COURSE TEAM

Author: Dr. Sabir Hussain Raja

Reviewers: Dr. Muhammad Iqbal Chaudhry
Dr. Muhammad Maqsood Alam Bukhari

Chairperson: Prof. Dr. Rehana Masrur
Department of Secondary Teacher Education
Teacher Education Department
Allama Iqbal Open University, Islamabad

Members:

1. Dr. Shaukat Ali Siddiqui
   Ex: Dean, Faculty of Education AIOU, Islamabad.
2. Dr. Ahmed Ali Arain
   Ex: Dean, Faculty of Education
   Sindh University.
3. Dr. Mukhtar Ahmed Bhatti
   Ex: Joint Education Advisor
   Government of Pakistan, Islamabad.
4. Dr. Rehmat Ali Farooq
   Ex: Consultant
   Curriculum Wing, Islamabad.
5. Dr. Sabir Hussain Raja
   Programme Coordinator, B. Ed.
   AIOU, Islamabad
6. Dr. Tanveer-uz-Zaman
   Programme Coordinator, M. Ed.
   AIOU, Islamabad.
7. Mr. Ghulam Rasool Muhammad
   Programme Coordinator, C. T.
   AIOU, Islamabad.
8. Ms. Salma Waqar
   Programme Coordinator, PTC.
   AIOU, Islamabad

Editor: Dr. Mahmudur Rahman
Consultant, AIOU, Islamabad.

Course Development Coordinator: Dr. Sabir Hussain Raja

Course Coordinator: Ms. Shaheen Ashraf Tahirkheli
Department of Secondary Teacher Education

INTRODUCTION

Secondary education is indeed a continuation of Elementary Education, a preparatory stage for higher education and a terminal stage for most of the Adolscents. It provides intellect for higher education. It forms major bulk of labour force in any country. But the success of this most crucial stage of any education system depends upon the training and education of the secondary school teachers. The course "Secondary Education" covers all the relevant aspects and will provide deep insight and vision for secondary school teachers.

Unit-1 deals with the significance need and nature of secondary education; it even highlights the aims and objectives of secondary education; the development of secondary education in Pakistan, and scheme of studies at secondary level have also been elaborated in this unit. Unit-2 describes the organisational structure of secondary education, examinations, and structures of boards.

At present, there are different types of institutions imparting secondary education in the country. Unit-3 gives information about some of the well established institutions. To attain the objectives of secondary education, a balanced curriculum is a basic requirement. Unit-4 covers all relevant features of curriculum development at secondary level. Educational process is incomplete without evaluation. Evaluation is a systematic process that plays very important role in effective teaching. Unit-5 is about evaluation at secondary level. Unit-6 enriches the knowledge of teachers providing information about the traditions, customs, environmental and historical factors constituting educating system in different developing/developed countries.

Unit-7 deals with the development of Secondary Education in Pakistan since independence. It provides information about the targets and achievements made in secondary education through different five-year plan and education policies. Unit-8 is about history and development of teacher training programmes at secondary level in Pakistan. It also gives different models presently working in the country. To study the problems, issues and trends at secondary level is also very important. Unit-9 covers this aspect in detail.

The study guide provides a comprehensive guideline for readers, but at the same time gives an overview of all the related aspects of secondary education. The allied materials/references provided along with the units are also important for the completion of the course.

The students are expressed to go through the materials and do additional reading as well. This course will ultimately update the knowledge of secondary school teachers and may serve as motivation for them.

Course Coordinator

FOREWORD

Secondary stage is said to be very crucial stage of life. A student enters adolescence at this stage. The basic perceptions and nodes of behaviour start taking shape and problems of adjustment with the new roles in life assume abundant significance. It also occupies most critical position in any system of education because it provides middle-level workers the economy on one hand and on the other it acts as a feeder for the higher levels of education.

Because of immense significance of secondary stage the developing countries are concentrating attention their and conducting research in exploring better solutions to the increasing problems faced by young people at secondary level.

To prepare our next generation with the needs and requirements of the 21st century, we will have to reorganize the secondary education to face the future challenges.

The course on "Secondary Education" is one of the professional electives in B.Ed Programme. The Allama Iqbal Open University is playing a leading role by providing facilities to in-service teachers for equipping themselves with the present knowledge and techniques at secondary level

It is hoped that the students will benefit from the book and get motivation to equip themselves with upto date knowledge about secondary education

Vice-Chancellor
Allama Iqbal Open University

LIST OF CONTENTS

		Page
Unit-1:	**Introduction to Secondary Education**	1
1.1	Introduction to Secondary Education	2
1.2	Nature of Secondary Education	2
1.3	Significance of Secondary Education	3
1.4	Objectives of Secondary Education	4
1.5	Aims and Objectives of Education for Preparing Practicing Muslims and for Creating Islamic Social Welfare State	7
1.6	Secondary Education in Pakistan	8
1.7	Higher Education	9
1.8	Scheme of Studies for the Secondary School Education	10
1.9	Scheme of Studies (Higher Secondary)	19
1.10	The Stage of Formal Operations	20
1.11	Structure Developed in the Formal Operational Stage	20
1.12	Self-Assessment Questions	22
1.13	References	22
Unit-2:	**Organisational Structure of Secondary Education**	23
2.1	Ministry of Education	24
2.2	Education Secretariat	24
2.3	Provincial Departments of Education	25
2.4	Secretariats of Education	25
2.5	Directors Public Instructions	27
2.6	Federal Govt. Educational Institutions (Cantts/Gars)	29
2.7	Boards of Intermediate and Secondary Education	33
2.8	Administrative Structure of the Boards	35
2.9	Controlling Authorities	36
2.10	Administration of Examinations	37
2.11	Examinations, Promotion and Certification	38
2.12	National Bureau of Curriculum and Textbooks	40
2.13	Self-Assessment Questions	42
2.14	References	42

		Page
Unit-3:	**Types of Schools at Secondary Level**	43
3.1	History, Status and Functions of Federal Directorate of Education	44
3.2	Organisational Structure of Federal Directorate of Education	45
3.3	Beaconhouse School System	48
3.4	Certificate of Professional Studies in Education	54
3.5	The Teaching Programme	55
3.6	Assessment	57
3.7	The City School	59
3.8	Goals and Objectives of T. C. S.	61
3.9	Organisational Structure	61
3.10	Staff Development	66
3.11	Activity	69
3.12	References	69
Unit-4:	**Curriculum Development at Secondary Level in Pakistan**	70
4.1	What is Curriculum	71
4.2	Curriculum Theory	72
4.3	Curriculum Approaches	75
4.4	Aims and Objectives of Curriculum Development at Secondary Level	75
4.5	Characteristics of Curriculum	77
4.6	Curriculum and Syllabus	79
4.7	Principles of Curriculum Construction	79
4.8	Evaluation of the Curriculum	82
4.9	Determination of Curriculum	82
4.10	International Aspects of Curriculum Development	83
4.11	Curriculum Development: The FIRE Paradigm	84
4.12	Some Aspects of Curriculum Development in Pakistan	86
4.13	Creation of National Centres in the Provinces	87
4.14	Mechanism for Curriculum Development in Pakistan	88
4.15	New Trends at Secondary Level	90
4.16	Textbooks	91
4.17	Criteria for the Selection of Books	92
4.18	Self-Assessment Questions	93
4.19	References	93

		Page
Unit-5:	**Evaluation at Secondary Level**	95
5.1	Evaluation	96
5.2	Internal/External Examinations	100
5.3	Textbooks	100
5.4	Evaluative Process in the Education System	102
5.5	Examination Reforms, Test Developments and Research	103
5.6	Examination, Promotions and Certification	104
5.7	Weaknesses	105
5.8	Shortcomings	106
5.9	Activity	107
5.10	References	108
Unit-6:	**Secondary Education in Comparative Perspective**	110
6.1	Why Comparative Education	111
6.2	Purposes of Studying Secondary Education in Comparative Perspective	111
6.3	Secondary Education in UK	113
6.4	Secondary Education in USA	115
6.5	The Formal System of Education in Japan	116
6.6	The Formal System of Education in Germany	119
6.7	Secondary Education in Indonesia	125
6.8	Secondary Education System in Malaysia	130
6.9	The Formal system of Education in People's Republic of China	134
6.10	The Formal System of Education in Sri-Lanka	137
6.11	Activity	140
6.12	References	141
Unit-7:	**Secondary Education in Pakistan**	142
7.1	Quaid-e-Azam's Message	143
7.2	Secondary Education — its Dual Nature	146
7.3	National Aims of Education and Their Realisation	147
7.4	Lessons from the Sixth-Five-Year Plan	150
7.5	Perspective Plan (1988-2003)	151
7.6	Seventh Five-Year Plan (1988-93)	152
7.7	Eight Five-Year Plan (1993-98)	157
7.8	Economic Surveys, 1996-97 & 1997-98	160

		Page
7.9	Aims and Objectives — National Education Policy 1998-2010	162
7.10	Secondary Education — National Education Policy 1998-2010	165
7.11	Activity	168
7.12	References	168
Unit-8:	**Training of Secondary School Teachers**	169
8.1	Introduction	170
8.2	Reorganisation of Teacher Education	171
8.3	Teacher Education in Pakistan	172
8.4	Training of Secondary School Teachers	175
8.5	B. S. Education Model	175
8.6	Training Through Distance Education	176
8.7	B. Ed (14+1) Model	176
8.8	B. Ed. (12+3) Model	178
8.9	Practice Teaching	180
8.10	In-service Training	181
8.11	Self-Assessment Questions	184
8.12	References	185
Unit-9:	**Problems, Issues and Trends in Secondary Education**	186
9.1	Education in Pakistan	187
9.2	Secondary Education — Problems	188
9.3	Educational Facilities	190
9.4	Medium of Instruction	193
9.5	Non-availability of Audio Visual Aids	195
9.6	The Educational System Collapsed	196
9.7	Learning a Language	197
9.8	Diversification of Secondary Education	197
9.9	Issues	198
9.10	Gender and Geographical Gaps	207
9.11	Value Education	208
9.12	Computer and Information Technology	210
9.13	Self-Assessment Questions	212
9.14	References	212

Unit - 1

INTRODUCTION TO SECONDARY EDUCATION

Written by:
Dr. Sabir Hussain Raja

Reviewed by:
Prof. Dr. M. Iqbal Ch.

1.1 Secondary education (ix-xii) is an important sub-sector of the entire education system. On the one hand, it provides middle level workers for the economy and on the other it acts as a feeder for the higher levels of education. The quality of higher education, which is expected to produce high quality professionals in different fields of social, economic and political life of the country, depends upon the quality of secondary education. This level of education, therefore, needs to be organised in such a way that it should prepare young men and women for the pursuit of higher education, as well as make them able to adjust with their practical lives meaningfully and productively.

The secondary education is a stage where a student enters adolescence. This is the most crucial stage of life. The basic perceptions and modes of behaviour start taking shape, and problems of adjustment with the new roles in life assume critical significance. Four years of secondary education, therefore, provide an excellent opportunity for the educators and educationists to conceive and launch programmes which initiate the learners into proper forms of behaviour and attitudes, which lead to decent productive and peaceful life in future. For further study, let us read the following book:

Govt. of Pakistan, Ministry of Education	*National Education Policy*, 1998–2010.	pp. 37-41

1.2 Nature of Secondary Education

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

Secondary education in Pakistan, as in any other country, cannot profitably be studied unless the needs of the society and the child are fully assessed. In order to analyze the education provided at this stage, consideration must be given to the social and cultural values of individuals and to the development of potential talents. This would

necessitate the recognition of national culture and sub-cultures in which schools exist. Consideration must also be given to the nature of the learning process. Adequacy of an educational system can only be assessed when secondary education is viewed in a world-wide perspective. An educational system rapidly becomes obsolete and irrelevant to students' needs unless administrative and instructional leaders keep abreast of the new trends and developments of secondary education in different sectors of the world.

For further study, please consult:

Ahmed Noor Khan	*Secondary Education in Pakistan*, 1983	pp. 7–11

1.2 Significance of Secondary Education

Secondary education occupies the most critical position in any system of education. According to Zaghloul Morsy, Editor of *Prospects*, secondary education "has the unenviable privilege of occupying a mid-way position:

- between primary and further education as a structure;
- between childhood and adulthood as to its clientele; and
- as to its content, between pure and applied knowledge.

In any society the position of secondary education is generally paradoxical. It is expected to play a transitional role between basic education and further (higher) education, as well as to play a terminal role by providing necessary manpower for the development of the country. Thus, the complexion of subjects at this stage generally militates against each other. The group it deals with is generally at the volatile pre-adolescent stage when the boys and girls are experiencing the most intensive experience of their lives both physically and emotionally. The output of the secondary schools in developing countries primarily comprises those who want to enter life and thus queue up for already restricted employment opportunities. They have abandoned traditional and agricultural vocations and obviously dream for a white collar job in a nearby city: hence migration. This creates immense disparity between supply and demand, resulting in stock of manpower who are virtually left with no choice but to revert to petty jobs least related to their 'subject cluster' at secondary stage. A highly aspirant group reverting to joblessness leads to frustration and chaos in the society.

Another pressing problem at this stage is that of overloading of curricula. According to Heyneman, "if there is a societal problem not easily amenable to other solution, schools are called upon to sort it out. If crime figures increase, schools are called upon to teach morality. If there are more traffic accidents, schools should teach more road safety. If there is too much drinking, schools should teach more about temperance. If there is too much urban drift or too much unemployment and not enough respect for manual occupations, schools teach more 'practical subjects". Such indeed is the demand of society on secondary school which has resulted in overburdening of curricula and students, particularly 'parents' have severe reaction against school management.

Diversification of school curricula and introduction of occupational streams has necessitated the institutionalization of guidance and counselling services in schools. The developing countries which are already seized with the problem of providing suitably trained science and technical teachers, can hardly afford to supply guidance and counseling teacher to schools. The experiments of *pilot* and *comprehensive* schools in Pakistan have suffered a great deal because of non-availability of specialized guidance and counseling services.

Let us read directly from Morsy's analysis of secondary education who considers it as the 'linchpin of the whole educational system' and concludes that 'everything arises from it and converges on it'.

Morsy, Zaghloul	*Land marks: The Secondary Education Debate*, Prospects, No.61, Vol: XVII No. 1, 1987.	14.2

1.4 Objectives of Secondary Education

The objectives of secondary education are the tasks required of schools in carrying out the roles designated above. It is useful to classify objectives into different groups. General objectives are those which were found to be common to all countries in the region. They tended to be long term goals which have changes little over time. Specific objectives stage in more details how the general objective will be achieved.

General Objectives

a) To provide equity for all young people to obtain from secondary education the knowledge and skill appropriate to their needs and abilities. This objective endeavours to overcome elitist education.

b) To be a means to achieve national unity and national objectives of development.

c) To serve as an instrument for raising the quality of life of the people.

d) To serve as a preparatory stage for those who wish to pursue higher/professional education and training.

e) To improve learning through the use of both formal and non-formal approaches to education, using modern technologies and aids.

f) to establish close linkages with the community with a view to make the students aware of the real life situations and to check the alienation that exists between education and environments.

g) To establish close linkages with industry, agriculture and other places of work with a view to provide meaningful courses and adequate preparation for employment and self-employment.

h) To use a futuristic outlook and to pursue programmes keeping in view the immediate as well as long term perspective of development i.e., economic, social, political, scientific and technological.

Specific Objectives

1. To develop the skills of learning and living to:
   a) develop the ability to communicate;
   b) encourage the urge to inquire;
   c) gain personal satisfaction through effort in learning and accomplishment;
   d) develop an appreciation of problem solving methods; and

e) help people to develop their ability to respond to experience in creative, inventive and considered ways.

2. To develop appropriate values such as to:

a) become self-reliant and to develop senese of responsibility for personal and group actions in ways that show care and considerations for others (e.g. respect for others).

b) accept the rights to individuals and groups to be different provided they do not impinge excessively on the rights of others;

c) help students to develop a sense of personal identity and self-worth; and

d) help people contribute to society in a meaningful, productive and satisfying way by preparing them to enter the world of work and adult life.

3. To provide the knowledge required for satisfaction and as a basis for further education to:

a) develop an awareness of the factors of their non-living and living surroundings;

b) help people to develop an appreciation of the contribution that the arts and technologies have made to the lives of people;

c) provide experiences of the arts and science appropriate to the community;

d) develop in students an understanding of their nation, their culture, history and way of life;

e) help people to develop an understanding of people from other countries and cultures and their relationships with them; and

f) develop their understanding of human dependence on natural and man-made environments, and responsible attitudes to the use of resources.

For more details, please study:

UNICEF, Regional Office for Education in Asia and the Pacific.	*Secondary Education for the Future*, Bangkok, 1986	pp. 39-42

1.5 Aims and Objectives of Education for Preparing Practicing Muslims and for Creative Islamic Social Welfare State

After Independence in 1997, efforts were made to provide a definite direction in education in Pakistan. Quaid-i-Azam Muhammad Ali Jinnah laid down a set of aims that provide guidance to all adductions in the country. This policy, too, has sought inspiration and guidance from those directions and the constitution of Islamic Republic of Pakistan. The policy cannot be put in a better way than in the Qauids' words.

Ideology of Pakistan forms the genesis of Pakistan. The country cannot survive and advance without a policy of the entire system of education on a sound Islamic Foundation. The policy has adequate provisions for this transfer mention such as integration of society; upgrading the quality of education in Deeni Madaris. Nazera Quar'an has been introduced as a compulsory component from grade I-VIII while at the secondary level translation of the selected verses from the Holy Quar'an will be offered.

Furthermore, the desires of Quaid have been reflected in the constitution of the Islamic Republic of Pakistan and relevant articles are:

1. The state shall endear as respects the Muslims of Pakistan:
   a) To make the teachings of the Holy Qur'an and Islamiat compulsory, in order to encourage and facilitate the learning of Arabic language and to secure correct and exact printing and publishing of the Holy Qur'an.

   b) To promote unity and the observance of the Islamic moral standards.

2. Provide basic necessities of life, such as food, clothing, housing, education and medical relief, for all such citizens, irrespective of sex, caste, creed or race who are permanently or temporarily unable to earn their livelihood on account of infirmity, sickness or unemployment.

3. Remove illiteracy and provide free and compulsory secondary education within minimum possible period.

4. Enable the people of different areas, through education, training, agricultural and industrial development and other methods, to participate fully in all the forms of national activities, including employment in the service of Pakistan.

5. The state shall discourage parochial, racial, tribal, sectarian and provincial prejudices among the citizens.

Objectives

1. To make the Qur'anic principles and Islamic practices as an integral part of curricula so that the message of the Holy Qur'an could be dissemination in the process of future generation of Pakistan as a true practicing Muslim who could be able to enter into 21st century and the next millennium with courage, confidence, wisdom and tolerance.

2. To ensure all the boys and girls, desirous of entering secondary education, get the basic rights because of the availability of the schools.

3. To develop opportunities for technical and vocational education in the country for producing trained manpower, commensurate with the needs of industry and economic development goals.

4. To improve the quality of technical education so as to enhance the chances of employment of technical and vocational (TVE) education graduates by moving from a static, supply system to demand driven system.

1.6 Secondary Education in Pakistan

In determining the effectiveness of a national system of education, secondary education is universally recognized as an important stage. Developed countries such as the United States, U.S.S.R., China, and many of the European countries are concentrating all their attention on and research in exploring better solutions to the over-increasing problems faced by young people at secondary school level. Most of the people who compose the skilled manpower of a nation are trained before the end of their high school years. The quality of higher education is dependent upon the quality

achieved at this stage. The formation of character and foundations of future leadership are laid during this period. It is the time when the youth attains his formative adolescence.

The cycle of secondary education is completed in 5 years. The required age for admission to 6th grade (1st grade at secondary level) is 10 plus. Though transitionally middle school (comprising grades VI to VIII) is a part of secondary education, but in principle secondary education is considered to consist of grades IX and XII. Education policies introduced from time to time urge that grades XI and XII, presently known as higher secondary education, should ultimately be merged in the secondary stage. Though middle stage is considered to form grades VI–VIII, but all the middle schools in Pakistan arrange schooling for grades I-VIII. Higher secondary schools impart instructions from VI to XII grades. Originally the idea was conceived to arrange instructions for classes IX to XII in order to introduce 3-tier education system in the country. The medium of instruction is the national language with the exception of public schools where English has been opted as medium of instruction.

Apart from these ordinary secondary schools being managed by public and private sectors, there is another stream of institutions known as cadet colleges and public schools. These institutions are supposed to prepare personnel for Armed Forces. Cadet colleges are at Kohat, Hassanabad, Larkana, Razmak, Petaro, Mastung. Public schools include: Lawrence College at Ghoragali, Army Burn Hall School/College Abbottabad, Atchison College Lahore, Sadiq Public School, Bahawalpur etc.

According to economic survey of Pakistan, 1997-98, participation rate in 1997-98 at middle level is 49% for both sexes (male 62.0% and female 36.0%). At secondary level, it is 34% both sexes (male 43.0% and female 25.0%). It is, however, evident that girls' participation rate is almost one half compared to boys which is the main cause of low literacy rate at national level.

1.7 Higher Education

College education provides instruction from XI to XIV classes at two levels: (i) Intermediate colleges, imparting instruction to XI & XII grades both in humanities and sciences; and (ii) Degree colleges with XI, XII, XIII and XIV whereas some colleges with XV and XVI grades. At the completion of schooling at degree colleges, the

candidates are awarded Bachelor's Degree (B.A or B. Sc. as the case may be). In order to complete an honours course an additional one year study is required. After acquiring the bachelor degree additional two years are required to obtain a master's degree. A doctoral degree usually requires three years study after the completion of a master's degree course.

The duration of post-secondary education varies in technical and professional fields. The polytechnic diploma is a three-year course. Bachelor's degree in medicine (MBBS) requires five years of study after the intermediate stage (12 years schooling). Bachelor's degree course in engineering and veterinary medicine are of four years' duration after the intermediate stage.

