require the consensus of educators on exactly what constitutes acceptable requirements to meet each objective, and also what indicators would give evidence that objectives have been met. At present the purposes of this kind of assessment are neither understood nor valued in the Pakistani system, and therefore those who staff the components are not held accountable for fulfilling their part of the mission. Educators consider it sufficient to make statements of intent without considering what it takes to produce results. Form, and not function, again becomes the watchword.

In general then, from review of the documents and from classroom observations, three points seem clear. First, the way the present curricular documents are phrased makes it difficult to use them as such documents are usually used, to focus sharply all relevant components of the educational system, including texts, exams, teacher training, supervision, and school and classroom management. Second, the phrasing also makes it difficult to assess the strengths and weaknesses of the existing program by other than arbitrary means. Finally, the lack of clear direction may be a serious problem for classroom teachers who, without benefit of the curriculum documents, must decide on their own what outcomes to pursue. At present, the most obvious academic path is textbook memorization since this is most likely to lead to success in currently constructed tests.

Where formal systems fail to forge strong connections in their constituent parts, informal links and ideologies emerge to fill the vacuum. National educators seem surprised when the products of their system do not turn out to be the creative citizens contributing to national development they asked the education system to produce. Teachers feel hurt that they are blamed for an inferior product when, with strong discipline and control, they have produced what they thought everyone wanted: children with the characteristics of good, tractable bureaucrats.