For further study, let us go through:

R. A. Farooq	*Education System in Pakistan. Asia Society for Promotion of Innovation and Reform in Education*, Islamabad. 1994	pp. 9-10

Govt. of Pakistan, Finance Division, Economic Advisors' Wing, Islamabad.	*Economic Survey*, 1997-98	pp. 120-121

1.8 Scheme of Studies for the Secondary School Examination

This scheme of studies should be read in conjunction with the notes given below:

Component	Subject	Papers	Marks	Weekly periods
I	1. Urdu(please see note No.3 below)	One/two paper(s)	100-150	4-6
	1. English (please see note below)	"	"	4-6
	3. Pakistan Studies	One	75	2
	4. Islamiyat (please see note No.4 below	One	75	3

II	**One of the following groups:** ***Science Group***			
	1. Mathematics	One	100	4
	2. Physics	One	100	4
	3. Chemistry	One	100	4
	4. Biology	One	100	4
	General Group			
	1. General mathematics	One	100	4
	2. General Science	One	100	4
	3. Two subjects from the Y list of subjects	Two	100 each	4+4
III	**Vocational Subjects**			
	One vocational subject from the Z list of subjects	Theory & practical	250	10
IV	**Compulsory Non-examination Exercises**			
	1. Physical Exercise	12 to 30 minutes daily		
	2. Training in Civil Defence, First Aid and Nursing	72 hours in the two academic years preceding the examination		

Notes:

1. This scheme of studies is based on a school week of at least 45 periods, each period being of 40 minutes duration, excluding the time devoted to physical exercise, recess or other activities. The time indicated for various subjects in the scheme adds up to 44 periods, the 45th period being at the disposal of the head of the institution for utilization wherever needed most. This, however, is the minimum and does not restrict the freedom of the teacher to give more time where called for.

2. The syllabi and courses of reading in various subjects will be redesigned so as to enable an average student to gain a fair measure of proficiency in them within the time assigned for the purpose. The academic standard will be raised through improved teaching methods, better textbooks and other reading material.

appropriate student-teacher ratio, adequate physical facilities, proper training and dedication of teachers, and motivating students, etc.

3. The variation in the papers, marks and the periods per week assigned to Urdu and English component is meant to accommodate the teaching of a provincial/regional language where necessary, provided that the provincial/regional language studied in this component will not be taken up in component II. In the case of study of a provincial/regional language, there will be 3 papers in component I (1) and (2) and one in each language, of 100 marks each with 4 period per week.

4. "Islamiyat" in component I is meant for all Muslims students; non-Muslim students, may, at their free option, study Islamiyat or Akhlaqyat (a course in universal morality) or any one subject from the Y list reduced to 75 marks, provided that the subject chosen for study as an alternative to Islamiyat will not be taken up in component II.

5. As a general principle, a subject offered in one component will not be offered in another component. Thus, students taking up an Industrial Vocational subject in component III will not take up "Geometrical and Technical Drawing" in the Y list, in component II and likewise girls choosing Home Economics in Z list would not take any Home Economics subjects in Y list and vice versa.

6. The Y and Z lists of subjects are only suggestive and may be curtailed/expanded and introduced in schools according to the requirements and resources of an area.

7. It is the intention of the scheme that each province shall decide which school shall teach which subject or group of subjects in Y and Z lists. This decision will depend upon the local needs and resources; it is not envisaged that every school will teach every subject/vocational group/trade group.

8. A school may be allocated one of the trade groups in industrial subjects from the Z list.

9. In imparting vocational training, efforts should be made to utilize local/indigenous resources and to involve the local community as far as possible and to emphasize the element of labour and respect for those who work with their hands.

10. The concept of the scheme envisages that the teachers will use their initiative and innovation abilities to design projects/activities/instructional units/modules in the presentation of the Z list of vocational subjects. In most subjects in this list, work sheets, job sheets, information sheets, assignment sheets will be all that is required.

11. In the subject of Local (Community) Crafts in the Z list of general vocational subjects, the National Curriculum only provides broad outlines. It is intended that detailed curricula in each crafts including methods/criteria of evaluation will be developed by the school in consultation with local artisans who would also be used as resource persons for implementing the curricula in each school.

Y list of subjects (100 marks each)

1. Physiology and hygiene
2. Geometrical & technical drawing
3. Geology
4. Astronomy & space science
5. Environmental studies
6. Islamic studies
7. Islamic history
8. Pakistan history
9. Arabic
10. Persian
11. Geography
12. Economics
13. Civics
14. Food and nutrition

15. Art in home economics
16. Management for better home
17. Clothing and textiles
18. Child development and family living
19. Military science
20. Commercial geography
21. Music
22. Urdu literature
23. English literature
24. Sindhi
25. Punjabi
26. Pushto
27. Baluchi
28. Gujrati
29. Turkish
30. Bengali
31. Chinese
32. French
33. Russian
34. German
35. Japanese
36. Spanish
37. House hold and related problems
38. Elements of home economics

Z list of vocational subjects (250) marks each).

General: Students may take any one of the following subjects, each carrying 250 marks.

1. Education
2. Health and physical education
3. Nursing and first aid
4. Calligraphy
5. Photography
6. Local (community) crafts.

Commercial: Students may take subject "Typewriting" which is compulsory carrying 100 marks and one subject from No. 2 and 3 carrying 150 marks or two subjects from No. 4 to 9, each carrying 175 marks.

1. Typewriting (compulsory)
2. Book-keeping and accounts
3. Shorthand (English or Urdu or regional language)
4. Secretarial practice and correspondence
5. Business methods
6. Salesmanship
7. Insurance
8. Banking
9. Import and export procedure

Agriculture: Students may take "General Agriculture which is compulsory, carrying 50 marks, and any other two subjects from No. 2 to 7 carrying 100 marks each.

1. General agriculture (compulsory)
2. Farm economics
3. Crop production
4. Livestock farming
5. Animal production
6. Productive insects and fish culture
7. Horticulture

Industrial: Students may take any one subject from one of the following Trade Groups except Mechanical Trade. Each subject carries 250 marks, including 50 marks for "Technical Drawing".

(a) ***Mechanical Trades Group:***

Fitting will be compulsory in class IX for all students taking this group. In class X student will opt for one of the remaining 5 trades or continue fitting.

1. Fitting
2. Turning
3. Plumbing
4. Welding
5. Electroplating
6. Molding and casting

(b) ***Electrical Trades Group:***

1. Electrical wiring
2. Electrical winding
3. Household appliances
4. Radio servicing

(c) ***Wood Trades Group:***

1. Furniture and cabinet-making
2. Wood carving and inlay work
3. Joiner
4. Wood turning and Lacquer work

(d) ***Drafting Trades Group:***

1. Civil drafting
2. Civil drafting

(e) ***Printing and Graphic Trades Group:***

1. Elementary printing
2. Book-binding

(f) **Ceramics Trades Group:**

1. Ceramics
2. Glass-making

(g) **Building Trades Group:**

1. Building trades (masonry, painting and distempering)
2. Elementary surveying

(h) ***Textiles Trades Group:***

1. Dyeing, dry-cleaning and landring
2. Plain weaving
3. Carpet weaving

(i) ***Auto Trades Group:***

1. Auto servicing
2. Denting and spray painting
3. Auto electricity
4. Agricultural implements repairing

(j) ***Refrigeration and Air-conditioning Trades Group:***

1. Refrigerator and Air-conditioner

(k) **Miscellaneous Trades Group:**

1. Leather work
2. Watch repairing
3. Rubber and plastics
4. Gents tailoring

Home Economics: Students may take "Principles of Home Economics" which is a compulsory subject(s) carrying 50 marks and any one of the subjects from No. 2 to 10 each carrying 200 marks.

1. Principles of home economics (compulsory)
2. Related art

3. Hand and machine embroidery
4. Drafting and garment making
5. Hand and machine knitting and chrochetings
6. Stuffed toys and doll-making
7. Confectionery and bakery
8. Preservation of fruit, vegetable and other food
9. Care and guidance of children
10. Farm household management

1.9 Scheme of Studies (Higher Secondary)

The scheme of studies for Intermediate classes presents three components: Component I comprises two common courses, Urdu and English. Where required by law, a provincial education department may include a provincial language within the provision of time allocation for Urdu. Additional course on Islamic Education/Ethics and Pakistan Studies has been prescribed for all students. Components II and III are common plus any one of eight Groups from component II. All the Groups, and the courses within each, carry equal weightage. The Groups have been formulated to make the courses more coherent and inter-related. The subjects included in each Group, supplement one another. Preparation for higher studies, under the proposed scheme of higher secondary level, is more direct and relevant. General mathematics/mathematics form an integral part of each group of study. However, the content and scope of general mathematics, is of applied nature. The course is aimed at providing for mental discipline as well as functional utility.

For better acquaintance with the scheme of studies for secondary and higher secondary level, let us study:

Mr. Muhammad Hashim Abbasi	*Analysis of Existing Scheme of Studies and Curriculum, Curriculum Planning and Evaluation*, 1994	pp. 653-679

1.10 The Stage of Formal Operations (11-15 years) — Stage of Secondary Education

During the stage of formal operations, which on average begins around age 11 to 12, a child develops the reasoning and logic to solve all classes of problems. There is a *freeing* of thought from direct experience. The child's cognitive structures reach maturity during this stage. That is, his or her potential quality or reasoning or thought (compared with the potential of *adult* thought) is at its maximum when formal operations are fully developed. After this stage, there are no further structural improvements in the quality of reasoning. The adolescent with fully developed formal operations typically has the cognitive structural equipment to think as well as adults'. This does not mean the thinking of the adolescent with formal reasoning is necessarily "as good as" about thought in particular instance, though it may be; it means only that the potential has been achieved. Both adults and adolescents with formal operational reasons are using the same logical processes.

Assimilation and accommodation, prompted by disequilibrium, continue throughout life to produce changes in schemata. After the development of formal operations, changes in reasoning abilities are quantitative and no longer qualitative with respect to logical operations and structure. The quality of reasoning, one is capable of, does not improve after this stage, the content and functions of intelligence may improve. This does not mean that the use of thought cannot or does not improve after adolescence. The content and function of thought are free to vary and improve after this stage, which in part helps explain some of the classical differences between adolescent thought and adult thought.

One should not assume that all adolescents and adults fully develop formal operations. Several studies concluded that no more than half of the American population develops all the possibilities of formal operations. Certainly a proportion of the American adult population never advances much beyond concrete operational reasoning.

1.11 Structure Developed in the Formal Operational Stage (Secondary Education)

(a) *Hypothetical-Deductive Reasoning*

Hypothetical reasoning " goes beyond the confines of everyday experience to things which we have no experience" (Brainerd 1978, p. 205). It is reasoning that

transcends perception and memory and deals with things not directly known to us are hypothetical.

Deductive reasoning is reasoning from premises to conclusion or from the general to the specific. Inferences or conclusions based on deductive reasoning are necessarily true only if the premises, they are derived from, are true. Reasoning can be applied to arguments that have false premises, however, and logical conclusions can be derived.

Hypothetical-deductive is reasoning that "involves deducing conclusions from premises which are hypotheses rather than from facts; that the subject has actually verified" (Brainerd 1978, p. 205). In this manner the possible (hypothetical) becomes an arena within which reasoning can be used effectively.

(b) ***Scientific-Inductive Reasoning***

Inductive reasoning is reasoning from specific facts to general conclusions. It is the main reasoning process used by scientists to arrive at generalizations or scientific laws.

Inhelder and Piaget (1958) concluded that when confronted with problems, children with formal operations are capable of reasoning very much like scientists. They form hypotheses, experiment, control variable, record effects, and form the results, draw conclusions in a systematic manner.

One of the characteristics of scientific reasoning is the ability to think about a number of different variables at the same time. Those with formal reasoning accomplish this in a coordinated manner and can determine the effect of one, all, or some combinations of a set of variables.

For further study, we can benefit from the book:

Barry J. Wads Worth	*Piagets Theory of Cognitive and Affective Development Longman*, New York, London, 1989.	pp. 115-124

1.12 Self-Assessment Questions

1. Discuss Nature and significance of Secondary Education.

2. Comment on Secondary Education in Pakistan.

3. Keeping your experience in view, comment on the existing scheme of studies at secondary level.

1.13 References

1. Government of Pakistan, Ministry of Education, National Education Policy, 1998-2010, pp. 37-41.

2. Ahmed Noor Khan, Secondary Education in Pakistan, 1983, pp. 7-11.

3. Morsy, Zaghloul "Land marks: *The Secondary Education Debate*", Prospects, No.61, Vol: XVII No. 1, 1987. 14.2.

4. UNICEF, Regional Office for Education in Asia and the Pacific, Bangkok, *Secondary Education for the Future*, 1986, pp. 39-42.

5. R. A. Farooq, *Education System in Pakistan, Asia Society for Promotion of Innovation and Reform in Education*, Islamabad, 1994, pp. 9-10.

6. Govt. of Pakistan, Finance Division, *Economic Advisors'* Wing, Islamabad. Economic Survey, 1997-98, pp. 120-121.

7. Mr. Muhammad Hashim Abbas, *Analysis of Existing Scheme of Studies and Curriculum, Pakistan. Curriculum Planning and Evaluation*, 1994, pp. 653-679.

8. Barry J. Wads Worth Piagets *Theory of Cognitive and Affective Development Longman*, New York, London, 1989. pp. 115-124.

Unit - 2

ORGANISATIONAL STRUCTURE OF SECONDARY EDUCATION

Written by:
Dr. Sabir Hussain Raja

Reviewed by:
Prof. Dr. M. A. Bukhari

Pakistan is a Federal State. At the centre there is the Federal Government which comprises several Ministries and Divisions. Each Ministry or Division is headed by a Secretary who in turn is responsible to Minister. Ministers make up the Cabinet which is headed by the Prime Minister of Pakistan.

Almost a similar pattern of administrative structure exists at the Provincial level. A large number of Ministries at the Centre have their counterparts in provinces which are known as Departments. Each Provincial Department is headed by a secretary who is responsible to a Minister.

2.1 Ministry of Education

The Ministry of Education is the central organisation responsible for formulating national education policies and for development in the national education. The ministry also serves as coordinator of the policies and functions of the Provincial Education Departments.

The Ministry of Education is headed by the Federal Minister for Education who is a member of the Cabinet. He represents Ministry of Education in the Parliament or similar bodies at the federal level, submits cases to the Prime Minister for approval on important matters and keeps him informed of developments in education. He/she has his/her office in the Education Secretariat. The Education Secretariat is shown in Figure-1. It consists of the office of Education Secretary and a number of sections usually known as Wings or Cells.

2.2 Education Secretariat

a) ***Education Secretary***

The Federal Education Secretary is the Chief Executive of the Education Secretariat. He is responsible for the administration of his Secretariat and for implementation of Government's decisions and policies relating to education. In the performance of his duties, the Education Secretary is assisted by a number of Joint Secretaries, amd Joint Education Advisers, each one of whom is the head of a certain wing of the Ministry of Education. Depending upon the needs of the Secretariat and Government's policies about education and Ministry of Education, these wings within the Secretariat of Education may vary in number and functions from time to time. At present the Education Secretariat comprises

the following Wings:

b) ***Organisational Structure***

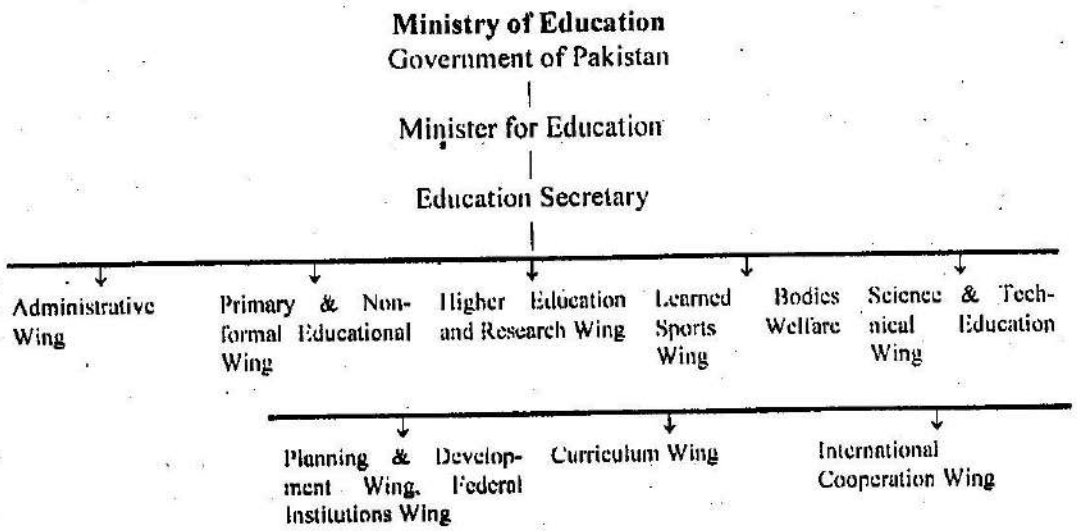


Fig-1

2.3 Provincial Departments of Education

Pakistan is a Federation of four Provinces: Punjab, Sindh, North West Frontier Province (NWFP) and Balochistan. According to the constitution, education in Pakistan is a provincial concern. Provinces are, as a matter of principle, independent in policy formulation and management of education within their administrative boundaries. In practice, however, major education policies are formulated at federal level and they are passed on to the provincial Education Departments for implementation.

The provincial Departments of Education are counterparts of the Federal Ministry of Education. In provinces, Ministers for Education are in charge of provincial Ministries of Education. Within a province the Minister for Education is responsible for policy matters concerning the Department. He conducts the business of the Department in the Provincial Assembly, submits cases to the Chief Minister for seeking his approval on important decisions. The Minister keeps the provincial Governor informed about important developments in the field of education.

2.4 Secretariats of Education

The provincial Secretariats of Education serve as counterparts of the Federal Ministry of Education. Within each province, the functions of respective Education

Departments include:

(i) Promotion of the cause of general, technical and scientific education.

(ii) Formulation of education policies and coordination of educational activities for the province.

(iii) Implementation of the educational policies, formulated by the Federal Government.

Although in essence, the purpose and functions of Departments of Education are more or less similar in all the provinces, but depending upon the local conditions and needs they differ to some extent and vary from each other in organisation and management structures. In the following pages is given the organisational management structure of the Department of Education, Punjab. Almost the same structure exists (with minor difference) in all the provinces.

(a) **Organisational Chart of Department of Education**
Government of the Punjab

Minister for Education

Secretary Education

Attached Department	Autonomous Bodies	Other Institutions
– Director Public Instructions (Colleges)	– Universities	– Director, Bureau of of Education
– Director Public Instructions (Schools)	– Boards of Intermediate and Secondary Education	
– Director, Technical Education	– Board of Technical Education	
– Director, Sports and Physical Education	– Punjab Textbook Board	
– Director General, Libraries	– Cadet Colleges Lawrence College	
– Director, Curriculum Research Centre.	– Institute of Education and Research	
– Director Staff Development		

2.5 Directors Public Instructions (Schools Colleges)

The administration of schools and colleges in the province rests with the Directors of Public Instructions, Schools and Colleges. The details of organisation and functions of the Directorate of Public Instruction (schools) are given as follows:

(i) ***Deputy Director (Planning)***

He assists and advises the Director Public Instruction (Schools) in respect of planning and development in the Department.

(ii) ***Deputy Director (Admn)***

He assists and advises the Director Public Instructions (Schools) for smooth running of administration and functions of the office. Appointing authority in respect of the posts in NPS-5 to NPS-16.

(iii) ***Deputy Director (Deaf and Dumb)***

His duty is to open and to administer the institutions for deaf, dumb and blind. He is an appointing authority in respect of posts NPS-1 NPS-15.

(iv) ***Deputy Director (Audio Visual Aids)***

To help promote the cause of Education through Audio Visual Aid. He is also an appointing authority in respect of the posts from NPS-1 to NPS-15 in respect of his office.

(v) ***Director Staff Development***

He arranges refresher-courses for guiding the teachers in the new methods of teaching. He is an appointing authority in respect of incumbents in NPS-1 to NPS-15 in respect of his office. He controls the teaching staff in elementary colleges.

(vi) ***Directors of Education (Schools)***

There are eight Directorates of Education (Schools), one at each division i.e. Rawalpindi, Sargodha, Faisalabad, Gujranwala, Lahore, Multan, D.G. Khan and Bahawalpur. Each Director of Education (Schools) is responsible for the following functions with his respective division:

(a) Administration of his office, D.E.Os offices and schools within the division.

(b) Acts as transferring authority of officers/officials from NPS 5 to NPS 18 and equivalent posts.

(c) General supervision, guidance and inspection of the D.E.Os offices and all types of schools at the division.

(d) Financial control of the whole divisional budget on school education.

(e) Opening/improvement of existing schools in the division.

(vii) ***District Education Officers (Male/Female)***

(a) Appointing/transferring authority in respect of the posts borne on the District Cadre.

(b) Duties of Drawing and Disbursing officer in respect of his/her own office.

(c) Financial control of the budget of Primary, Middle and High Schools in the District.

(d) Planning and development work of the District.

(e) To assist, guide the Department in respect of the academic matters.

(f) To attend all other matters as District Head of the Education Department.

(viii) ***Deputy Education Officers***

They assist the District Education Officers in all matters and inspection of schools.

(ix) ***Assistant Education Officer***

They perform the following duties:

(a) Inspection, supervision and guidance of Primary/Middle Schools.

(b) Drawing and disbursing officer in respect of Primary/Middle Schools.

(c) See that the funds/foreign aid is fully and strictly utilised for the purpose for which it has been provided.

(d) Supervise the provision of Primary School buildings.

For further details, please go through:

Dr. M. Athar Khan	*Educational Management System in Pakistan, Plan Implementation and Management, AIOU*, 1995	pp. 64–93

2.6 Federal Government Educational Institutions (Cantts/Gars)

Introduction

Educational Institutions of the Cantt Boards all over Pakistan were taken over by the Federal Ministery of Education in 1975. In September 1977, the administrative and financial control of these schools and colleges was transferred to DAE (Director Army ducation). Subsequently, in November 1981, a separate Directorate was created under IGT&E Branch to deal exclusively with the affairs of the Federal Govt. Educational Institutions (FGEIs) in Cantts and Garrisons (C/G). Recently, FGEI Directorate has been declated as an attached department of Ministry of Defence DEI exercises administrative and financial control over the department and its employees through the authority delegated to him under the Cabinet Division letter issued in September 1977. This is a fundamental document which spells out the functions of this Directorate. FGEI Directorate has a dual role. On the one hand it is a Directorate of GHQ, on the other it is an attached civil department of the Ministry of Defence with 99.5% of its employees being paid out of civil establishment.

The employees of FGEIs are governed by the Civil Service Rules and enjoy protection to the extent that their cases of indiscipline and inefficiency cannot be dealt with expeditiously. They have a right of appeal before the Federal Service Tribunal against any decision. For appointments and disciplinary actions, the authority of the Director is rested to the employees of BPS-15 and below. For gazetted employees in BPS-16 and above the authority for regular appointments, promotions and disciplinary actions rests totally with Ministry of Defence, Establishment Division and Federal Public Service Commission. However, the Director FGEI enjoys full powers of posting and transfers in respect of all categories of the civil employees.

Aim

The aim of this presentation is to apprise you of the existing state of FGEIs, highlighting its various aspects and functions.

Scope

The presentation will deal with the subject in the following sequence:

a. Organization, Role and Functions of FGEI Directorate.
b. Regional Offices and their Organizations.
c. Organisation, Role and Functions of Army Central Board of Education.
d. Organisation, Role and Functions of Regional Boards of Education.
e. Comparative statement of FGEIs in 1977 and at Present.

f. Contribution by the Army.

g. Budget Finances.

h. Admission Policy and its Advantages to the Army.

i. Problem Areas.

Organization of FGEI Directorate

The organization of the Directorate is as under:

Director (Brig)

Military Staff		**Civil Staff**	
Dy Director (Col)	1	Dy Director (Colleges)	1
GSO-I	2	Dy Director (Male)	1
GSO-II	3	Dy Director (Female)	1
Steno (JCO/NCO)	1	Financial & Estab. Officer	1
Driver (Sep)	2	Admin. Officer	7
		Superintendent	2
		Other Staff	65

Role of FGEI Directorate

The role of FGEI Directorate is:

"To exercise full administrative control over FGEIs in Cantts and Garrisons with a view to providing better educational facilities, primarily to the children of servicing persons and civilians residing in Cantt areas".

Function of FGEI Directorate

This Directorate performs following functions:

a. Implementation of National Education Policy.

b. Laying down of uniform sallabi, textbooks and schedule of examinations. However, syllabi and schedule of Matric, FA/FSc, BA/BSc & MA exams, are controlled by FBISE and the Universities.

c. Maintenance of high academic standards and quality of education.

d. Selection and recruitment of all categories of teaching and non-teaching staff except Grade 16 and above.

e. Management, posting, promotions, transfers, welfare and disciplinary/ administrative actions regarding civil staff. Promotions/disciplinary actions against Grade 16 and above is dealt with by Ministry of Defence and Establishment Division.

f. Preparation and processing of budget establishment, Annual Development Programmes/Plans in respect of FGEIs and procurement of necessary funds from the Ministry of Defence.

g. Execution of development projects through MES.

Regional Offices

FGEI Directorate has eight sanctioned regional offices throughout the country. An additional regional office has been established at Gujranwala and Bahawalpur and its Govt. sanction is in process. Out of nine regions, four regions are headed by Army Officers (Lt. Cols.) and five regions by civil officers. At present, following regional offices are functioning under GSOs-I/Deputy Directors (civil).

a. Peshawar, Wah, Quetta & Karachi — Under GSOs-I Lt. Col

b. Rawalpindi, Mangla, Multan, Lahore, Gujranwala & Bahawalpur.

The Organization of Regional Offices is as under:

Lt. Col GSO-I/Deputy Director

|

Major GSO-II/Assistant Director

|

Education JCO	Administrative Officer/Supdt.
2 x OR	Clerical/Ministerial Staff

Comparative Statement of FGEIs in 1977 and at Present

Comparative statement of FGEIs, students and staff at the time of take-over in 1977 and as it stands today is:

a. Land free of cost for establishment of new institutions.

b. Army blocks for schools at some stations.

c. Limited accommodation facilities for the employees in closed Cantts.

d. Following service persons to manage the affairs of FGEI Directorate and its institutions:

Contribution by Army

Rank	Authorised	Held at Present
Brig	1	1
Col	1	1
Lt. Col.	11	5
Major	12	6
JCO	8	8
OR	11	11
	44	32

The number of institutions presently being run by Federal Government Education Institutions Directorate in eleven regions throughout Pakistan:

Primary Schools	74
Model Schools	36
High Schools	135
Inter College Female	1
Inter College (Co-Education)	5
Degree College Male	4
Degree College Female	8
Degree College (Co-Education)	4

For further study, please consult:
"Operating Procedure FGEIs (C/G) Directorate".

2.7 Boards of Intermediate & Secondary Education

Functions of the Boards

Important functions and powers of the Boards are enumerated below:

1. To organise, regulate, develop and control intermediate education and secondary education.

2. To hold and conduct all examinations pertaining to intermediate education, secondary education, Pakistani and international languages and such other examinations as may be determined by the Government.

3. To lay down conditions for recognition of institutions.

4. To supervise the residence, health and discipline of the students of recognised institutions with a view to promots their general welfare.

5. To institute and award scholarships, medals and prizes in the prescribed manner.

6. To organise and promote extra-curricular activities on and for recognised institutions.

Committees of the Boards

In order to run their business, the Boards constitute the following committees:

a) Academic Committee

b) Committee of Courses

c) Committee for Recognition of Institutions

d) Committee for the Appointment of Paper Setters and head-Examiners

e) Examination Conduct Committee/Committee for the Appointment of Supervisory Staff

f) Re-checking Committee

g) Unfairmeans Committee

h) Appellate/Appellant Committee

i) Finance Committee

j) Appointment Committee

k) Such other Committees as may be prescribed by the Board.

Diffficulties/Problems Faced by the Boards

The Boards have to perform their statutory responsibilities under the provision of the Acts and Ordinances. The BISE Multan, Bahawalpur, Gujranwala, Karachi, Hyderabad, Sukkur and Peshawar did not indicate or identify any difficulty in the performance of statutory responsibilities. The BISE Lahore, Sargodha, Rawalpindi and Quetta are facing some difficulties in the performance of their statutory duties. Difficulties indicated by different boards are listed below:

a) Competent, honest and responsible teachers, lecturers refuse to accept the assignments because they avoid facing the pressure of the anti-social elements.' (BISE Lahore and Sargodha).

Recognition of Institutions by the Boards

The Boards of Intermediate and Secondary Education recognise/affiliate high schools and intermediate colleges. Institutions applying for recognition have to fill up a detailed questionnaire available with Boards. They are required to answer questions about accommodation, laboratories, libraries, educational qualifications of the staff and various other physical facilities provided by the institutions to students and teachers. Boards are authorised to recognise institutions located within their jurisdiction. The Boards accord recognition to privately managed schools on the basis of the inspection reports received from either the Ministry of Education or an Education Department. In general, the Government schools are recognised on the basis of reports received from the Director of Education. Recognition of institutions may be withdrawn on the basis of adverse reports received from the authorities mentioned above.

Rules regarding recognition of schools/colleges are often too vague and one can easily deviate from these rules. Enforcement of some strict rules may lead to closure of most of the institutions. Examples of such rules are quoted below:

1. "That admission to any class or section of a class shall be limited to a maximum of 45 in a class or section of class in case of a high school and 75 in case of institution other than the high school".

2. "That the school shall be provided with suitable equipment and furniture, including necessary apparatus for science subjects and other subjects in which practical work is conducted in accordance with the list prescribed by the Board".

3. "That the school maintains a library containing minimum number of books prescribed by the respective Board and undertakes to spend at least Rs. 500/- per year".

4. "That the teachers are suitable as regards their character, number and qualifications".

5. "That the school is housed in a building which is suitable as regards accommodation, sanitary arrangements and location and is according to the prescribed criterion".

6. "That whole-time teacher whether in a Government or non-Government recognised institutions shall not draw less than the salary prescribed by the Government for different categories of teachers".

2.8 Administrative Structure of the Boards

The business of the Boards is run by a large number of employees. The Chairmen and Secretaries of the Boards are appointed by the respective Governments on deputation. Other staff including Controllers, Deputy Controllers, Deputy Secretaries, Assistant Controllers, Secrecy Officers, Director of Physical Education, Directors/Deputy Directors/Assistant Directors Research/Research Officers, Statistical Officers, Audit Officers, Accounts Officers and the lower staff are appointed on the recommendation of the Appointment Committee of the Board.

General organisational chart of the Boards is given below:

Chairman (BPS 19/20)

Secretary (BPS 18/19)	Controller (BPS 18/19)
Dy. Secretaries/Audit Officer/ DPE (BPS-18) Director Research/ Dy. director Research. (BPS-17/18)	Secrecy Officer, Deputy Controller, (BPS-18)
Asst. Secretaries/Acctt Officer/ Director Physical Education, Asstt. Director Research, Statistical Officer, research Officer (BPS-17)	Asstt. Controller (BPS-17)
Superintendents (BPS-16)	Superintendents (BPS-16)
Assistants (BPS-11/14)	Assistants (BPS-11/14)
Lower Staff (BPS-1-10)	Lower Staff (BPS 1-10)

2.9 Controlling Authorities

The Federal/Provincial Governments exercise great influence over the Boards Appointment, Finance, Recognition and some other Committees constituted by Boards are headed by senior officers of the Ministry of Education/Provincial Education Departments.

The Ministry of Education coordinates the activities of the Boards through Inter Board Committee of Chairmen which was established in 1972. This Committee is headed by a full time officer appointed by the Federal Ministry of Education. The main functions of IBCC are: to exchange information, to create coordination among Boards in the field of examinations and other relevant matters dealt with by the Boards.

2.10 Administration of Examinations

Boards are empowered under their Acts to conduct examinations both in theory and practical papers. Conduct of examinations involves the following steps:

A. ***Paper Setting***

(i) Appointment of Paper Setters
(ii) Setting of Questions Papers.
(iii) Printing and packing of Question Papers.
(iv) Despatch of Questions Papers.

B. ***Conduct of Examination***

(i) Announcement of Date Sheet.
(ii) Earmarking of Examination Centres.
(iii) Appointments of Supervisory Staff i.e. Inspectors, Superintendents, Deputy Superintendents, Invigilators.

C. ***Assessment of Answer Books***

(i) Appointment of Examiners, i.e. Head Examiners, Sub-Examiners, Single Examiners, Practical Examiners, Assistants to help the Head Examiner.
(ii) Evaluation of answer books
(iii) Compilation of results

D. ***Tabulation***

(i) Appointments of Tabulators
(ii) Tabulation of results
(iii) Announcement of results

The above steps are completed within 4 to 6 months. Details of the procedure are given below:

Conduct of Examinations

Inter Board Committee of Chairmen, being the coordinating agency of the BISE, announce, through mass media, the schedule of examinations of all the Boards, which once declared, is strictly adhered to. However, in case of natural calamities the schedule for a particular area is changed.

Particulars of trustworthy, honest, reliable and hardworking teachers are invited from heads of institutions on the prescribed proformas. Separate forms are also provided to the teachers of different categories of educational institutions for selection of supervisory staff. After checking their antecedents and eligibility, consolidated lists are placed before Committee of Courses/Supervisory Conduct Committee/Examination

Committee for selection of staff for performing supervisory duties. However, only the Board of Intermediate and Secondary Education Peshawar appoint the supervisory staff on the recommendations of the Education Department.

Composition of the said Committee in most Boards for selecting supervisory staff is as follows:

1. Divisional Director of Education (Schools)
2. Divisional Director of Education (Colleges)
3. Member of the Board (School or College side).
4. Distt. Education Officer (Male and Female)
5. Chairman of the Board.
6. A Senior Principal.
7. A Senior Headmaster.

Examination Centres are then established keeping in view the physical facilities available there. The Superintendent, Deputy Superintendent and Assistant Superintendent, (Invigilator) supervise the conduct of examinations. Inspectors inspect the Examination Centres off and on. Mobile squads/teams constituted by the Boards pay surprise visits to the Examination Centres. Heads of institutions where examination is conducted are authorised by some Boards to act as Resident Inspectors. All these measures are adopted to check the mal-practices.

For deeper insight in the functions/responsibilities of the BISEs, let us study:

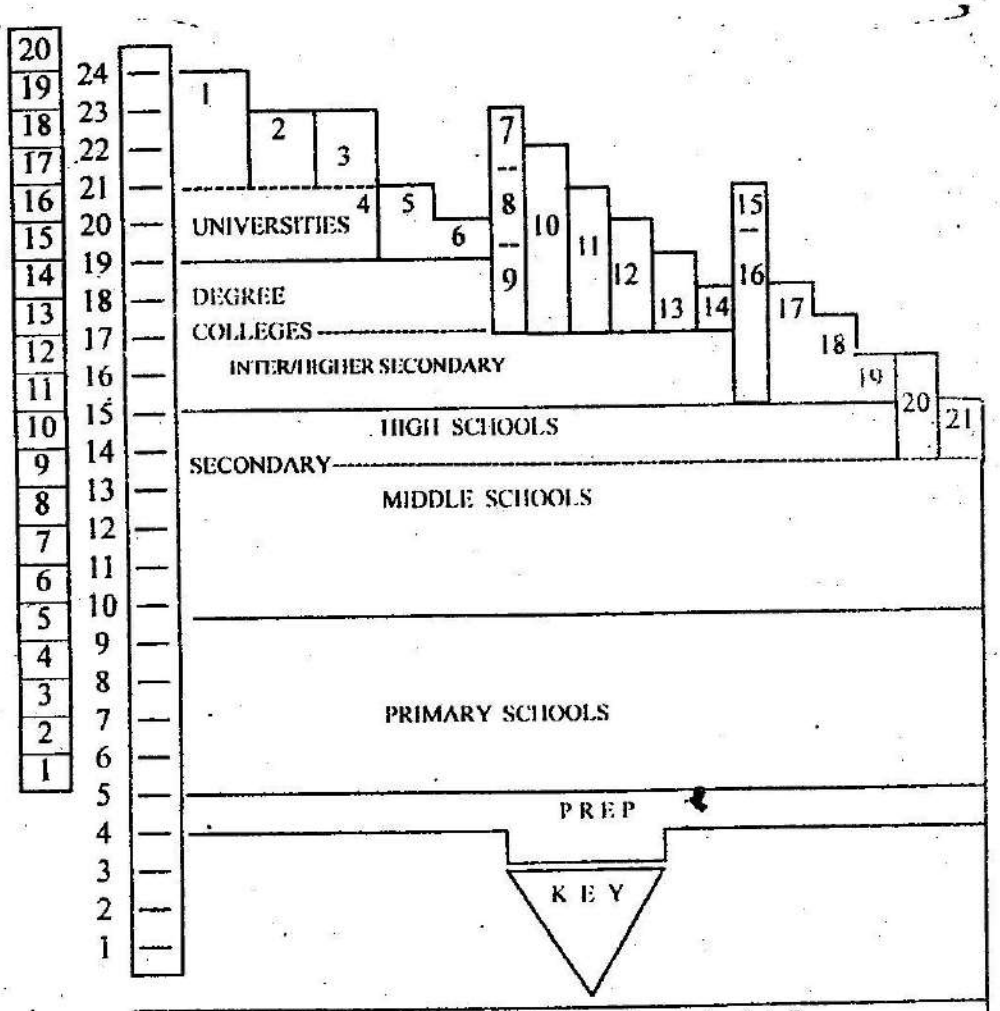
Dr. Mukhtar Ahmed Bhatti, Mahmood-ul-Hasan, Faisal Saeed (1987)	*Secondary Education Boards, An Overview.* National Education Council, G-8/4, Islamabad, December 1987.	pp. 7-37

2.11 Examination, Promotion and Certification

Boards of Intermediate and Secondary Education (BISEs) and universities are the examining bodies. Following certificates/diplomas/degrees are awarded after the completion of certain level of education: Secondary School Certificate (after 10 years schooling); Higher Secondary School Certificate (after 12 years schooling); Bachelor's Degree (after 14 years schooling); and Master's Degree (after 16 schooling). Universities confer M.Phil. and Ph.D. Degrees on the candidates who complete certain requirements of the concerned level of studies.

These certificates/degrees are awarded after completion of general stream.. For that purpose, education system of the country has been presented in Figure I. The key given at the bottom of this figure can explain the whole system with number of school years required for the completion of each cycle/stage.

Figure: System of Education in Pakistan



1. Ph.D.	2. M. Phil	3. L.L.B.
4. L.L.B/M.A/M.Sc.	5. M. Ed.	6. B. Ed. (14+1)
7. Ph. D. (Agri)	8. M. Sc. (Agri)	9. B. Sc. (Agri)
10. M.B.B.S.	11. B. Sc. (Engr)	12. BA/B.Sc. (Hon)/ B. Ed. (12+3)
13. B.A/B.Sc.	14. C.T.	15. M. Sc. (Engr)
16. B. Tech.	17. Assoc. Engr	18. Field Asstt.
19. P.T.C.	20. Voc. Trg. (Boys)	21. Voc. Trg. (Girls)

There is a public examination system in the country. Some boards and universities are following the conventional system of awarding certificates and degrees on the basis of: Third division (33-44%); Second division (45-59%) and First division (60% and above).

Some boards and universities have introduced grades as: A (70% and above); B (60-69%); C (50-59%); D (40-49%); E (33% to 39%); and F (Fail Below 33%). At the same time, there are institutions in private sector preparing the students for 'O' level and 'A' level examinations of British Education System.

Accreditation of higher education is determined by the University Grants Commission, Ministry of Education. Accreditation and equivalence of school education (secondary and higher secondary level) is determined by Inter board Committee of Chairmen (IBCC), an autonomous organisation in the Ministry of Education.

R. A. Farooq	*Education System in Pakistan*, 1994.	pp. 16-17

2.12 National Bureau of Curriculum and Textbooks

Curriculum development was never visualised as a distinct and specialised function. The entire curriculum activity was done through committees which were created for a specific purpose at a specific time and were dissolved as soon as the task was over. No permanent committee network was set up to advise and evaluate the task of curriculum development and implementation. It is in this context that need to create the National Bureau of Curriculum and Textbooks (NBCT) at Federal level was felt for coordinating the activities of various committees and centres. Similar organisations at provincial level were also established. The existing Curriculum Wing of the Ministry of Education is, in fact, a developed form of the National Bureau of Curriculum and Textbooks.

After the promulgation of 1973 Constitution, the Curriculum, Syllabi, Planning Policy, Centres of Excellence, Standards of Education and Islamic Education were placed on the Concurrent Legislative List of the Federal Government. This was a significant departure from the previous position when the education was an entirely provincial subject.

Whenever it is intended to frame or revise a curriculum, the Curriculum Wing of the Ministry of Education sends the proposals to the provincial curriculum bureaux/centres. These bureaux/centres develop or revise the curriculum in the light of frame-work provided by the Curriculum Wing of the Ministry of Education. In the provincial centres, the revision or framing of curriculum is done by the committees. These committees comprise subject specialists and persons equipped with pedagogical skills. The draft curriculum is sent to the Curriculum Wing for their consideration and approval. In the Curriculum Wing, the draft curriculum on each subject received from the provincial bureaux/centres is put up to the concerned National Review Committee. This committee is usually constituted for each subject and comprises the nominees of the provincial governments and subject specialists considered suitable for the purpose. The curriculum finalised by the National Review Committee is then put up to the Federal Education Secretary for approval. The approved curriculum is sent to the provincial Textbook Boards for production of textbooks.

The Curriculum Wing works in close collaboration with the provincial curriculum bureaux/centres, the education departments, the Textbook Boards, the Boards of Intermediate and Secondary Education and other research organisations such as Institutes of Education and Research in the provinces. In fact, the Curriculum Centres in the provinces are associated centres of the Curriculum Wing of the Federal Ministry of Education. Curriculum Wing also works in close collaboration with other international agencies. This wing is also an associated centre of the UNESCO's Asian Programme of Educational Innovation for Development (APEID), Bangkok. This facilitates the flow of information not only between these two agencies but also with other foreign agencies through UNESCO. This wing participates in curriculum development activities of other countries under various bilateral educational and cultural agreements.

For further reading please consult:

R. A. Farooq	*Education System in Pakistan*, 1994.	PP 15-16

2.13 Self-Assessment Questions

1. Comment on the functions of Boards. Also, make suggestion for improvement.

2. Propose suggestions for the improvement of the functioning of National Bureau of Curriculum and Textbooks.

2.14 Reference

1. Ahmed Noor Khan, *Secondary Education in Pakistan*: 1983, pp. 7–11.

[ ]

Unit - 3

TYPES OF SCHOOLS AT SECONDARY LEVEL

Written by:
Dr. Sabir Hussain Raja

Reviewed by:
Prof. Dr. M. Iqbal Ch.

3.1 History, Status and Functions of Federal Directorate of Education (FDE)

Federal Directorate of Education was established in 1967 as an attached department of Federal Ministry of Education with the responsibility to provide educational facilities to the children of Federal Government employees and the residents of Islamabad and its adjoining rural areas, comprising 133 villages.

The Directorate is headed by Director General. It has four Directors, namely, Director (Colleges), Director (Planning and Development and Administration), Director (Schools) and Director (Model Institutions). They are assisted by Deputy Directors, Assistant Directors, Admn. Officers and other ancillary staff.

Immediately after its inception, the Directorate started acquiring plots from CDA for construction of educational institutions in different sectors and initiated development of these institutions in a phased programme and established 23 schools and 2 (Male and Female) colleges upto 1973-74. In June, 1974, 139 rural schools were taken over from the Government of Punjab . One College for Men housed in H-9 sector was also taken in the fold of Federal Government in 1974.

Expansion of educational facilities continued over the years and at present there are 419 institutions working under Federal Directorate of Education.

Functions of the Federal Directorate of Education

i. To provide educational facilities to both urban and rural population of Islamabad.

ii. To assist the Government in the implementation of educational policies.

iii. To prepare the development schemes/plans for approval by the Government in a manner to cope with the increased demand of education and to improve the existing facilities.

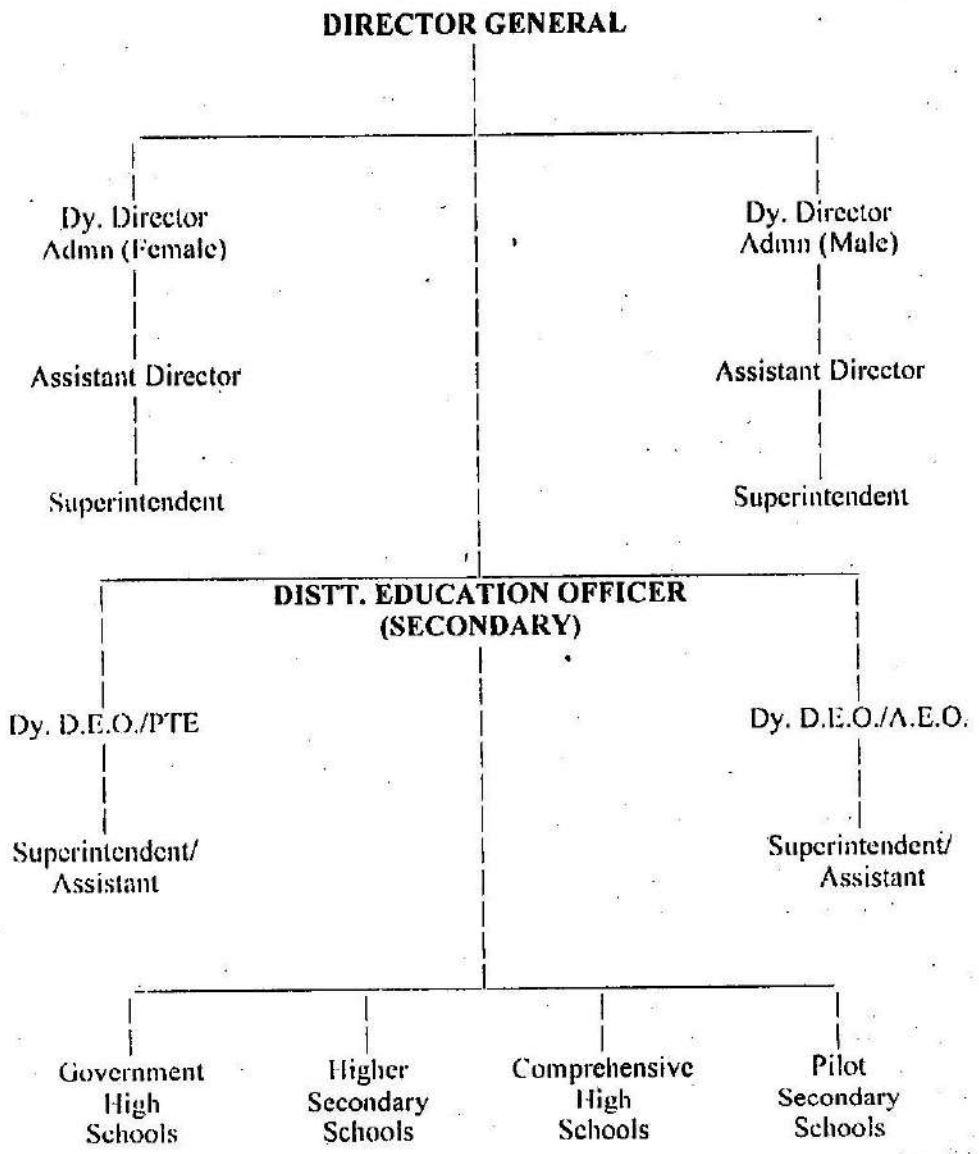
iv. To ensure effective administrative and academic control over the institutions by a regular system of supervision and inspection.

v. To keep effective control on the revenue receipts and expenditure and to ensure proper audit of all Government money by the A.G.P.R.

vi. To arrange professional guidance and training of teachers, to other staff.

vii. To arrange co-curricular/welfare activities for the students.

3.2 Organisational Structure of Federal Director of Education (Schools)



ORGANIZATIONAL CHART OF THE FEDERAL DIRECTORATE OF EDUCATION, ISLAMABAD

DIRECTOR GENERAL (EDUCATION)

- Stenographer 1
- L. D. C. 1
- Driver 1
- B-1 2

Director (Planning & Development)

- Stenographer 1
- Driver 1
- B-1 1

Plann. and Dev. Branch

- DD (P&D) 1
- AD (P&D) 1
- AO 1
- S/Typist 1
- Asstt. I/c 1
- Tech. Asstt 1
- LDC 1
- B-1 1

Exam. & Scholarship Br.

- Registrar 1
- A.O. 1
- Asstt. 2
- Acctt. 1
- US/Typist 1
- U/Typist 1
- S/Typist 1
- G/Oerator 1
- B-1/2 2
- Senior Offset Machine Man 1

Audit Branch

- Accts.Offr 1
- A.O. 1
- Asstt. 1
- U.D.C. 1
- B-1 1

Director (Admn)

- Stenographer 1
- Driver 1
- B-1 1

Admn & Coord Br.

- AD(Coord) 1
- AD(Admn) 1
- S/Typist 1
- Asstt. 1
- L.D.C 1
- D.M.O. 1
- B-1 1
- Chowkidar 2
- S/Worker 2

Male Branch

- D.D. (M) 1
- A.D. (M) 1
- S/Typist 1
- A.O. 1
- A.E.O. 3
- Asstt. 4
- U.D.C. 1
- L.D.C. 1
- B-1 2

Female Branch

- D.D.(F) 1
- A.D.(F) 1
- S/Typist 1
- A.O. 1
- A.E.Os. 3
- Asstt. 5
- U.D.C. 2
- L.D.C. 1
- B-1 2

Budget Branch

- A.D(B&F) 1
- A.O. 1
- Asstt. I/C 1
- Asstt. 2
- L.D.C. 1
- B-1 2

Director (Religious Education and Academics)/Colleges

- Stenographer 1
- Driver 1
- B-1 1

Acad & Tech. Br.

- AD(Tech) 1
- L.D.C. 1
- A.D(Ae) 1
- L.D.C. 1
- Asstt. 1
- U.D.C. 1
- B-1 1

Phy. Edu Branch

- A.O(Read) 1
- A.D. 1
- L.D.C. 1
- B-1 1

Gen. Edu. Branch

- (A) Cash/Store
- U.D.C. 2
- B-1 1
- (B) Receipt & Issue Branch
- Asstt. Inch. 1
- Asstt. 1
- L.D.C. 1
- D/Rider 1
- B-1 1

Colleges Branch

- D.D.(C) 1
- S/Typist 1
- A. O. 1
- Asstt. 3
- U.D.C. 1
- L.D.C. 1
- B-1 1

Director (Model Colleges)

- A. D. 1
- A.O. 1
- Assistant 2

Admn-II Branch

- A. O. 1
- Asstt. 2
- S/Typist 1
- L.D.C. 1

SUMMARY

Director General Education	1	U.S/Typist	1	Stenotypists	6	U.D.C.	3
Directors	4	A. E. O.	6	U.D.C.	11	Driver	2
Deputy Directors	4	Asstt. Incharge	2	L.D.C.	12		
Stenographers	4	Tech. Assistant	1	Driver/D.R.	8		
Asstt. Director/Registrar	11	Assistants	25	Gestetner Operator	2		
Admn. Officers	10	Accountant	1	B-1/2	26		
Officer	1			Urdu Typist	1		
				Senior Offset Machine Man	1		

GOVERNMENT OF PAKISTAN
FEDERAL DIRECTORATE OF EDUCATION

NUMBER OF INSTITUTIONS (1997-98)

LEVEL	URBAN			RURAL			GRAND TOTAL
	BOYS	GIRLS	TOTAL	BOYS	GIRLS	TOTAL	
F. G. Primary	-	65	66	71	80	151	216
F. G. Middle	01	06	07	17	22	39	46
F. G. Secondary	14	16	30	26	23	49	79
F. G. Higher Secondary	02	03	05	06	02	08	13
F. G. Degree Colleges	04	03	07	-	-	-	14
Islamabad Model College	07	07	14	-	-	-	55
Mohallah/Mosque Schools	-	-	-	-	-	-	55
Total:	**28**	**100**	**128**	**120**	**127**	**247**	**430**

Beaconhouse School System

The Beaconhouse School System has its origions in the establishment of Les Anges Montessori Academy, which was founded in 1975. As soon as the Government of Pakistan permitted the establishment of private schools, the first Beaconhouse Public School was set up in Lahore so that the students of Les Anges would be able to continue and complete their schooling in the same type of educational environment.

Les Anges Montessori Academy, the feeder nursery for Beaconhouse Public School, Lahore, was established in Lahore in November 1975; Beaconhouse Public School, Lahore, followed in April 1978. Beaconhouse, Karachi was established in January 1979; Beaconhouse, Islamabad, in April 1982, Beaconhouse, Rawalpindi and Beaconhouse, Clifton, Karachi in 1985 and Beaconhouse, Peshawar in 1986. Since then, schools have been opened in Steel Town, Hyderabad, Quetta, Multan, Faisalabad, Satellite Town (Rawalpindi), Gujranwala, Hafizabad, Sheikhupura, Gujrat, Abbottabad, Wah Cantt., Sargodha, Jhelum, Sadiqabad, Rahimyar Khan and Bahawalpur, and further Branches have been opened in Lahore, and Karachi bringing the total number of branches in the country to 83 in 1998. As we go to press, the student strength of the System as a whole is nearing 35,000 and we have a teacher to student ratio of about 1 to 15, a figure that compares favourably with international standards.

Beaconhouse: Organisation and Resources

A school that is part of a *System* has many advantages over a school that operates on its own:

* The System provides a wide variety of staff development programmes.

* New ideas and improved methods spread readily from one school to another.

* The Head of the school is relieved of much routine administration, and is able to concentrate more of his/her energies on the academic and educational aspects of the school.

* And, of course, many parents welcome the ease of inter-city transfer of their children from one Beaconhouse School to another.

Regions

The Beaconhouse School System's Head Office remains in Lahore, where the System began. The growth of the System, however, made it necessary to divide the administration into three Regions: a Northern Region based in Islamabad, a Central Region based in Lahore, and a Southern Region based in Karachi. The Regional Offices act as academic support centers and are responsible for coordination, teacher training, school evaluation, and planning and development activities in schools in the respective regions. Each school is administratively independent unit headed by a Principal/Head Teacher. The school operates under the policy and guidelines provided by the Head Office.

Staff Development Centres

The Staff Development Centre is a vital part of each Regional Office. Its purpose is to provide training and co-ordination for our teachers, and to assist them in becoming ever more proficient in their work. Each Centre has a well-stocked library of educational books, journals, video tapes and other resources, plus reprographic equipment, rooms for meetings, workshops and seminars, and an experienced staff. Regular co-ordination meetiongs of Heads and teachers at all levels take place at each Centre.

Staff Training

The Beaconhouse-Bradford University Link

Well-trained teachers are the backbone of a successful school. Our in-service training for teachers is designed to meet this need and has been growing and developing steadily for several years.

Our most ambitious in-service training programme so far, is being run in conjunction with the Department of Teaching Studies of the University of Bradford in the U.K and has already contributed to the professional development of our staff. Many teachers from throughout the System are taking part in specially designed courses, leading to the Bradford University Certificate in Professional Studies in Education, which can be followed by an Advanced Diploma and then by an Honors Degree. These courses are very practical and concentrate on good teaching practices, one of the aims being that each student should be an active participant in his or her own education. Final assessment and validation of each participant is carried out by visiting members of the Department of Teaching Studies of Bradford University, thus ensuring that standards of international quality are maintained.

Besides this, induction courses are held for new teachers and workshops are organized to deal with more specialized needs. Beaconhouse teachers also take advantage of local resources where these are available, such as the Teachers' Resource Centre in Karachi.

Foreign Experts

In order to keep abreast with areas where essential educational research has been carried out in other parts of the world, or when specialist skills are needed, the Beaconhouse School System has not hesitated to call on the services of experts from overseas. Some of these experts are on our permanent staff and others have visited for varying periods. Their advice and assistance has been of great value in improving our curriculum design and development, in academic administration, in our in-service teacher training, in personnel evaluation and in many other related fields.

Head Teacher Training

In the past, all our school heads used to train on-the-job which worked fairly well up to a point. In the rapidly changing educational environment, Head Teachers all over the world are having to train into the latest methodologies and techniques of educational administration. We have developed our own in-house expertise in this area, and our Head Teacher training has already begun.

Beaconhouse Academic Conference

The Beaconhouse Academic Conference meets at intervals to consider academic matters affecting the Beaconhouse School System as a whole. It is attended by all Directors, Principals and Head and Senior Teachers of schools in the Beaconhouse School System. Over the last ten years it has grown in size, from a small group who could all sit round one table, to a major conference with an attendance of almost two hundred.

Academic

General

The objective of the Beaconhouse School System is to provide sound and broad-based academic education to all its students. To facilitate this, the School makes the learning process more and more student centered. The students are required to be active participants in their own education and not just passive receivers of instruction.

School curriculum

The curriculum reflects the School's belief that the students should be exposed to a wide variety of disciplines and experiences. In order to achieve this goal, the School gives utmost importance and priority to selection of its curriculum and syllabus and may modify or tailor the curriculum and syllabus to maintain the high standard of education offered to its students. The main subject areas covered up to and including Lower Secondary levels are English, Urdu, Mathematics, Science, Social Studies (including History and Geography), and Islamiat. In the Senior Secondary and A-level Classes, a guided choice of subjects is available, allowing students to concentrate their attentions on, for example, Science for Engineering or Medicine, or Business Subjects.

Curriculum development

Work on the development of a curriculum, especially designed for Beaconhouse, was iniated in March 1997. The curriculum document, when completed, will be the most significant achievement of Beaconhouse. It will be the first of its kind in Pakistan, based on indigenous research suited to our educational needs. The curriculum document may be considered of value by other schools in the private and public sectors as well, and perhaps, it could lead to the forming of a National Curriculum in the future.

Religious and cultural education

There is a concern among some sections of the public that schools using English as the medium of instruction may not devote enough time to the teaching of Islamiat and other subjects related to the life and culture of Pakistan. At Beaconhouse, close attention is paid to the teaching of Islamiat (for children from Muslim families), Urdu and Pakistan Studies and well-qualified teachers are employed for the purpose. The School realizes that if insufficient attintion is paid in this respect, the students will be ill-prepared to meet the demands of the society in which they have to live. These subjects are, therefore, compulsory and the School takes pride in its instruction.

Libraries

It is the aim of Beaconhouse to provide well-stocked libraries in all schools. The bulding up of a large and versatile library takes time, but the development of school libraries, to act as the main resource centre for each school, is one of our prime targets. Most schools now have a wide range of excellent books and magazines available for students to read and borrow, and an accelerating programme of continuous expansion is under way throughout the System.

Kitchin laboratories

Modern and fully equipped kitchen labs are being set-up in schools where they have introduced Food and Nutrition as subjects for the 'O'levels.

Public examinatios

For well over a decade the Beaconhouse School System has entered candidates for the university of Cambridge G.C.E. 'O' level examinations and for the Matriculation Examinations offered by local Boards. Schools in Lahore, Karachi and Islamabad also offer 'A' level facilities for students. Subjects offered in these examinations vary slightly from school to school, according to local and regional requirements.

The great majority of Matriculation and 'O' level candidates have achieved excellent results over the years, thus enabling them to gain admissions into the leading colleges and universities in Pakistan, as well as in the U.S.A and U.K.

Laboratories

It is firmly believed that the best way for students to grasp scientific principles is to experience these themselves. All senior Beaconhouse school offering Physics, Chemistry and Biology, therefore, have properly equipped laboratories to prepare students in these subjects. As with libraries, a programme of progressive laboratory development is taking place.

Computer facilities

Due to the demands of modern-day society, computer studies are now offered as a part of the regular timetable in many schools of this System. Beaconhouse is committed to keeping pace with the rapidly changing technology in this field as such is further integrating computer studies into school life by replacing and upgrading the computers used and by assigning more rooms as computer laboratories.

This institution has installed more than 500 computers in schools, of which 250 of the latest Pentium computers were installed in 1997. The process of installing computers is ongoing, since these machines need to be upgraded from time to time to keep abreast with the latest developments in information technology.

By the end of 1998, it is expected that every Beaconhouse student, class II upwards, will have access to computers. They are concentrating on computer literacy, and the next step would be computer aided learning (CAL) in which computers are used to reinforce actual lessons through specially prepared software.

Internal assessment and reporting

A student's academic process is monitored in various ways; informally by the teacher's observation, and more formally by assessment of class-work, tests and examinations. It is realised, however, that even the best designed tests and examinations are able to evaluate only limited areas of a student's development, and the teachers are, therefore, constantly looking for more effective ways to assess and report on the over-all progress of our students.

In all classes a Progress Report on the student is sent to the parents at the end of each term. Parents are strongly encouraged to attend the regular Parent/Teacher Meetings, where they can discuss all aspects of a child's progress in more detail. Where necessary, parents can meet with teachers at other times too, but arrangements for such meetings should be made through the Principal or Head Teacher, and not directly with the teacher concerned.

Selection

In classes up to and including Class VIII, all students follow the same curriculum. At the end of Class VIII students are selected to continue either to the Cambridge or to the Matriculation stream.

Promotion

In normal circumstances, a student is promoted to the next class at the end of a school year. This promotion depends on his/her overall performance throughout the year, and not solely on any final test or examination.

If a student's progress and performance is unsatisfactory for example, if (s)he has failed twice to obtain promotion at the end of a school year, the Head of the school may ask the parents to withdraw him/her from the school.

The decision of the Head of the school will be final in these matters.

Merit Scholarship Scheme

A Merit Scholarship Scheme was announced in the newsletter from the Chief Executive, Beaconhouse School System on the occasion of Pakistan's 50th Anniversary of Independence on August 14, 1997. The Merit Scholarship has been introduced and is effective from August 98. Scholarships are based on the performance of students and are awarded after the declaration of results for each Academic Session.

The purpose of the Merit Scholarship is to reward the achievements of outstanding students at the secondary school level through a scholarship leading to a reduction in the tuition fee. Only those students will benefit from this scheme who meet the laid down criteria for the award of Merit Scholarship.

School Evaluation

The institution has set-up a systematic school monitoring and evaluation programme based on modern principles of assessment and development in schools. It has trained teams of school evaluators responsible for the evaluation of schools throughout the Beaconhouse School System. This evaluation is carried out at regular intervals and schools are evaluated against pre-determined standards. These standards will be continuously revised keeping in view the rapidly changing educational needs.

Beaconhouse Regional Office, Centre, Islamabad	*Beaconhouse School System*, Printing and Publishing Department of Beaconhouse School system, The Image Bank, Lahore, 1996.	pp. 4–11

3.4 Certificate of Professional Studies in Education

Introduction

Aim

To provide a foundation course of professional studies in education which supports teacher development within the context of the school.

Objectives

Through participation in the core programme a teacher will:

1. Develop her/his understanding of the role of teacher.

2. Identify some of the issues involved in managing learning.

3. Be aware of some of the principles underlying the theory and practice of education and the management of learning.

4. Demonstrate competence in managing learning in the classroom.

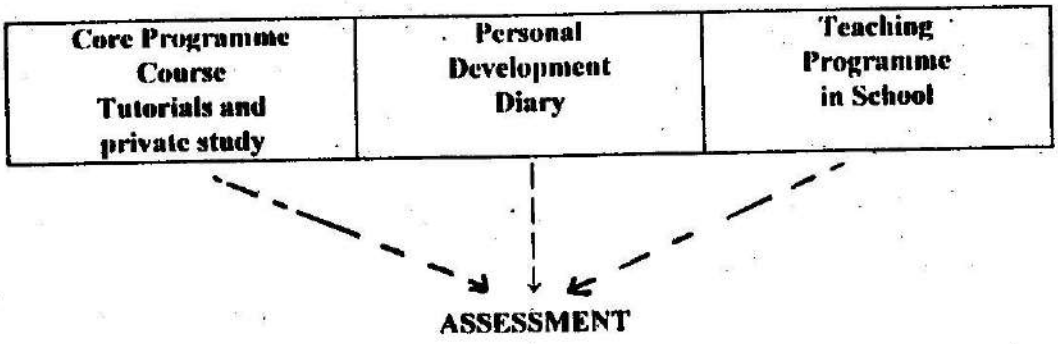
5. Demonstrate an ability to link principles and practice through the process of reflection and analysis.

6. Show willingness to extend and develop current practice in the search for more effective learning.

7. Demonstrate a commitment to equality of opportunity in educational provision in her/his work.

Course Programme

The course comprises a number of elements which together provide the framework for assessment.



3.5 The Teaching Programme

Teachers will be expected to extend and develop professional skills in their work with students in the classroom. Managers will be expected to extend and develop professional skills in their work within a School or System.

The course is taught in a way which models good practice. The experience of the group is used to demonstrate the complexity of managing learning. Together the

processes of learning are explored. Assessment and evaluation are raised experientially throughout the course. The course is tailored to the needs of participants and the content and teaching approaches are negotiated with them. It is a student centred programme. There are no secrets or hidden assessments. Teachers are expected to take responsibility for their learning and are expected to participate in the assessment of their own work identifying and acknowledging their personal characteristics as teachers. This will enable each teacher to prepare a personal action plan for further study and future development.

The Certificate Course

The task of the teacher is to help others to learn effectively. To set goals for learning, teachers should have a broad view of education, of assessment and evaluation. The certificate course provides a foundation in all these areas. It comprises a number of interrelated study units all of which focus on classroom practice and the school.

Unit 1

Education, the curriculum and the school.

Unit 2

Focus on teaching and learning.

Unit 3

Managing learning in the classroom.

Unit 4

Assessment

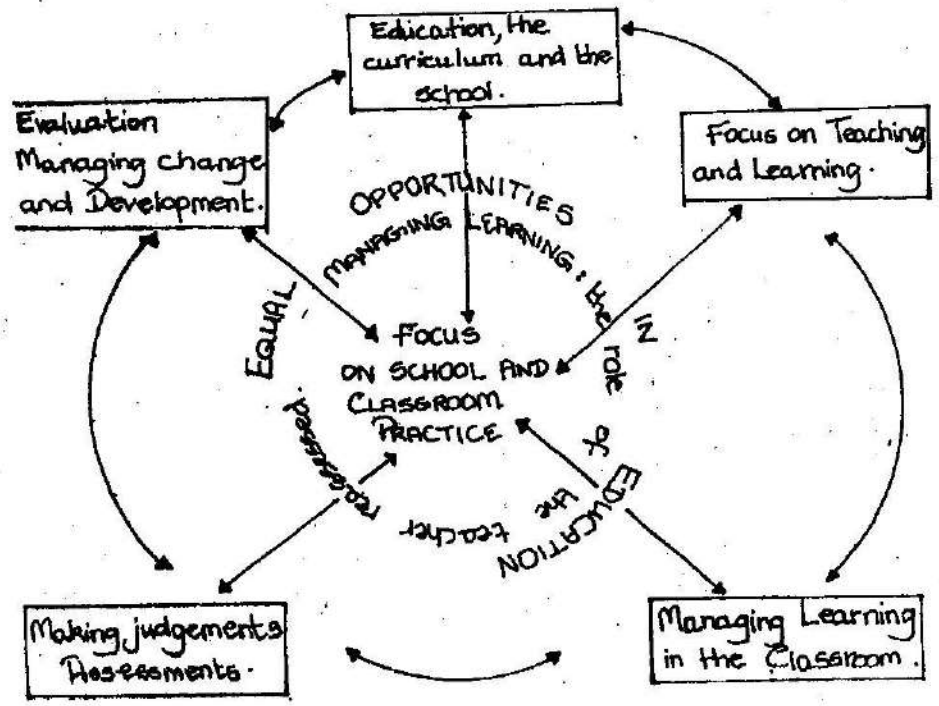
Unit 5

Evaluation: managing chance and development.

Two Additional Themes Permeate the Course

1. Equal opportunities in education (also addressed as a specific issue in Unit 3.)
2. Managing learning – the role of the teacher reassessed.

The course requires teachers to link theory and practice in their work and the programme comprises a number of elements which together provide the framework for assessment.



3.6 Assessment

Criteria for assessment relate directly to the objectives of the course. Teachers must demonstrate progress and development in each dimension. They must, in addition, meet the scheme criteria for success – evidence of reading, reflection and action.

1. A teacher will have developed her/his understanding of the role of teacher.

2. Will be able to identify some of the issues involved in managing learning.

3. Will be aware of some of the principles underlying the theory and practice of education and the management of learning.

4. Will demonstrate competence in managing learning in the classroom according to set criteria.

5. Will demonstrate an ability to link principles to practice through the process of reflection and analysis.

6. Will demonstrate a willingness to extend and develop current practice in the search for more effective learning.

7. Will demonstrate a commitment to equality of opportunity in her or his work.

Evidence will be sought from

1. The teacher's diary and the teacher's own personal assessment of her/his progress.

2. The Course Tutor's assessment.

3. Classroom observation and discussion.

In the case of Head Teachers, Coordinators and Administrators, evidence will be sought from the work they initiate within their organisation to promote these principles amongst teachers and within schools.

Assessment is moderated by the External Assessor who is required to ensure that teachers achieve the standard set for the award of certificate by the validating body in the

United Kingdom.

University of Bradford	*Bradford Accrediation Scheme in Education.*	pp. 3-10

3.7 The City School

The City Schools in Pakistan: 1978 Through 1998 and into Tomorrow

Background

Until the late 1970's the provision of English-medium education was very limited with only a few such elite of Pakisan's society. With the denationalisation of private schools in 1978, parental demand for English-medium education has been responsible for rapid growth in this sector of education.

Beginnings

The first branch of TCS was established in Karachi in 1978. The implementation and maintenance of rigorous standards in both the academic and administrative spheres gave TCS a reputation for quality education that enabled it to complete with long-established schools. Today, there are more than 60 branches spread throughout Pakistan.

Mission Statement

Our Goal
Our Philosphy
Our Commitment
Our Culture

The School

History, Philosophy, Organizational Structure, Administration, Goals and Objectives of TCS, Amenities, Extra-curricular Activities, Admission Procedures, Education System at a Glance.

History

The City School was founded in Karachi in 1978. As it evolved and grew, its name came to be synonymous with the qualities of vision, action and change which have made it a unique force in the field of education in Pakistan today.

As parents became increasingly discerning in their search for ever higher standards of academic excellence for their children, more and more branches of The City School opened their doors. Progressively Senior educational levels were accommodated, with the major emphasis continuing to be placed on the latest teaching techniques and on a curriculum comparable with the best in the world.

During the 1980s, The City School continued to grow nation-wide, every new branch subscribing to the common commitment to provide equal learning opportunities for students and to maintain standards of professional excellence in the recruitment and training of teaching staff. This latter objective led, even in the formative years of the School, to the In-service Faculty Training.

During this decade, matriculation classes as well as Oxford/Cambridge 'O' and 'A' Levels were introduced with The City School becoming a registered examination centre for these British examinations.

In 1993, this state of affairs persuaded the management of The City School to initiate its Higher Education Programme (H.E.P) in Karachi, in response to the desperate need for such a college. The Northern Consortium of British Universities and The City School agreed on a number of degree courses as well as on a one year Foundation Course, through which second year intermediate students could obtain 'A'-Level equivalents.

The establishment of the H.E.P. represents a quantum leap for The City School, which now caters for students all the way from Pre-Nursery through the first year of a British degree.

Today, The City School has multiple Schools and a continuous expansion programme. The prestigious campus of The City School - PAF-Chapter, currently being purpose-built, is the newest acquisition and unquestionably a model of its kind.

The history of The City School embodies its founder's awareness that change and evolution are integral to the essence of education.

Philosophy

A child is not a stranger, one simply to be observed from outside. Rather, childhood constitutes the most important stage in an adult's life.

Embodied in The City School's motto is the philosophy by which it lives and the tradition it passes on to students from year to year: "I AM - TO LEARN" is an expression of the School's unshakeable belief that all of life is a learning process and that each child is a unique individual with the inalienable right to develop his or her fullest human potential. All academic and extracurricular activities are designed to create that special harmony which will stimulate every student to explore, quesion and analyse the world of the classroom and beyond, to become in the truest sense a contributing citizen of tomorrow's world.

3.8 Goals and Objectives of T.C.S.

Goals setting is the norm at all levels. The Directorate, spear-headed by the Managing Director, sets clear-cut goals and objectives on a regular basis.

Regional Directors, Coordinators, the Dean, Principals and Heads of Schools are expected to set their own goals and objectives, clearly in line with T.C.S. policies, systems and administrative controls and to work these goals through successful conclusions and the betterment of academic standards.

As each set of goals and objectives is achieved, they are replaced by new ones, which stretch the goal-setter further without being unrealistic and non-achievable. The result is that a freshness and vitality permeates the whole organisation, enhancing self-esteem and producing positive results that strengthen and invigorate the learning environment of staff and students alike.

3.9 Organizational Structure

The school is society's instrument for moulding the young

For better administrative effectiveness, The City School is divided into three regions: The Head Office and the Central Regional Office are both situated in Lahore, the Northern Regional Office is in Islamabad and the Southern Regional Office in Karachi.

While minor modifications are occasionally necessitated to suit local needs, the School makes every effort to maintain a uniform administrative policy and system; and a consistent curriculum is applied to all the schools encompassed within the national network. This promoted comparable levels of academic performance throughout the network.

Each region has its own Regional Director and administrative staff, but there is close liaison between the three regions. Regional Board Meetings are held regularly to coordinate, discuss and review academic and administrative matters. The heads of schools are responsible for the day-to-day administration of their respective branches and the work of their staff. The Regional Directors work closely with the Academic Coordinators and the Heads of Branches, thus optimising the effectiveness of the management network.

Along with the close coordination, school heads have the autonomy to develop their individual institution according to their needs and talents.

Regional Directors maintain regular and direct contact with the Managing Director.

Syllabus Islamic Studies

Pre-Junior Section, Junior Section, Prep Section, 'O' Level Section, Matric Section, Intermediate, 'a' Levels.

Syllabuses and curriculum are closely mentioned and structured to suit the needs of tomorrow's world. Educationists from abroad are an integral part of the academic team and make an important contribution according to their fields of expertise.

The City School students can take advantage of inter-branch and inter-city transfers. Academic coordination nation-wide simplifies the movement of professionals and their children, and this is evidenced by the success of students where they study within the system.

Curriculum

The curricula and syllabi are constantly upgraded for all levels and in all subjects. At the same time, consideration is given to areas of study requiring specialist attention.

The early childhood education programme is focused on developing children's skills through activity-based teaching methods.

Teachers are observers and motivators who encourage children to progress through exploration and hands-on experience. The learning programme is based on topic webs, where all aspects of the syllabus are integrated into a whole rather than focusing separately on the various parts.

The school is registered as an examination centre for the Cambridge and examination boards, and offers GE 'O' and 'A' Levels courses, in all the three regions.

'A' Level Education prepares students for professional carreers or tertory education in colleges and universities around the world.

English General Paper (A/O-Level) must be taken by all students. Some of the subject combinations may not be offered in all 'A' level sections.

'A' Level studies have long been established as a recognised route to the university. Three, or sometimes two subjects are studied for two years following the 'O' Level examinations.

Examinations are held once a year in the summer.

All students must be registered in August. The course commences in September. The minimum qualification for admission is five 'O' level subjects including English.

In addition, it is necessary to have a report from the previous Head of School confirming the suitability of the student for the intended course.

Syllabus

Syllabuses are prepared for all levels and in all subjects by the Academic Directors and Regional Curriculum Committees in consultation with Teachers and Heads of Schools and are constantly upgraded.

G. C. E. Ordinary 'O' Levels and G. C. E. Adanced 'A' Levels are offered by The City School which is a registered examination centre for Oxford and Cambridge Universities.

The School also offers the National Matriculation Examination and almost all our schools have Matriculation streams.

Parents and students are informed of 'O' Level and Matriculation selection at the end of the Prep-III (Class VIII) year. Discussions are held with parents and the aptitude of students and previous examination results are reviewed. A decision to enter either 'O' Level or Matriculation classes depends upon:

- Parental choice
- Prep III examination results.
- Recommendation by the Head of School.

Parents should note that transfers from the O-Level stream to the Matriculation stream will not be permitted after the first term of Senior I, (Class IX) and no transfers from the Matriculation stream to the O-Level stream will be allowed after the commencement of Senior-I.

'O' Level examinations are usually held in May and June, each year.

Islamic Studies

Due emphasis is given to Islamic Studies. Islamiat periods have been allotted in time table throughout the School at every level. In addition, girls and boys frequently lead the School in prayers and the morning assembly always begins with a recitation from the Holy Quran. Milads are held from time to time, and all religious occasions are commemorated in the City Schools.

- Study in Pakistan for a *British University (Honours) Degree Foundation Year.*
- Study in Pakistan for a *Foreign Degree Foundation Year, First year Degree* (Earn Credit for Transfer to Leading American University).

Study in Pakistan for a *British University (Honours) Degree.*

Foundation Year

The City School in agreement with twelve U.K. universities offers a Foundation or Access year which enables the students to attain equivalency with A-Level students. The course lasts for one academic year (September to June) and successful completion enables a student to progress to the first year of the Degree with our Higher Education programmes or proceed to any of the 12 British Universities or an affiliated University.

Study in Pakistan for a Foreign Degree (each Credit for Transfer to leading American universities).

The City School through its Higher Education Programmes is offering one or two years of study in Pakistan which will allow Credit and Time Transfers with major universitires in the USA.

- ***Kansan University (KU):*** *Lawrence, Kansas*
  Rates among the TOP USA universities in the number of National Merits students enrolled.
- ***Univerisity of Missiouri (UMKC):*** *Kansas City*
  A nationally respected leader in research and teaching and a pre-eminent campus for professional education.
- ***Baldwin - Wallace College,*** *Berea, Ohio.*

Foundation Year

A Foundation Year gains A-Level equivalence for Intermediate students.
Science and Commerce subject options available.
Upto 60 credits may be earned through the multiple subjects in our courses making it possible to shorten the study time in the USA by as much as two years.

First Year Degree

A one-year degree course for A-Level and local degree students offering credit transfers.

Course Offered in First Year

Accounting
Computer Science
Business Management
Economics

Scholarships are possible for meritorious students to complete their studies in the USA.

The graduating last year, (1996) in the United Kingdom of our first class of students (1993-94) who transferred from our Foundation and First University (Hons.) Degree Years to any of twelve widely recognised British universities forming the Northern Consortium (U.K.) and some of whom have remained in British to do further work towards Diplomas and Masters.

Educational links are being established with leading U. S. universities.

3.10 Staff Development

The Academic Staff

Competent and qualified teachers are an integral part of any good school. At The City School meticulous care is exercised in the recruitment of academic staff in all categories. As such, so that the school is manned by a highly qualified and experienced faculty, proficient in their respective fields. In the Nursery Schools many staff have the Montessori Teaching Diploma as well as having a Bachelor's Degree. In the Junior Schools all teachers have a Bachelor's or Post-graduate Degree while a Master's Degree is a necessary prerequisite for subject teaching in the Senior School. In addition, all teachers have extra-curricular skills through which they generate lively, informative programmes and enthusiastic participation from the student body.

Whatever affects a child, affects humanity, for it is in the delicate and secret recesses of the soul that education is accomplished.

The City Schools have fine staff development programmes, including international diplomas and degrees from University of Strathclyde, Jordan Hill Campus, Scotland, a renowned overseas teacher-training institution.

Teacher Resource Development

High on the priority list at The City School is the continuing professional development of the teaching staff, providing the needed stimulus for constant improvement of teaching techniques and curriculum content. A commitment to participate regularly in workshops and certificate courses, organised by heads of schools,

Regional Directors or recognised professional education bodies, is another pre-condition for appointment of the teaching staff.

The City School is probably the only educational institution of its kind in the country with an organised system of regular In-Service Teacher Training (INSET) programmes. These are conducted at School, regional and national levels by in-house staff possessing higher professional distinction as well as by guest trainers.

For each teacher, attendance at a minimum number of INSET days is mandatory. New staff orientation and summer school programmes are additional training forums. Where numbers for some courses are limited, staff are invited to compete for a place.

Post-Graduate Certificate and Diploma Course

In 1996, The City School broke new ground with an innovative staff development initiative. With the assistance of a prestigious British University, the School has established a dynamic and structured Teachers' Training Programme. Inaugurated in July - August 1996 and attended by 40 management and academic heads, certificate courses were designed and conducted by British tutors who visited Karachi specifically for this purpose. All 40 participants fulfilled the assessment criteria and are continuing with the programme. Five Heads of Schools were selected for a Post-Graduate Diploma Course overseas and the expertise they acquired helps feed the talented resource development pool for the teaching staff in Pakistan. The British University will continue to conduct the In-Service Training of the teaching and management staff in Pakistan over the next five years, with selected staff proceeding for an overseas Postgraduate Diploma. Plans are afoot to establish teacher training colleges in the three regional centres in the near future.

Service Awards

The City School honours its teaching staff for both loyalty and merit. At special service award ceremonies, teachers are presented with gold, silver and bronze medals for long service as well as academic distinction in external examination which help enhance their teaching and administrative skills.

Campuses

The unique achievement, of which the city school is justifiably proud, is that it was conceived and evolved as a truly national school system, with consistent academic standards and a uniform administrative policy applied across the entire network.

However, the system has and in-built flexibility has permit it to embrace localised education needs. Branches in the smaller cities often have development patterns which differ from those in the major metropolitan centres. Teaching patterns are adjusted to accommodate these differences. At the same time; the vast range of skills and the variations in the learning needs of students must be addressed to cover all stage from pre-Nursery through A Level. For this purpose, implements a comprehensive teachers reference library.

Purpose Built Schools

The national network of The City School encompasses city-wide networks in each of the major cities. Wherever possible, the School has followed a policy of construction its own custom-designed campuses. This policy offers certain unbeatable advantages, such as permanency of location, a greater potential for out door extra-curricular activities, planning that incorporates special security for valuable facilities and a wider spectrum of resources which contribute to the progress of the students.

The City School-PAF Chapter

In August, 1997 began an entirely new chapter in the annals of education in Pakistan in general and of the history of The City School in particular. This was the inauguration of our latest campus, a joint venture between the city school and the Pakistan Air Force.

This model campus, entirely being developed on a 7.5 acre site just off the flyover on the Shahrah-e-Faisal and Shaheed-e-Millat road junction in Karachi, is already set to be the flagship of the entire school network. When finally completed in the first year of the new millennium, the PAF chapter school will offer premium English-medium education to 3500 students through to A Level. Curently it caters from Junior-I through 'O' Level classes.

Designed and landscaped by one of the country's top architects, this ultra-modern campus will offer academic, cultural, social and sports facilities of unparalleled excellence to its students. On completion, its 250,000 square feet of covered area will incorporate purpose-built classrooms, well-stocked multi-media libraries and science laboratories equipped with the latest apparatus, a custom-designed computer environment and art and music rooms, all planned as well-integrated elements of a

cohesive whole. A 500-seat gymnasium, a high-tech auditorium and an outdoor amphitheatre will enhance and complement the long term academic objectives of the School with facilities which allow limitless scope for extracurricular activities. The separate cafeterias, specially craft areas for senior students and bookshop will add extra distinction to this unique campus.

Source: Regional Office, The City School, I-8/3, Islamabad (1998).

3.11 Activity

If you are going to establish your on school, discuss different features.

3.12 References

1. University of Bradford, *Bradford Accreditation Scheme in Education*, pp. 3-10

2. Beaconhouse Regional Office, Centre, Islamabad, *Beaconhouse School System*. Printing and Publishing Department of Beaconhouse School system. The Image Bank, Lahore, 1996, pp. 4–11

Unit - 4

CURRICULUM DEVELOPMENT AT SECONDARY LEVEL IN PAKISTAN

Written by:
Dr. Sabir Hussain Raja

Reviewed by:
Prof. Dr. M. Iqbal Ch.

4.1 What is Curriculum

Curriculum includes all those activities, experiences and environments which the student receives during his educational career under the guidance of the educational authorities. Hence, curriculum refers to the total education of the child.

There are also some other definitions, such as:

1. ***Dewey's views:***
   Dewy defines curriculum as "Curriculum is identical with all the objects, ideal and principles which enter as resources or obstacles into the continuous international pursuit of a course of action".

2. ***Good's view:***
   Curriculum may be defined as "a general overall plan of the content or specific materials of instruction that the school should offer the student by way of qualifying him for graduation or certification for entrance into a professional or vocational field".

3. ***View of Crow and Crow:***
   According to Crow and Crow, "Curriculum includes all the learner's experience, in or outside school that are included in a programme which has been devised to help him to develop mentally, physically, emotionally, socially, spiritually and morally".

4. ***Etymological Meaning:***
   The word 'curriculum' is derived from the Latin word 'currere' which means 'run'. Hence, curriculum emplies a run away, 'a course which a person runs to reach a goal'. It consists of a number of subjects taught in the school. This is a narrow view point. Hence, it is not acceptable.

5. ***View of Ross:***
   "Curriculum includes cognitive, affective and cognitive activities. Cognitive activities include Language, Literature, Arithmetic, Science, Geography and History. Affective activities include Music, Art and Poetry. Cognitive activities include activities which satisfy the basic needs of food, clothes and shelter which may be called practical arts and capacities of work."

B. R. Satija	*Trends in Education*, 1996.	pp. 469-71

"Thus the term curriculum implies the sum-total of all experiences that are provided to the pupils in order to achieve the objectives of education."

B. R. Satija	*Curriculum Development, Trends in Education*, 1996.	pp. 469-480

How can Curriculum be Specified?

Usually the contents are specified. But we have to specify the learning experiences and behavioural outcome.

Why is a Curriculum Needed?

A curriculum is needed in order to attain the objectives. So objectives have to be defined in terms of expected outcomes of pupil-behaviour. If the curriculum is thus specified, we know the present status of the pupils and the expected outcome and the gap between the two. Then, we know where and how to guide the child through suitable experiences. If we do not have a well-defined curriculum, there is a possibility of the learner and the teacher to be engaged in purposeless activity. The element of ambiguity and vagueness will be avoided if there is a clearly specified curriculum. Then, we will be sure of our base and of the direction and goal of the curriculum and its entire process. The core of objectives is taken care of. Furthermore, curriculum is the set of planned and controlled experiences provided to children and youth to meet the national goals though their intellectual, physical and social growth. Curriculum, therefore, should be interpreted in a much broader sense than limiting to the outlines of courses of syllabi.

4.2 Curriculum Theory

Theory, as employed in this discussion, refers to a set of related assumptions, statements referring to embracing concepts, structure and methodology and their interrelationships, which may be utilized as guides in curriculum development. Curriculum theory, in the form of guiding statements, may be employed as the basis for validating existing practices in curriculum reorganization and point the direction for revisions and building a curriculum for a given society, or for new nations, developing states, or emerging cultures. Curricula are derived from the culture, and, therefore, contain elements of the value system, artifacts, cultural national myths, and attitudes of the people. Circumstances, traditions, existing practices, and cultural values determine the nature of the educational enterprise, formally and informally and influence the

outcomes. Just as curriculum relate to the societies in which they operate, so also do the procedure in developing a curriculum relate to the processes found in the culture. Therefore, all curriculum have evolved according to observable principles whether they were pre-determiend through research or were formulated as the development process.

Following is a general curriculum theory which embodies the beliefs and practices of many students of curriculum design:

With regard to society:

a. The social framework in which the curriculum operates can be analyzed. From this analysis the aims and purposes of society and individuals can be identified and stated as objectives of education.

b. Some of these objectives can be achieved through informal educational agencies; others can be attained adequately only through formal education.

1. ***With regard to the Learner***

a. The individual and societal needs of each learner can be determined from a study of youth and their culture. The aspects of the culture which can and should be transmitted, and those which can and should be changed can be determined.

b. It is possible to plan a curriculum in terms of learning activities which will achieve the predetermined objectives. Principles can be derived from cultural values which act as guides in selecting learning activities.

2. ***With regard to subject matter***

Principles should be developed and utilized for determining the role of various contents areas in attaining the objectives of education. The structure of knowledge and the mode of inquiry of each subject are basic in developing learning activities. The structure of a discipline or subject, if understood, facilitates learning and progress to advanced levels. This structure can be identified and translated into learning experiences for instruction.

3. ***With regard to School Organization***

A single comprehensive high school can provide both exposure and specialization for students with different purposes and who have various level

of ability. These individual differences can be served through a programme of required and elective courses and by means of appropriate methods. Programme of instructions can be constructed which provide for the common interests and the general education requirements of all students as well as the special interests which they may have.

4. ***With regard to Learning Theory***

a. Principles of teaching learning procedures can be derived from learning theories which are based on such concepts as readiness, maturation, motivation, transfer, and individual differences.

b. Principles can be derived for evaluating and validating curriculum materials and procedures in terms of the outcomes (pupil behaviour) to be attained. To aid in evaluation, formalized procedures may be established which may be utilized as models for judging prevailing practices and innovations.

5. ***With regard to Criteria of Construction***

a. There are many approaches to curriculum construction, each influenced by some philosophy of education. Each philosophy suggests certain content, purposes, and methods. Thus, each philosophy has value in curriculum designing. It is not necessary to select one in preference to another. Each one has value, and some curriculum experts use an elective approach.

b. Basic to constructing a curriculum in this manner is the belief in the educability of all youth. The structure of each subject consisting of concepts, principles, information, and relationship can be learned by all youth provided the structure is presented at levels congruent with their experiences and vocabulary.

c. Learning can be facilitated by preparing and providing an orderly sequence of experiences arranged and presented in relation to maturity, readiness and ability of each learner. Also a variety of electives is provided, so that learning may be enriched by providing balance, breadth and depth in an area.

4.3 Curriculum Approaches

1. The subject-centered approach
2. The pupil-and-his-culture approach
3. The problem approach
4. Interaction and the problem approach
5. The structure of knowledge approach
6. The process approach
7. The structure approach
8. The humanities approach

Further reading:

Rudyard K. Bent & Adolph Unrah	*Secondary school curriculum,* D.C Heath and Company, Lexington Massochusetts, 1969.	pp- 1-52, 79-104 & 197-314

4.4 Aims & Objectives of Curriculum Development at Secondary Level

Secondary Stage is a:

1. Terminal stage
2. Preparatory stage for getting higher education
3. Transitionary stage
4. Formal operations stage where logical and reasoning powers can be developed.

As such, the aims and objectives of curriculum development at secondary level may be to:

1. Emphasise learning of concepts and skills.
2. Encourage observation, exploration, experimentation, practical work and creative expression
3. Emphasis on dignity of labour
4. Make the school studies referenced to the individual and social needs.
5. Enable the individual to have such skills inculcated that he becomes a creative, productive, conscientious and law abiding citizen.

Let us benefit from Piaget's theory directly:

Barry J. Wadsworth Mount Holyeke College	*Piagets Theory of Cognitive And affective Development,* Fourth edition, Longman, Newyork, 1989.	p.p 115-120.

Additional Reading:

Ministry of Education (Curriculum wing) Govt. of Pakistan, Islamabad.	*Secondary Education, School Education in Pakistan.* January, 1977	pp. 35-44.

To achieve the objectives, Secondary Education has been divided into five Components as given in the Scheme of Studies for Secondary Education. Component-I is to continue the education of the child about the ideology of Paksitan, its religion and its culture together with English language as a means of international communication.

Component-II enables a child to choose the education direction he intends to follow, either into the sciences as an entry to Engineering, Medicine, Dentistry etc. or into more general subjects suitable for Law, Commerce, Social Sciences etc. or simply for improving home conditions. In the general group of subjects, a large series of elective subjects known as the "Y" list has been introduced with which contains languages, arts, crafts and many other alternatives and a child may choose two options from this list. At present, there are limitations in the choices available due to a shortage of trained teaches in these subjects, but efforts are being directed to overcoming this problem.

Component-III is strictly vocational and is compulsory for all students, male or female, whether proceeding to higher education for the professions or whether terminating the school career after class 10. There are five groups of subjects in this component: Industrial, Agriculture, Home Economics, Commerce and General, and within each group there is a range of options available known as the "Z" list. For example, in the Industrial group a child may choose from electrical, Wood working, Metal Trades and Auto trades ; such topic as Radio

Servicing, Serving of Household Appliances or Welding or Wood turning. Any of these topics will develop manual skills and may have usefulness either in industry, or as a basis for self-employment and in a lost of cases just as a hobby or a useful domestic acquisition.

Component-IV is a recent addition as a means of developing in a child a sense of usefulness to the community, and at the same time actually getting it to do something for the community. The Tree Plantation scheme, for instance, which is quoted will help to restore Paksitan's forests, will help to beatify towns and countryside, will assist in preventing soil erosion and in places may even help to change the climate and improve soil quality.

Component-V is of physical exercise and Civil Defence, First Aid and Nursing to develop national integrity and physical fitness.

It can easily bee seen that these 5 components satisfy all the pre-qulifications stated for secondary education, and particularly striking is the emphasis of vocationalisation.

R. A. Farooq	*Education System in Pakistan*, 1994	pp. 113-114

Curriculum Development

Curriculum development is a cyclic process. It has to be planned, developed, implemented and evaluated in order to be planned again, for making it more meaningful, based upon the results of evaluation. The importance of involving all the concerned agencies in developing the curriculum can be ignored only at the expense of the values of curriculum. Among them the teacher is the most significant agent and plays a key role. He has to be involved in all the stages of development of curriculum which he has to implement. This would help in making it more realistic and practicable and would ensure a better involvement of the teacher in its implementation.

4.5 Characteristic of Curriculum

1. *Totality of activities:* By curriculum it is meant all the school activities which are used to promote the development of the pupils. It refers to the totality of subject-matter, activities and experiences which constitute a pupil's school life. Pragmatists have also included the entire range of education's activities in the curriculum because according to them the child learns by doing.

2. *A means to an end:* It is known that Curriculum is not an end in itself, but a means to an end. Therefore, it is created so as to achieve the aims of education. That is the reason why different educationists have suggested different kinds of curricula to conform to the aims and objectives ascribed to education. It follows that the curriculum will change with every change in the aims of education.

3. *Total school environment:* Curriculum gets influenced by the total environment of the school. It is made up of everything that surrounds the learner in all his working hours. It is "the environment in motion." It refers to the total educational programmes of the school (school environment) including all experiences, activities and learning in which the learner is expected to progress and attain the goals of education.

4. *Totality of experiences:* Curriculum refers to the totality of experiences that a pupil gets in the school (i.e. the class-room, library, laboratory, workshop, play-ground and in the numerous informal contacts between the teacher and the pupils) as well as outside the school. These experiences help him in the development of personality. Curriculum includes not merely syllabus and books, but all those experiences and relationships which get indulged in by the **educand....?** both inside and outside the school. Thus, the syllabus specified by the authority should not be taken to mean curriculum.

5. *Mirror of curricular and cocurricular trends:* Curriculum forms the mirror of curricular and co-curricular trends and is able to reflect the curricular and co-curricular trends in our educational institutions i.e., the courses of study, the aims and objectives of education, the methodology of teaching including teaching aids and evaluation techniques.

6. *Mirror of educational Trends:* Curriculum is the mirror of educational trends. It depicts the total picture about the prevailing educational system. The objectives behind the educational system highlighted through the series of experiences which are provided by the curriculum.

7. *Development of balanced personality:* Curriculum is quite helpful in the development of balanced personality. The activities in curriculum concerning physical, intellectual, emotional, social, economic, aesthetic and cultural development play their role for developing balanced personality.

8. *Process of living:* Curriculum is a process of living in which interaction between the individual and his environment takes place. Curriculum is concerned both with the life of the individual and his environment.

9. *Dynamic:* A good curriculum is dynamic. The needs and interests of the pupils go on changing with the passage of time. For varying needs, different types of activities are required. This tends to necessitate some changes in the curriculum. Curriculum is never static. It has to be different for different students, different classes and different schools. It has to be kept dynamic in order to keep with the needs, interests, abilities, attitude and life of the pupils.

10. *Mirror of philosophy of life:* Curriculum is regarded as the mirror of philosophy of life. It depicts philosophy of life. Democratic or autocratic way of life i reflected in the curriculum. Each way of life is having different philosophy and hence different goals of education.

11. *Achievement of goals:* Curriculum is prepared to achieve some set goals and objectives of education which are set by the society. Curriculum helps in achieving the aims and objectives of education.

4.6 Curriculum and Syllabus

Curriculum is not a simple syllabus, because the syllabus is only verbal and book-oriented while the curriculum is not. Syllabus lays more stress on learning and memory. On the other hand, the scope of curriculum is very wide. It is able to comprehend every aspect of the educand's life, seeks to satisfy all his requirements and to develop every aspect of his personality. Hence, the syllabus becomes part and parcel of the curriculum. Thus, the two terms should not be treated as synonymous. In addition to the syllabus, the curriculum also includes various types of co-curricular activities and the various parts of the educational environment. Though the syllabus forms the basis of curriculum in the school, yet it is improper to restrict the curriculum in this manner.

4.7 Principles of Curriculum Construction

The following principles should be kept in mind for designing the curriculum:

1. *Principle of child-centredness:* The curriculum is to be developed on the basis of the needs, interest, abilities, aptitudes, development level and circumstances of the child. It should impart rich experiences to children for proper development. In other words, it should revolve around the child because the child, forms the core factor in the curriculum.

2. *Principle of integration:* The curriculum should be able to impart knowledge in an integrated way. Activities of teachers as well as those of students should be integrated. Units of teaching should correlate with the life and environment of pupils rather than with narrow bits of information. Traditional compartmentalisation of the subject-matter should not be done.

3. *Principle of totality of experience:* Curriculum is based on the principle of totality of experience. The Secondary Education Commission has rightly said: "The curriculum does not include only the academic subjects traditionally taught in the school, but it includes the totality of experiences that a pupil receives through manifold activities that go in the school, in the class-room, library, laboratory, workshop, play-ground and in numerous informal contracts between teachers and pupils."

4. *Principle of variety:* It is another important principle of curriculum construction. The curriculum should be broad-based, because narrow curriculum fails to develop varied faculties of the individual. At every level, the curriculum should have variety to allow for individual differences and adaptation to individual needs and interests.

5. *Principle of flexibility:* The curriculum should be developed so as to be flexible and adjustable to the needs of the pupils at every stage. It should conform to the changing social conditions, and should reflect the latest developments in educational philosophy and psychology. Flexible curriculum should fit the needs of the children.

6. *Principle of harmony:* In the curriculum, the proper harmony should be maintained between formal and informal education, direct and indirect education, general and specific education, liberal and vocational education, individual and social aims of education.

7. *Principle of community-centredness:* In fact, the curriculum should grow out of community life and should be based on the needs and problems of the members of the community. "It should be a brief submmary of their life." It should reflect all that is significant and characteristic in the life of the community. It should be correlated with the environment of the community.

8. *Principle of activity centredness:* Curriculum has to be constructed on the basis of the activities of the edaucands in which they are interested. It should provide opportunities for play activities, constructive and creative activities and project activities. In other words, it should be based on learning by doing.

9. *Principle of creative training:* When a curriculum is created, attention should be paid to encourage each pupil to develop his creative ability as far as possible. Raymont has rightly said: "In a curriculum that is suited to the needs of today and of the future, there must be a definite bias towards definitely creative subjects." The finest in human culture is the creation of man's creative abilities.

10. *Principle of developing democratic values:* The curriculum should be framed so as to develop democratic values. It is an important consideration in shaping the curriculum for primary, secondary and higher education in all the democratic countries of the world.

11. *Principle of utility:* This is the most important principle underlying the formation of a curriculum. Those subjects are to be included in the curriculum which are likely to prove useful for the educand in his life and by means of which he can be made a responsible member of the society. Hence, vocational, technical and industrial courses should be included in the curriculum.

12. *Conservation principle:* Those subject should be included in the curriculum which find use in preserving and transmitting culture and civilization. The conservative attitude should be selective one. Selection of subjects, topics or activities to be included in the curriculum must be made carefully.

13. *Need for a Radical Reform of School Curriculum:* The Commission rightly stated:

"The explosion of knowledge in recent years and the reformulation of many concepts in the sciences have highlighted the inadequacy of existing school

programmes and brought about a mounting pressure for a radical reforms of school curriculum, a new definition of the content of general education and a new approach to the place of specialisation".

Activity:

Critically analyse the textbook of a subject at secondary level according to principle of curriculum development.

B.R. Satija	*Curriculum Development, Trends in Education*, Anmol publication Pvt. Ltd., New Dehli, 1996	pp. 469-491

4.8 Evaluation of the Curriculum

Curriculum has to be evaluated only at the end, but during the process it also be carried on. This evaluation is of two types:

1. *Formative:* This evaluation is carried on during the process of the curriculum function. This evaluation is most important. This will help us in correcting the deviations from the expected outcome and is a continuous process.

2. *Summative:* This is evaluation done at the end of a planned activity. This concerns itself with the product of teaching-learning process.

4.9 Determination of Curriculum

We take certain factors into consideration that have a bearing upon the curriculum:

1. Pupil: We should begin with the pupil as he is. We should have a fairly good picture of his needs, interests and ability. Pupil's characteristics are the first determinant for curriculum planning and development.

2. *Community needs and Expectation:* The needs and expectations of the community have to be taken into consideration since we are not merely educating the child as a learner, but also as a citizen based upon the needs of the community, and as a member of a particular community. Keeping the needs

or expectations of the community in view will be of help in bringing about social change. Social characteristics should be considered.

3. *Changing Society:* The trends of change have to be noticed. For example, what changes have already taken place and what changes are likely to take place. These are some of the important factors to be kept in view while developing the curriculum.

National Council of educational Research and Training	*In-Country National Training Workshop, Curriculum in Transaction.* 1978	pp. 159-161.

4.10 International Aspects of Curriculum Development

Curriculum re-orientation and development is not confined to any one country or any particular group of countries. It is a world wide process. There is much intensive research, much re-organisation of education, many changes in the courses that are offered, many innovative developments in curricula, in teaching methods and, specially, in school community relationship. Let us consider some of these changes, and their implications, particularly as far as curriculum developments in Pakistan are concerned.

Among the most trenchant critics of the presents system are doctors, psychologists, sociologists and economists. The first to criticise the total neglect of the child and individual and the failure of education to develop both the child's personality and his particular human attributes of thinking, are the men of creative imagination and collective social idealism. The sociologists condemned the educationists for their failure to equip the rising generation effectively to meet and handle the complex sociological problems of the emerging world community. The economists are shocked at the low return from the huge amount of money spent on education. They declare, with justification it would appear, that the low efficiency of school education evidenced by the high repetition rate, the disastrous failure rate and the extremely high drop-out rate would simply not be accepted, not be tolerated, in any other commercial or social enterprise.

But the greatest critics are the most respected and responsible members of the society. They are direct, incisive and insistent in demanding that education should be repeatedly reorganised and re-oriented to meet present, and future, social and national needs and that the changes be made immediately.

The challenge that we, as educationists and curriculum builders, have in fact is to make the right of every body, and particularly of every girl, to life-long integrated education a fact of the present, not a vision of the future. Our task is to provide every child in Pakistan with self-developing, self-fulfilling education with environmentally-oriented, social-renewing and forward-looking education; with freedom-centred, peaceful-co-existence and world citizenship education.

For further study, let us go through:

International Bureau of Education in Geneva	*34th Conference on Education*, November 1973	Report.

4.11 Curriculum Development: The FIRE Paradigm

The parameters of curriculum development are fully revealed in the FIRE paradigm as the letters stand for formulation, implementations, research and evaluation. FIRE is a word with many dynamic connotations. They are to provide light, to warm, to cook and to ignite, but you may readily add others.

Formulation of curricula is not simply the listing of topics. Other aspects may be discussed in detail, later. Here simple general framework is established within which curriculum officers have to operate. To this end, items in the four areas are listed that need to be kept in mind.

1. ***Formation***
   - a. Goals and aims
   - b. Subject array
   - c. Subject weighting
   - d. Subject development
   - e. Selection of content
   - f. Deciding format
   - g. Content analysis
   - h. Trial testing
   - i. Approval
   - j. Editing
   - k. Printing
   - l. Distribution

2. ***Implementation***

a. Preparation of descriptive articles
b. Preparation of teachers' guides
c. Preparation of authors' guides
d. Preparation of publicity material
e. Introduction: phasing
f. Preparation of bridging course
g. Finances: budgeting
h. Down the line training programmes
i. Teachers' workshops
j. In-service training courses
k. Primers: Readers
l. Textbooks : workbooks
m. Equipment and aids
n. Equipment brochure kits
o. Equipment supply distribution
p. Audio-visual aids
q. Radio television lessons
r. Resource centre
s. Curriculum bulletins
t. Liaison with other organisations

3. ***Research***

a. Comparative research
b. Content research
c. Methods research
d. Analytical research
e. Experimental research
f. Survey assessments
g. Textbooks : workbooks
h. Teaching aids : equipment
i. Trial tests : pilot schemes

j. Subject integration multi-disciplinary approach

k. Self-teaching material

l. Learning and teaching

m. Special courses

n. Curriculum laboratories

4. ***Evaluation***

a) Presage evaluation:

Survey,questionaires reviews

i. Comparative evaluations

ii. Special assessments

b) Process evaluation:

i. Checks and balances

ii. Comparative analyses

iii. Micro-testing

iv. Operational testing

c) Product evaluation:

i. Subjective assessments

ii. Objective testing

iii. Standardized testing

iv. Curriculum Evaluation Testing

v. Examinations

vi. Supervision reports

vii. Public opinion statements

4.12 Some Aspects of Curriculum Development in Pakistan

The Education Policy 1972-80 lays emphasis on "designing curricula relevant to the nation's changing social and economic needs, compatible with our basic ideology and providing a massive shift from general education to more purposeful agro-technical education". The Policy also stipulates that "the curricula for the elementary stage i.e.

classes I-VIII and the secondary stage i.e., class IX-XII should be revised in detail to eliminate overloading, emphasise learning of concept and skill and encourage observation, exploration, experimentation, practical work and creative experssion".

Curriculum Development Work Initiated in the Punjab

The Punjab Curriculum Research and Development Centre undertook the task of formulating curricula in the light of directives contained in the Education Policy for classes I–V. In the first instance, Committees in the subject area of Science, Mathematics, Urdu, Social Studies and Health and Physical Education were constituted. The Subject Committee consisted of curriculum developers, subject specialists, teachers drawn from elementary schools and psychologists.

Curriculum Activity at National Level

Simultaneously the National Bureau of Curriculum and Textbooks, Islamabad had also activated itself and it was felt that the Curriculum Workers, Subject Specialists and teachers from other provinces and the Federally Administered Area should be exposed to the rationale behind the Punjab exercise. Accordingly, a 10-day National Seminar was arranged at the Education Centre, Lahore. The Seminar was attended by Curriculum workers and Educationists from all over the country and also by some foreign experts. The Punjab Draft Curricula, in all the subjects, were discussed, subject and item-wise and suggestions and affirmation were exchanged among the participants. Copies of the Punjab Draft Curricula were made available for Curriculum Workers of other provinces.

Keeping in view the directive contained in the Education Policy, a massive shift from general education to a more purposeful Agro-Technical Education was essential. In order to give a purposeful character to our education, the Punjab Curriculum research and Development Centre also constituted a committee of Agro-Technical Education composed of experts and teachers in Technical Education, Agriculture Education and Home Economics. This Committee formulated, after extensive deliberation, its first report on imparting meaningful skills in the domain of wood work, metal work, electricity, home economics and agriculture to students beginning with Class-VI.

4.13 Creation of National Centres in the Provinces

In order to co-relate and coordinate the curriculum activities the National Bureau of Curriculum and Textbooks, Islambad constituted, National Committees in all subjects at the elementary level and a National Committee on Agro-Technical Education for class

VI onward. The composition of National Committees was derived form the Provincial Subject Committee, considered it desirable to establish National Wings in different subject areas at the Provincial Curriculum Bureau. Accordingly, the Provincial Curriculum Centres were allocated different subject areas for further work in the domain of Curriculum Development.

Spaudling, Setch	*Advanced Educational Technologies, Prospective Education*, UNESCO, Paris, 1970	p. 13, Vol. No. 13

4.14 Mechanism for Curriculum Development in Pakistan

Whenever it is intended to frame or revise a curriculum in the country, the Curriculum Wing, Ministry of Education sends the proposal to the provincial curriculum centres. These centres develop or revise the curriculum according to the framework provided by Curriculum Wing. In the provincial centres, the revision or framing of the curriculum is done by the committees. These committees usually comprise subject specialists and persons equipped with pedagogical skills. The draft curriculum is sent to the Curriculum Wing, Ministry of Education, for their consideration and approval. In the Curriculum Wing, the draft curriculum on each subject received from the provincial centres, is put up to the concerned National Review Committee. This Committee is usually constituted for each subject and comprises the nominees of the provincial governments and subject specialists considered suitable for the purpose. The curriculum finalized by the National Review Committee is then put up to the Federal Education Secretary for approval. The approved curriculum is sent to the provincial Textbook Boards for production of textbooks. Various steps involved in curriculum development are listed below:

a. Curriculum Wing requests the provincial centres to prepare draft curriculum for each subject taught in various classes upto Class XII.

b. Provincial centres call in committee of experts, teachers, subject specialists on each subject.

c. Provincial committees prepare curriculum plan.

d. The draft plan is sent to the Curriculum Wing.

e. Curriculum Wing circulates the drafts to the selected teachers, subject specialists in schools, colleges, and other agencies concerned and invites their comments.

f. The comments are reviewed in the Curriculum Wing.

g. The National Committee of Curriculum scrutinizes the drafts in the light of the comments.

h. The Committee submits its recommendations to the Ministry of Education.

i. Education Secretary accords necessary approval.

j. The curriculum schemes duly approved are passed on to the Textbook Boards for preparation of textbooks.

R. A. Farooq	*Education System in Pakistan*, 1994	pp. 34-35

Curriculum Development and Instructional Technology

Traditionally the field of instructional technology is known as "Audio Visual Aids in Education". This nomenclature has had a unique implication which kept the scope of the discipline quite limited until recent years. In many developing countries, audio visual materials are still considered as mere 'aids' which are available to a teacher for use in his lessons. Under this concept he has full discretion to use or to discard them at his will. As such, "Aids" are not considered as an integral part of the entire curriculum process. In the modern approach, audio visual materials are not simply "aid" used to supplement the tradition-ridden syllabi, but are rather integrated into the entire curriculum process and their use becomes an indispensable factor towards the fulfilment of the curricular objectives. According to Setch Spaudling:

> "A true technology of education includes the entire process of the setting of goals, the continuos renewal of curriculum, the trying out of alternate strategies and materials, the evaluation of the system as a whole and the resetting of goals as new information on the effect of the system is known."

Spaudling, Setch	*Advanced Educational Technologies, Prospects in Education*, UNESCO, Paris, 1970	p. 13, Vol. No.3

This new approach towards instructional technology has revolutionised the entire concept of curriculum development. It has ensured a continuous process of renewal of curriculum through utilisation of advanced instructional methodologies. This approach is based on the fact that most of the curricular content can be taught only through utilization of new instructional technology. One can very well see the impact of the new strategy in many of the new centre which are being established in USA and UK. "Instructional Technology' in this sense has become a more profound discipline which reverberates the entire process of educational technology in a society with the overall rate or its development and modernisation.

Dr. Shaukat Ali Siddiqui	*Role of Instructional Technology in Curriculum*	p. 70.

4.15 New Trends at Secondary Level

Introduction of Population Education

According to the definition of the UNESCO workshop on Population and Family Education in Bangkok, "Population Education is a programme which provides for the study of population situation in the family, community, nation and the world, with the purpose of developing, in the students, rational responsible attitutdes and behaviour towards that situation".

The necessity and importance of Population Education has been brought sharply into focus. Different national workshops and seminars have underlined the urgency of the inclusion of this subject within the framework of formal school curriculum. The rate of population growth in Pakistan, approximately 2.6% one of the highest in the world — stands so overwhelmed all over development plans.

Apart from its practical urgency, Population Education can be justified on purely intellectual and educational grounds. The characteristics of population and population change influence every aspect of our life. If it is educationally valid to study animal populations and the global distribution of timber and oil resources, then it is equally important and valid that we include the study of human population in our schools. Population can be approached not merely as a problem, but also simply as a phenomenon that needs to be understood. Looked at this way, this subject is no more open to controversy than any other discipline of formal education. If it differs at all, it is only because it has greater relevance to the students own life, both now and in the future, than any thing etc.

The Population Planning Programme is one aspect of the national effort to meet the challenge of rapid population growth. Population Education on the other hand does not imply the study of the methods of Population Planning. It aims to sensitize the students, who form approximately half the population of Pakistan today, to the colossal pressures of population, without entering into the emotionally charged areas of sex education, and population planning. Clinically oriented family planning programmers are designed to bring about immediate results, but the role of population education is long-term and diffusive.

To study more about Population Education at secondary level, let us go through:

Mrs. Hamidi	*Introduction of Population Education into the Curricula of Primary and Secondary Schools.*	pp. 77-78

4.16 Textbooks

As an important element to organize, the concepts "Textbooks" lay a pivotal role. As a matter of fact, Textbook existed in some form of necessity whenever Education existed in some organized form in connection with the aims of certain society. Hence, the Textbook is not a unique product of Modern Society. Broadly speaking, textbooks should reflect our National Ideology, emphasizing among many of its characteristics those of universal brotherhood, tolerance and justice.

The textbooks provide flesh and blood to the skeleton of curriculum and makes it alive. Textbooks are sometime made to serve the purpose of window dressing of 'decoration', beautifully covering the slips and shortcomings of syllabi. Very often the textbooks tend to highlight those aspects of the curriculum whose very concept remains vague even in the mind of the curriculum framers.

Textbooks are generally produced as the main material for teaching in accordance with the organization of the school curriculum. As a matter of fact, however, teaching is restricted by textbooks, and frequently the organization of curriculum is ruled by them. This is why the production of textbooks has very important meanings at present.

Albert Oliver is of the opinion that the selections should be made from man's total store house of knowledge and a competitive author can do this more effectively than a busy teacher. Generally, textbooks are selected in three basic ways:

1. Free and open selection by school systems/authorities.

2. Approval by state departments of education of many texts which are then chosen at the local level.

3. State-wide textbook adoption.

4.17 Criteria for the Selection of Books

1. Accuracy, upto-dateness and completeness

2. Philosophical considerations

3. Suitability for intended clientele

4. Format

5. Related factors

Textbooks are prepared by individual authors as well as by Textbook Boards in each province of Pakistan under the guidance provided by the Ministry of Education.

Reading:

1.	R. A. Farooq, Dr.	*Textbooks in Education. Education System in Pakistan*, 1994	pp. 85–94

2.	Ministry of Education (Curriculum Wing) Govt. of Pakistan, Islamabad	*Curriculum, School Education in Pakistan*. January 1997	pp. 16–19

Additional Reading:

1.	Ralph W. Tyler	*Basic Principles of Curriculum and Instruction*	pp. 41-53
2.	Oliver and Boyd Edinburgh in association with the Open University Press	*Development of the Curriculum, the curriculum. Context, Design & Development*, 1973.	pp. 370-483.
3.	Hilda Taba Hercourt, Brace	*Curriculum Developments* World Inc; New York, 1973	pp. 1-9 76-85,263-284
4.	Geoffrey Squires Hodder and Stoughton	*The Nature of Curriculum, The Curriculum Beyond School*, London, Sydney, 1987	pp. 1-22
5.	Rudyard K. Bent and Adolph Unruh	*Secondary School Curriculum*, D. C. Health Company, Lexington, Massachasetts, 1969	pp. 1-5, 79-104 & 297-314.
6.	Gomathmani	*Education in the International Context*, 1991	pp. 36-61, 91-96, 205-208
7.	N-Venkat Aiah	*Curriculum -Innovations for 2000 A.D.* 1993	pp. 29-54.

4.18 Self-Assessment Questions

1. While keeping the characteristics of curriculum in view, analyse the curriculum of a science subject at secondary level.

2. Discuss the principles of curriculum construction.

3. Comment on FIRE paradigm of curriculum development.

4.19 References

1. B. R. Satija, *Trends in Education*, 1996, pp. 469–71.

2. B. R. Satija, *Curriculum Development, Trends in Education*, 1996, pp. 469–480.

3. Rudyard K. Bent & Adolph Unrah, *Secondary school curriculum*, D.C Heath and Company, Lexington Massochusetts, 1969. pp- 1-52, 79-104 & 197-314

R. A. Farooq, *Education System in Pakistan*, 1994, pp. 113-114.

5. Spaudling Setch, *Advanced Educational Technologies. Prospective Education*, UNESCO, Paris, 1970, Vol. No. 13, p. 13.

6. B.R. Satija; *Curriculum Development, Trends in Education*, Anmol publication Pvt. Ltd., New Dehli, 1996, pp. 469-491

7. National Council of educational Research and Training *In-Country National Training Workshop, Curriculum in Transaction*, 1978, pp. 159-161.

8. International Bureau of Education in Geneva *34th Conference on Education*, November 1973, Report.

9. R. A. Farooq: *Education System in Pakistan*, 1994, pp. 34-35.

10. Dr. Shaukat Ali Siddiqui; *Role of Instructional Technology in Curriculum*, p. 70.

11. Mrs. Hamidi; *Introduction of Population Education into the Curricula of Primary and Secondary Schools*, pp. 77-78

12. R. A. Farooq, Dr. *Textbooks in Education, Education System in Pakistan*, 1994, pp. 85–94

13. Ministry of Educa-tion (Curriculum Wing) Govt. of Pakistan, Islamabad *Curriculum, School Education in Pakistan*, January 1997, pp. 16–19

[ ]

Unit - 5

EVALUATION AT SECONDARY LEVEL

Written by:
Dr. Sabir Hussain Raja

Reviewed by:
Prof. Dr. M. Iqbal Ch.

Evaluation

The evaluation is an essential part of each system. This is, infact, a touch-stone with the help of which one can assess to what extent the individual can succeed in his efforts and leads to improvement of shortcomings. Educational process is incomplete without evaluation. It tells us what the students know (Ejaz-ul-Haq, 1989).

Pope, (1983) describes evaluation as the means whereby we systematically collect and analyze information about the results of students' encounters with the learning experience. The chief function of evaluation is to understand what is happening in the teaching/learning system, with a view to sustaining, developing and improving it.

Gay, (1985) describes that evaluation is the systematic process of collecting and analyzing data in order to make decisions. The purpose of evaluation is to determine the current status of the object of the evaluation, to compare that status with a set of standards, or criteria and to select an alternative form among two or more to make a decision.

Gronlund, (1985) states that, "Evaluation of pupil learning requires the use of a number of techniques for measuring pupil achievement.... However, evaluation is not merely a collection of techniques — it is a process, a systematic process that plays a significant role in effective teaching — It begins with the identification of the intended learning outcomes and ends with a judgment concerning the extent to which the learning outcomes have been attained."

Shah (1995) says, examinations are an integral part of the entire system of education. The basic role examinations play in educational process can be appreciated from the fact that good examinations motivate pupils, help them know their strengths and weaknesses, and provide opportunities to the teacher to try new methods to improve the teaching learning situation. They serve as means to an end. The objectives of examinations are mainly dependent upon the aims of education. If education aims at producing personnel to fill job, in clerical cadre, the examinations will be set and administered as to achieve this aim. If education is to produce good citizens, patriots, creative and freely-thinking human beings, examinations will test the development of these qualities and abilities in the examinees. The nature of examinations will be determined by the curricula and goals of education.

It is generally thought that our present system of examination does not test pupils in the application of the acquired knowledge and information to new life situations. Thus, pupils pass out from schools and colleges without showing their ability to adopt what they learn. Hence, maladjustment is the result in the case of many graduates when they enter to practical life. Our practice of examination is defective because it does not produce the described outcomes in view of the rapid and recent advancement in the fields of science and technology (Shah, 1995).

Muhammad Khalid	*Evaluation of Secondary School Examination in the Context of Textbooks of Classes IX-X and Perspective Teachers Training in Punjab*, 1998.	pp. 1–4

A possible conclusion: Evaluation can be many things. It can be ascertaining whether we are meeting the targets. And, if not, why not? Should we do more of the same? Should we cahnge? Should we quit? Do the targets make sense? Or, to use a somewhat more formal definition, programme evaluation can be described as a systematic assessment of actions in order to improve planning or implementation of current and future activities. It is one aspect of the intertwined programme management cycle consisting of planning, implementation, and evaluation.

Evaluation seeks to answer three basic questions which should be asked of all kinds of assistance at all levels — project, sector, country programme:

Effectiveness: Are the targets for outputs and purposes being achieved? What are the reasons for success or failure?

Significance: Will the achievement of the targets contribute to economic development or other higher goals beyond the project purpose? To what extent? What are the activity's advantages over possible alternatives? What about side effects?

Efficiency: Do the benefits justify the cost? Are there more efficient means of achieving the same targets?

The primary purpose of evaluation is to assist planners and managers in making

decisions about programmes and projects by:

- verifying the activity's appropriateness and effectiveness in order to permit an informed decision about continuing the activity;

- providing a basis for selecting alternative courses of action; and by

- making lessons learned available for current or future planning.

In brief evaluation is designed to assist management to obtain reasonably *objective* information about projects and programmes in a regular fashion so that lessons learned can be applied to current planning decisions or to future operations.

Evaluation differs materially from monitoring or from regular audits and inspections. The latter are generally designed to appraise operations in order to determine compliance with management controls and regulations. As such, they do not as a rule chanllenge the choice of targets. Evaluation, on the other hand, questions the relevance of the project, challenges all aspects of the project design, examines performance of inputs and implementing agents, measures progress towards targets and may result well in redesign and replanning actions. Audits may uncover inefficiencies in implementation or lack of clarity in targets which concern the planner and manager. Hence, evaluators must keep informed of audit findings and avoid duplication of work in looking at project effectiveness and efficiency. Finally, evaluation also differs. We must consult the following book:

Office of Programme Evaluation United States. Agency for International Development	*Evaluation Handbook.* 2nd Edition. Washington, D. C. September, 1972	pp. 2-3

Formative and Summative Evaluations

Seriven (1972) has divided evaluations into the formative and the summative. The latter are studies that yield information only on bare simple impacts. They report a statistic such as a difference of means or proportions or a regression coefficient that quantifies the effect that has been caused on the outcome of interest, or perhaps they report a significance test that indicates whether the impact should be accepted as zero or non-zero. Such studies may necessarily be extensively elaborated and enormously

complicated by measurement concerns, by the need for many or for ingenious control variables, by complex time series functions, and by the elaboration of treatment and control groups in the design, but the information they yield is limited, fairly narrowly, to quantifying the true impact of the programme on the outcome of interest. In fact, one of the primary reasons why evaluations are not used more by programme personnel is that this kind of information is not enough for their purposes. They frequently deplore being told that their efforts are or are not having much effect, especially the last. What they want to know is why — how to make a weak programme stronger or an effective programme even more effective, or perhaps more efficient. Sub-objectives are the means to that end. It is fairly astounding, in view of such needs, that sub-objective analysis has not become common; yet, it is extremely rare.

In contrast to the summative evaluation, the formative evaluation gives additional guidance, namely, it helps to improve or *form* the programme itself. It can do this by two methods. The first gives no additional type of information, but it provides periodic or even continuous summative feedback rather than providing it only once. If programme personnel feel they know what combinations of things to do to affect the outcome under varying circumstances, they can adjust their activities accordingly. This is commonly done in both the public and private sectors through the use of performance indicators such as changes in the money supply, sales figures, and so on.

The other type of formative evaluation, and the one that concerns us here, provides additional information of a different type (and may do so continuously, periodically, or only once). If the programme turns out to have failed or fallen short in the summative sense, formative evaluation may attempt to answer the question "why". If the programme succeeds in some measure, formative evaluation may attenpt to answer the question, "Were all of the activities necessary, or were some dispensable?" These responsive functions are accomplished by observing subobjectives and activities, as well as the outcome of interest. The sub-objectives and activities, it will be remembered, are outcomes that must be achieved, so that the outcome of interest may be achieved. If it is known that one or more sub-objective were not achieved, a weakness may thereby be pinpointed or, perhaps, some waste motion may be identified. In this fashion, the programme theory is tested and, if necessary, amended. Rarely will the audience for an evaluation consider the only options either to terminate the programme or continue to run it as in the past. Yet, a summative evaluation, which is by far the most common type, does not provide the kind of information that would directly support any other alternatives. The formative evaluation, which rests on the measurement and analysis of subobjectives and activities, on the other hand, operates to suggest actions to change the

programme in certain ways to make it more successful. (Judd and Kenny 1981, p. 603). In addition, as Judd and Kenny (1981) also point out, information on the mechanisms by which a treatment has its impact can help in generalizing the results, that is, in applying the programme to different populations or to similar populations in other settings.

Lawrence B. Mohr.	*Impact, Analysis for Programme and Evaluation.* 1992.	pp. 25-27

5.2 Internal/External Examinations

Ejaz-ul-Haq, (1989) describes that measurement and assessment are generally used to evaluate the students. Generally, two main types of examinations are used to evaluate the students, i.e. internal and external. The internal examinations are conducted by the same teachers who teach the students. The external examinations are held by the boards, universities and other authorized bodies. The students are promoted to next grades/classes on the basis of examinations. The students decide about their career on the basis of examinations. In all fields of education the people are selected with the support of examinations.

Examinations at secondary level in Pakistan are under severe criticism from educationists and general public at large. Our daily newspapers publish criticism about examinations and allege that there is leakage of question papers. Threats are given to examiners, approaches are made to examiners, and sub-examiners to change the awards and merits, etc.

5.3 Textbooks

The teachers have to utilize the textbooks for teaching learning process, as well as the respective textbooks are helpful in teacher's training. So, textbooks are of great importance. Good (1973) quoted by Farooq (1993) defines textbook as any manual of instruction, dealing with definite subject of study, systematically arranged, intended for use of special level of instructions, and used as principal source of study material for a given course.

Bhatti (1980) describes that the textbooks play a vital role in educational set up and promote a harmonious growth of moral, mental and spiritual qualities of young generation. Textbooks should be rich in content and full of required information and knowledge and so attractive in quality and presentation, so that children could forthright

find interest in them. The textbook writing, indeed, is a task which requires technical know-how. Love and hardworking is essentially needed in writing textbooks specially for children.

Textbooks have become all the more important because of the explosion of the knowledge. There is too much to learn. Textbooks provide the services of the experts in the form of concentrated, sifted and logically arranged knowledge which otherwise would not be possible by direct experiences. There are several significant advantages in using textbooks, i.e. they are economical; they help to individualize instructions, help to recognize and provide unity for class instruction, help students to study, to read better, to weight evidence, to solve problems; they improve teaching skills. In Pakistan forty million volumes are produced annually by the provincial textbook boards for students upto intermediate classes. More than fifty per-cent of the publication work is done by private publishers.

For further details, the following sources can be consulted:

R.A. Farooq.	*Examination, Promotion and Certification. Education System in Pakistan, issues and Problems. Asia Society for promotion of Innovation and Reform in Education,* Islamabad. 1994.	pp. 1-18

Muhammad Khalid.	*Evaluation of Secondary School Examination in the context of textbooks of classes IX-X and respective teacher training in Punjab,* April 1998.	pp. 1-8, 41-42

Bhatti, A. A.	*Report on National Workshop in Text Book Writing, Ministry of Education, Govt. of Pakistan,* Islamabad, 1980.	pp. 123-149

Gay. L. R.	*Educational Evaluation and Measurement,* Macmillan Publishing Company, New York, 1980.	p. 6

Gronlund, N. E. & Linn, R. L.	*Measurement and Evaluation in Teaching*, Macmillan Publishing Co., New York, 6th edition, 1985.	p. 3

Shah, R. A.	*Education and Teacher Education in Pakistan*, Pakistan Study Centre, Wahid Art Printing Press, Karachi, 1995.	pp. 83-84

Ejaz-u-Haq	*An Investigation of Reliability of Scoring in the subject of English at Secondary School Certificate Examina-tion of BISE Multan*, unpublished M. A. Thesis, Department of Education, Bahauddin Zakariya University, Multan, 1994.	pp. 1-2

Pope, D.	*The Objectives Model of Curriculum Planning and Evaluation*, Council for Educational Technology, London, 1983.	pp. 192-200

5.4 Evaluative Process in the Educational System

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

Since answer to questions in qualifying examinations are reproduced out of crammed memory and do not require logic, problem solving, inquiry, initiative, or evaluation but simply test the student's ability to recall the content of the subject, the conclusion might be drawn that they tend to defeat the very purpose of modern education and educational values. As one might surmise, they dominate the whole teaching-learning process and thereby the examination. This system, furthermore, has grown to be so important that it might be said to direct, control, and shape the whole structure of

Pakistani society. It is not unthinkable to attribute much of Pakistan's backwardness to the examination system. Much of the turmoil caused every year in the country at the hands of the youth, may be due to anxieties caused by these examinations.

5.5 Examination Reforms, Test Development and Research

Examinations can be divided into two categories: (a) Internal Examinations, (b) External (Public) Examinations.

(a) ***Internal Examinations***

Internal Examinations are held under the direct supervision of the concerned school or college administration. For this purpose, an internal examination body is constituted from the staff including a controller of examinations. The internal examinations are restricted to classes 1 to 8 in the primary and secondary schools. In colleges, the internal examinations are given to the first year and the third year classes only i.e. classes 11 and 13, although some boards and universities hold external examinations for these classes as well.

(b) ***External Examinations***

The Matriculation and Intermediate (Secondary and Higher Secondary) Examinations are conducted by the Boards of Intermediate and Secondary Education. There are 11 boards in Pakistan, at Peshawar, Quetta, Hyderabad, Multan, Lahore, Sargodha, Rawalpindi, Gujranwala, Islamabad and two in Karachi. A board functions under the supervision of its Chairman and each has its own territorial jurisdiction as determined by the Provincial Governments.

The class teachers carry out the evaluation work and the promotion of the students is made on the recommendations of the teachers concerned.

Reading:

Ministry of Education (Curriculum Wing). Govt. of Pakistan.	*Examination Reforms, test Development and Research, School Education in Pakistan*, Islamabad, Jan. 1977.	pp. 51-53

B. R. Satija.	*Examination Reforms, Trends in Education*, Anmol Publications, Private Limited, 1996.	pp. 513-524

Govt. of Pakistan.	*National Committee on Examinations*, Ministry of Education, Islamabad, 1966.	pp.

5.6 Examination, Promotion and Certification

Boards of Intermediate and Secondary Education (BISEs) and universities are the examining bodies. Following certificates/diplomas/degrees are awarded after the completion of certain level of education: Secondary School Certificate (after 10 years schooling); Higher Secondary (after 12 years schooling), Diploma in Associate Engineering (13 years schooling) and Bachelors Degree after 14 years of Education.

There is a public examination system in the country. Some boards and universities are following the conventional system of awarding certificates and degrees on the basis of: Third division (33-44%); Second division (45-59%); and First division (60% and above).

Some boards and universities have introduced grades as: A (70% and above); B (60-69%); C (50-59%); D (40-49%); E (33-39%); and F (Fail-Below 33%). At the same time, there are institutions in private sector preparing the students for 'O' Level and 'A' Level examinations of British Education System.

Accreditation of higher education is determined by the University Grants Commission, Ministry of Education. Accreditation and equivalence of school education (Secondary and higher secondary level) is determined by Inter Board Committee of Chairmen (IBCC), an autonomous organization in the Ministry of Education.

Boards of Intermediate and Secondary Education:

Boards have their Research Cells and research on various aspects of evaluation is regularly carried out to recommend improvements/changes in evaluation system and consequently in instruction.

Provincial Bureaus of Curriculum Development:

These bureaux usually conduct research in specific problems relating to the curriculum concepts, graded vocabulary, alternative methods of literacy programmes. Curriculum Research and Development Centre (CRDC), Lahore has contributed significant number of studies in the areas of Curriculum Evaluation and graded vocabulary for primary school children. CRDC has a lion share in the studies being conducted by provincial bureaux.

For further reading, please consult:

R. A. Farooq.	*Examination, Promotion, Certifi-cation, Education System in Pakistan, Issues and Problems, Asia Society for Promotion of innovation and reform in Education* Islamabad, 1994.	pp. 16-18

5.7 Weaknesses

The existing system of examination is one of the root causes of the general malaise in our education system. At present, there are internal examinations from class I to class IX under which students are failed or passed on the basis of annual tests. There is no system of observing, recording and evaluating the performance, behaviour and aptitudes of the pupils throughout the year. As a result, the passing or failing of students in the annual examinations invariably becomes merely a matter of the pupil's memory.

For further study, let us consult:

Govt. of Pakistan, Ministry of Education, Islamabad.	*Examinations, The Educa-ion Policy 1972-80*, March, 1972.	pp. 31-32

Evaluation is a crucial phase in the teaching learning process. The dynamics of education leading to the realization of specific objectives is, to a large extent, dictated by the evaluation mechanism used. In spite of high priority given to the examination system and reforms suggested in a number of other reports, our gains in examination system are only marginal. The result is, even today, that we are caught in a vicious circle. The circle begins at the badly constructed syllabi, looping through poorly written textbooks and badly conducted teaching-learning process, and ending at a rag-bag system called external evaluation. For students it is an exercise in vain; for teachers it is worthless; for

parents it is braging economic loss; and for the state it is producing manpower of unreliable quality.

For more enlightenment, let us go through:

Ministry of Education Pakistan.	*Examinations and Evaluation, National Education Policy*, 1992.	pp. 69-70

Dr. Mukhtar Ahmed Bhatti.	*Examinations, Secondary Educa-tion in Pakistan, Perspective Planning National Education Council*, Islamabad, 1987.	pp. 123-25

Evaluation makes an important link in teaching-learning process. Apart from a weak delivery system, the examination system is excessively flawed on account of a variety of malpractices. Neither the semester system nor the annual system has been able to stand up to the wide-spread corruptions in examinations. Under a variety of circumstances, the examiners, the paper-setters, the invigilators and the examination departments appear to be equal partners in maintaining the vicious circle of corruption around the public examinations. Even the Boards of Intermediate and Secondary Education have contended with one another in the award of unjustifiably inflated grades to their students. Also in their anxiety to bring their wards to professional colleges, the parents have joined the rat race of nefarious practices. This state of affairs have caused two types of damages: (a) lack of confidence in the results of public examinations, and (b) distortion in admissions to professional colleges.

Reading:

Ministry of Education, Pakistan.	*National Testing Service, National Education Policy*, 1992.	Pp. 29-30.

5.8 Shortcomings

What is needed, is an evaluative system which will overcome the problems of the past, a system which will ultimately change the teaching process. Recognition of the

basic

shortcomings present in the first step in planning is needed. These shortcomings are:

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

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

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

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

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

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

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

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

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

Let us go through:

Ahmed Noor Khan.	*Evaluation Process in the Educational System. Secondary Education in Pakistan*, AIOU, Islamabad, 1986.	pp. 59-64

5.9 Activity

Discuss examination, promotion and certification process presently prevailing in Pakistan and give suggestions for its improvement.

5.10 References

1. Muhammad Khalid: *Evaluation of Secondary School Examination in the Context of Textbooks of Classes IX-X and Perspective Teachers Training in Punjab*. 1998, pp. 1--4.

2. Office of Programme Evaluation United States. Agency for International Development Sep., *Evaluation Handbook*, 2nd Edition, Washington, D. C., 1972. pp. 2-3.

3. Lawrence B. Mohr; *Impact, Analysis for Programme and Evaluation*, 1992, pp. 25-27.

4. R.A. Farooq; *Examination, Promotion and Certification, Education System in Pakistan, issues and Problems, Asia Society for promotion of Innovation and Reform in Education*, Islamabad, 1994, pp. 1-18.

5. Muhammad Khalid; *Evaluation of Secondary School Examination in the Context of Textbooks of Classes IX-X and Respective Teacher Training in Punjab*, April 1998, pp. 1-8, 41-42.

6. Bhatti, A. A.: *Report on National Workshop in Textbook Writing, Ministry of Education*, Govt. of Pakistan, Islamabad, 1980. pp. 123-149.

7. Gay. L. R.: *Educational Evaluation and Measure-ment*, Macmillan Publishing Company, New York, 1980. p. 6.

8. Gronlund, N. E. & Linn, R. L.: *Measurement and Evaluation in Teaching*, Macmillan Publishing Co., New York, 6th edition, 1985, p. 3.

9. Shah, R. A.; *Education and Teacher Education in Pakistan*, Pakistan Study Centre, Wahid Art Printing Press, Karachi, 1995, pp. 83-84.

10. Ejaz-u-Haq: *An Investigation of Reliability of Scoring in the subject of English at Secondary School Certificate Examina-tion of BISE Multan*, unpublished M. A. Thesis, Department of Education, Bahauddin Zakariya University, Multan, 1994, pp. 1-2.

11. Pope, D.; *The Objectives Model of Curriculum Planning and Evaluation*, Council for Educational Technology, London , 1983, pp. 192-200.

12. Ministry of Education (Curriculum Wing) Govt. of Pakistan, Islamabad, *Examination Reforms, Test Development and Research, School Education in Pakistan*, Jan. 1977, pp. 51-53.

13. B. R. Satija; *Examination Reforms, Trends in Education, Anmol Publications*, Private Limited, 1996, pp. 513-524.

14. Govt. of Pakistan, Ministry of Education, Islamabad. *National Committee on Examinations*, 1966, pp.

15. R. A. Farooq, *Examination, Promotion, Certification, Education System in Pakistan, Issues and Problems*, Asia Society for Promotion of Innovation and Reform in Education, Islamabad, 1994, pp. 16-18.

16. Govt. of Pakistan, Ministry of Educa-tion, Islamabad, *Examinations, The Education Policy 1972-80*, March, 1972, pp. 31-32.

17. Ministry of Education Pakistan, *Examinations and Evaluation, National Education Policy*, 1992, pp. 69-70.

18. Dr. Mukhtar Ahmed Bhatti; *Examinations, Secondary Education in Pakistan*, Perspective Planning National Education Council, Islamabad, 1987, pp. 123-25.

19. Ministry of Education, Pakistan National Testing Service, *National Education Policy*, 1992, pp. 29-30.

20. Ahmed Noor Khan; *Evaluation Process in the Educational System, Secondary Education in Pakistan*, AIOU, Islamabad. 1986, pp. 59-64.

[ ]

Unit - 6

SECONDARY EDUCATION IN COMPARATIVE PERSPECTIVE

Written by:
Dr. Sabir Hussain Raja

Reviewed by:
Prof. Dr. M. Iqbal Ch.

6.1 Why Comparative Education

Nicholas Hans observes a common element in the customs, traditions, environmental and historical factors in different countries that shapes their educational system. Because of this similarity, it is possible to find the factors and traditions which are common in them. This lends insight and support to the attempt of solution on comparative basis, at least in such a group of countries, which have common educational and cultural background. He wrote:

> "As their (nation's) national past was formed by factors often common to many nations and as their ideals of the future are the outcome of universal movements, the problems of education in different countries are similar and the principle which guide their solution may be compared and even identified. The analytical study of this factor from a historical perspective and the comparison of attempted solution of resultant problems are the main purposes of comparative education."

6.2 Purposes of Studying Secondary Education In Comparative Perspective

1. ***Intellectual***

Secondary education like other comparative studies, is an intellectual activity. People study foreign educational intellectual activity. People study foreign educational systems because they want to know about others for enlightenment.

2. ***Planning***

It is a well-known phenomenon that the problems of over-population, under-production, disease, economic non-viability, industratialzation and social ills can be tackled through planning.

3. ***Precticability***

We are living in a practical age in which educaiton is regarded as consumer "good as well". The pattern of education which loses it practicability goes on being replaced by such patterns which have practical utility.

4. ***Humanitarian View-Point***

We are living in the world of rising population, increasing knowledge and exploding aspirations. In advanced countries like USA, the demand for education has never been so great as it is now. The developing countries like

Pakistan are aiming at the development of such educational patterns that it might be possible at least to achieve cent percent literacy in the minimum time period.

5. ***Educational Problems in World Prospective***

Most of the nations in the world face identical problems in their educational systems. It can, therefore, be possible to deduce lessons from the achievements and mistakes of foreign schools and to use it in the improvements, reforming or reorientation of the educational system of one's own country.

6. ***Innovations***

Nowadays, in the field of education, many innovations are being introduced. The technology of teaching, programmed learning, use of mass media in education, open university, teaching through correspondence, television and radio, pre-school education, emphasis on work experience in education, etc. would have been localized if education in comparative context had not been seen. So much work on theories of teaching and learning, classroom interaction, teacher-taught interaction and methodologies and techniques, involved in the improvement of teacher behavior is being done in the field of education in United States of America that if other under-developed and semi-developed countries do not keep abreast with them, their educational systems will soon become out-dated. It is always to get benefits form the experience and experimentation being done elsewhere rather than having fresh and first-hand experience by trial and error methods.

7. ***Economics of Education***

Only recently a new dimension to the purpose of education has been added and it has begun to be realized that spreading of education is positively correlated with increasing productivity.

8. ***Education for International Understanding***

Even when the idea of one world was conceived by philosophers like Pierre Dubois, more than six centuries ago, the main force which strengthened the sociology of international understanding was the destruction carried out by the last two world wars. It was why the United Nations Educational, Scientific and Cultural Organization (UNESCO) has laid down that since wars begin in the minds of men, it is in the minds of men that defenses of peace must be constructed.

6.3 Secondary Education in U.K

Introduction

In UK, the education in schools between the age of 11 to 18 can be termed as Secondary Education. Before the Education Act of 1944, which made Secondary Education accessible to all persons capable of profiting by it, many types of secondary and post-primary schools such as grammar school, senior schools, higher elementary schools, central schools, junior technical schools, commercial schools and schools specializing in art, had come up. These were doing good job, but there was a need for the simplification of the pattern. The act recommended tripartite system of secondary education comprising grammar schools, secondary modern schools and secondary technical. Schools have elaborated different criteria for admission in these different channels of education:

Grammar and Browne write:

"The allocation of different types of schools is by means of 11 plus examination, which consists largely of standardized tests of intelligence and attainment in basic subjects, together with reports from head teachers and security of junior schools record of candidates. The examinations is administered by the local education authorities and corrected by teachers according to instructions which allow for no personal opinion by teachers on the correctness of answers. For the script and list of marks from all schools, the local educational authorities complete a single order of merit from the total area of authority. An examination Board then calculates how far down this list, the allotment to grammar schools may go, and how far up the list the assignment to modern schools may commence."

The Education upto the age of 16 years is free and compulsory and is further extended upto the age of 18 years for those who show interest, aptitude and ability in studies.

The Tripartite System

a) ***The Secondary Grammar School***

This is an academic institution par excellence. It has grown out of traditional grammar school. It belongs to the same category to which lice in France and gymnasium in Germany belong. The cream of the society is educated in

Grammar Schools. These school demand disciplined thought and capacity to wrestle successfully with intellectual questions.

b) ***Secondary Technical School***

These schools had developed out of junior technical schools. These institutions, though in some cases, were of good standard, were mostly considered to be schools for lower trade worker such as artisans and domestic helpers. In most of them the general education's aspect was subordinated to trade training.

c) ***The Secondary Modern School***

This is the mainstream of secondary education in U.K. Yearly, half of the students study in such schools. The intake in such schools is non-selective. All those who do not get admission in Grammar Schools switch over to its pattern and the result is that the range from near misses in the selection test to those who are so poorly educated that they can be labeled as illiterates, mostly coming from predominantly working class home and especially from homes of semi-skilled workers. In their life careers they most became members of large group of workers in mills, factories, stores, shops, industrial plants, business offices, transportation services, farms, personal service and in homes.

Other Types of Secondary Institution

1. Comprehensive School
2. Independent Schools
3. Public School
4. The Sixth Form College

Important Features

1. Co-education
2. Welfare Services and the Schools
   a) The School Health Service
   b) Careers Guidance
   c) Meals, Milk and Clothes
   d) Child Guidance Clinics
   e) Children's Care Committee
   f) Transport

To have a deep insight in to the development of Secondary Education System in U.K, let us study the following book:

T.H.Sodhi	*Secondary Education in UK. In comparative perspective, A Textbook of Comparative Education*, Vani Educational books, Vikas Publishing House Pvt. Ltd.	pp.5-134

6.4 Secondary Education in USA

Introduction

People in USA attach so much importance to secondary education that President Johnson had to say:

> "The secondary school is the keystone of American education for millions of our young people. It lies on the threshold of higher learning, for millions more it is the pathway for adult life and useful citizenship. In the extreme type of decentralization it becomes probably difficult to put the pattern of secondary education in a single frame. All children are provided 12 years of free education. Among 14 to 17 years of age, about 91 per cent of the students are in schools. All the children between the age of 6 and 14 years, leaving aside almost mentally and physically handicapped cases, including the states where compulsory education is either after seven or up to sixteen years, are in schools."

Types of Schools

a) ***The Junior High School***

By 1890, the 8--4 plan had been accepted as the desirable division of elementary and secondary schooling in most of the states. Several well-known committees, studying secondary education, recommended beginning secondary studies in the seventh grade. As a result of it, the first formally organized junior high schools were established in Columbus, Ohio, in 1909 and in Berkely, California, in 1910.

The junior high school usually includes the seventh, eight and ninth grade and is housed in a separate building under its own administration.

b) ***The High School***

High schools were at time known as higher secondary schools. These organized on a departmental plan, in which each teacher handles one subject or several related subjects and meets five or six different classes each day. Because high schools are organized by local districts, these are widely distributed throughout the country. High school opportunities are made available to all purlieus and usually at a convenient distance from their homes.

c) ***Comprehensive High School***

Comprehensive high school, called 'multilateral' or 'omnibus' or 'composite' high school in some other countries, has grown up. There has also been a marked tendency for the specialized high schools to become increasingly comprehensive. In addition, to other educational, social and cultural gains, it is economical also. The comprehensive high school is a distinctive feature of American secondary education. It includes in its offerings all types of special education, combined in the same schools. All students take required core courses, such as English, Social Studies, Science and Mathematics as elective. They choose the courses required to meet the needs of commercial, technical, agricultural or home economics fields.

6.5 The Formal System of Education (Secondary Education) in Japan

Those who complete elementary school, proceed to the lower-secondary school, which is three years of duration and the second stage of compulsory education. In addition to the subject areas taught at elementary school, lower-secondary school pupils learn health and prevocational subjects. Foreign languages are elective subjects, but almost all lower-secondary schools teach English as a foreign language. The minimum number of periods during a year in the lower-secondary school is 1,050, each period being 50 minutes long. Textbooks authorized by the Ministry of Education are also free of charge.

In 1993, three were 11,300 lower-secondary schools with an enrollment of nearly five million pupils. In all, 5 percent of the pupils were in private lower-secondary schools. The lower-secondary school enrollments have since in the late 1980s decreased by million pupils.

The upper-secondary school is the second half of secondary education and is not compulsory. Entrance examinations are organized for applicants and 96 percent of

graduates from lower-secondary schools go to upper-secondary schools. Tuition fees are required and textbooks, also authorized by the Ministry of Education for use, are no longer free.

There are two types of upper-secondary schools disdinguished by length of study period: full-time school for three years, and part-time and correspondence school for three or four years. A new type, called the "credit-system upper-secondary school" was inaugurated in 1988. Its aim is to offer learning opportunities to meet learners' needs and conditions. Streaming starts at this stage and approximately 74 percent of students enroll in a general course. Specialized courses include technology, commerce, agriculture, matheinatics/science, English language, informatics, and so on.

In 1993, there were 5,500 upper-secondary schools with 5 million students entolled in them. The upper-secondary school population has also begun to decrease. Some 30 percent of the upper-secondary school population was in private institutions and it is expected that the decrease in the size of the population may affect these, privately established institutions more severely than public schools.

Curriculum Development and Teaching Methodology

The school curriculum is based on the course of study prescribed by the Ministry of Education, in which the basic framework for the curriculum at each grade level including instructional objectives, content, standard time allotment, and others are stated. The prefectural and municipal boards of education prepare guidelines for curriculum development in the schools in their areas, and individual schools are required to organise their own detailed instructional programs on the basis of the courses of study and the guidelines.

The courses of study prepared by the Ministry are revised approximately every ten years with a view to overcoming educational defects and improving the educational content and activities responding to social changes. Revision work was undertaken in the latter half of 1980s and newly revised courses of study were implemented from 1992 for the elementary school, 1993 for the lower-secondary school, and 1994 for the upper-secondary school. The principles for the revision of courses of study were: (a) to place emphasis on basic and essential knowledge and skills, (b) to enhance educational programmes to give full play to a pupil's individuality, (c) to keep consistency in the curriculum for each subject area among different levels of schooling, (d) to nurture the capacity to cope positively with changes in society, and (e) to develop self-learning ability.

Revision of the school curriculum has the following steps. The Curriculum Council of the Ministry of Education, the Minister's advisory organ on matters of school curriculum, prepares the basic guidelines, on the Minister's request, for revising a course of study. The guidelines prepared by the Council are utilized by the Ministry's subject specialists and their collaborators as the basis for writing the course of study for each grade and subject. Teachers' guidebooks for each grade level and subject are also prepared by the subject specialists in the Ministry with the assistance of experienced teachers in accordance with the newly revised courses of study.

The pupil-teacher ratios for elementary, lower-secondary, and upper-secondary were 20:1, 17.4:1, and 17.7:1 respectively in 1993. Simultaneous collective instruction at a class was common practice in elementary and secondary schools, but individualized teaching, small group instruction for homogeneous achievement, and other teaching methods are encouraged in order to deal with the increasing curriculum burden and the diversified learning abilities and aptitudes of the students.

School textbooks serve as the main instructional material in the classroom. The textbooks are developed, except for a few which are compiled by the Ministry, by commercial publishing companies on the basis of the courses of study. They then have to be authorized by the Ministry and adopted by the local boards of education for use in schools.

The System of Examinations, Promotions, and Certifications

There is no external examination scheme in Japan. Promotion and certification of completion are made on the basis of internal assessment. Grade-to-grade promotion in compulsory education is practically automatic. The minimum requirement for graduation from the upper-secondary school is to acquire 80 credits. One credit can be earned by the attendance of 35 class periods, and by the approval of satisfactory achievement by the teacher in charge. Certification of graduation is issued by the individual school principal.

Entrance examination for public upper-secondary school is organized by the relevant boards of education, whereas the private upper-secondary schools organize their own entrance examinations. The Ministry of Education set up a National Centre for University Entrance Examination to organize a nationwide test every January to assess the level of applicants' academic achievement acquired at upper-secondary schools. The test results are used by individual national, public or private universities together with the school reports from upper-secondary schools and the results of interviews, essay tests, achievement tests, and practical skill-tests of their own for consideration for

admission. Use of the National Centre's test results is decided by individual universities, and a majority of private universities prefer to organize their own entrance examination rather than to use the Centre's test results. Junior colleges select students by using their own examinations.

There is a University Entrance Qualification Test Scheme for those who have not completed an upperseccondary school course. Those who pass the test are granted qualification for university entrance.

Educational Assessment, Evaluation, and Research

The Ministry of Education conducts a nationwide scholastic achievement survey from time to time either on the basis of census or probability samples. Its results are utilized for the improvement of curriculum standards. The National Institute for Educational Research, a research agency under the jurisdiction of the Ministry of Education and affiliated to the Internmational Assocecation for the Evaluation of Education Achievement (IEA), conducts nationwide scholastic achievement surveys in specific subject areas in collaboration with prefectural institute of educational research with a view to compare scholastic achievement of Japanese students at an international level.

The National Institute for Educational Research also covers whole areas of education, except special education which is covered by the National Institute for Special Education Research. Both institutions carry out theoretical as well as action-oriented research. The National Institute of Multimedia Education is another government agency which conducts research work related to higher education using broadcasting media.

In the Ministry of Education, there is one division for educational research and statistics which carries out policy oriented research. In all prefectural and major municipal baords of education there is an institution called either "education centre", "education research institute", or "inservice education centre". This institution aims at providing in-service training programmes for teachers in the area. At the same time, it conducts various action-oriented research activities.

6.6 The Formal System of Education in Germany

In 1992, with the East German Lander still undergoing fundamental reforms, no accurate picture can be given for the whole of Germany. Eventually, however, directly comparable school leaving certificates as implied by the diagram will also exist in East

Germany, and since its population is only about 20 percent of the total, quantitative changes will be relatively minor.

Secondary Education

Depending on the state, compulsory schooling lasts 9 or 10 years, with normal entry at age 6. Special regulations cover the details as to when the requirements are fulfilled (e.g., in case of belated entry or grade repetition). If a student fails to obtain a leaving certificate, he or she is no longer legally entitled to the provision of formal education and will often face grave social and economic difficulties.

The Ministry of Education and the local boards of education encourage school-based research by classroom teachers for the improvement of teaching methods and materials. University faculties in education are also a strong wing for educational research. Several of them have their own educational research institutes or centres.

At the end of Grade 4 (or 6, as the case may be), the students are allocated different programmes of secondary education. These represent a clear three-level hierarchy in terms of the "academic esteem" of the leaving certificates conferred. In practice, if not in theory, the allocation process is markedly dependent on social background influence; the correlation between school-type attendance and parent education, for instance, is about 0.50 at Grade 8. Theoretically, the choice of a particular programme rests in most cases with the parents. The role of the primary teacher in the decision is mostly restricted to that of giving a written recommendation based on attainment. Again, in practice, unwillingness to comply with this recommendation will often result in failure at a level which then proves to be too demanding. Thus, significant numbers of students drop back to a less ambitious programme in or after Grade 7, at which level some secondary schools introduce a second foreign language.

In 1990, just over 34 percent of the West German students in Grades 7 through 9 attended the least academically demanding programme, namely the *Hauptschule*. This school type provides instruction geared toward entering an apprenticeship after having received the leaving certificate. The curricular content provides specialcomponents intended to prepare the students for their later careers and also includes one foreign language (usually English). Quantitatively, the *Hauptschule* is in a state of decline as can be seen from the fact that in 1960 nearly 64 percent of the respective age cohort attended this programme. Since the *Hauptschule* tends to attract many low-achieving students and a disproportionately high percentage of immigrant youth, this school type is sometimes

cynically labeled as "the only choice left" (Restschule, cf. Tillmann 1988), and this situation has given rise to a mounting debate about its reform or abolition.

Of the corresponding cohort, 28.8 percent attend the next higher programme, which is known as the Restschule or sometimes the Mittelschule (intermediate school). At least one foreign language is obligatory in this type of school and a second is usually offered. Traditionally, the Restschule has catered to students aspiring to enter subordinate white-collar professions. Since the 1970s its successful completion has become an entry requirement for some of the more attractive appenticeship programmes. The leaving certificate also appear to function increasingly as a key to alternative routes into higher education. There is some evidence that scholastic achievement among students attending the Restschule is, on average, higher in those Lander having a more selective/competitive educational system.

The third programme at the secondary level is called the Gymnasium. It is attended by 30.8 percent of West German sudents in Grades 7 through 9. The overall aim is to prepare students for higher education programmes, even though not all of its graduates will proceed to university studies. The number of female graduates is slightly higher than that of males although more male graduates continue with higher education. In Grades 5 through 10, the curricular content varies somewhat according to the type of school attended. It may range from a heavy emphasis on classical languages (Latin and Greek) to modern languages and special arts programmes. Generally, at least two — and in some cases three — foreign languages are required, of which English is one. Beginning with Grade 11, students can choose specializations within a rather complicated framework that allocates approximately one-third to "language and arts", one-third to social studies (civic education, history or geography, religion or philosophy), and one-third to mathematics and science. Physical education is also compulsory.

Successful completion of the final examination at the end of Grade 13 entitles a student to attend university. A minimum grade point average may be required for some higher education programmes (most notably in the medical field), but there is no strict and essential linkage between the student's specialization at the upper secondary level and his or her choice of higher education studies.

At the secondary school level, there are also about 190 days of school per year and children typically attend school from 8 a.m. to 1 p.m.

Since the early 1970s, plans to restructure the (West) German educational system focused on introducing comprehensive schools for all children in an area, with internal streaming by subject and differential leaving certificates. These plans aroused a great deal of controversy. Some of the early experimental programmes of comprehensive schools (Gesamtschulen) were politicized and this made them unacceptable to a popular majority. Different Lander authorities also held very different views about the desirablity of having truly comprehensive systems. Commissioned evaluation studies did not always help to take the ideological element out of the debate. As of the beginning of the 1990s, the situation can be characterized by saying that the conservative Lander have decided to terminate the experimental programmes, whereas the Social Democratic states have given the Gesamtschule the status of one among four types of regular secondary schooling. Thus, only 6.2 percent of the Grade cohorts 7 through 9 attend this type of school, but because it often has to compete with Realschulen and Gymnasien for students, "creaming-off" occurs, so preventing the Gesamtschule from becoming comprehensive in the truest sense of the word.

Curriculum Development and Teaching Methodology

The state ministeries of education (with a few exceptions in vocational and technical training) determine their curricula in accordance with existing legislation, and they do so by means of three different instruments: (a) tables prescribing the number of periods per week and subject by grade and school type, (b) curriculum guidelines, and (c) the authorization of textbooks.

There is considerable variation from state to state. For instance, Bavarian students (Grades 1 through 10) receive approximately 20 percent more instruction in terms of teaching periods than the correspoinding group in Hamburg (Mitter 1990). There is also some variation in the relative weight accorded to different subjects.

While the general aims are laid out in school legislation, (often the preambles of the respective Acts of Parliament), specific objectives are published in the context of curriculum guidelines. These are decreed by the state ministry; they include syllabuses, recommendations on teaching methods, and sometimes model lesson plans. Only the syllabus itself is considered obligatory, and decisions about methods are left to the teachers (subject only to advice from the supervising authorities). The guidelines are usually elaborated by appointed teams of experts, sometimes in collaboration with universities and/or research and development institutes. It is to be noted, however, that the guidelines are not primarily based on empirical research outcomes, but rather they

reflect purely normative considerations and have at times been subject to considerable political controversy.

No textbook may be used in a German school without prior approval from the state ministry. Schools and teachers are then free to choose from among the books on the approved list. While it has sometimes been argued that this mechanism provides the ministeries with a powerful instrument of control, it should be noted that many teachers make extensive use of materials they have photocopied or prepared themselves. This adds substantially to the variation in learning opportunities between classrooms.

As stated above, the decisions about whether to use a particular teaching method are very much left to the teacher. With diminishing student-teacher ratios (down from more than 30:1 in 1960 to about 15:1 in 1980, primarily for demographic reasons), there has been a clear trend away from teacher-centreed approaches toward work with small groups and a student-centered perspective. Since the late 1980s, the concept of *open instruction* which emphasizes self-directed student learning has become an increasingly popular model for primary schools and is also in the lower grades of some secondary schools.

The System of Examinations, promotions, and Certifications

With very few exceptions, formal testing is not used for the evaluation of educational achievement. These exceptions refer primarily to diagnostic tests (e.g., for the purpose of identifying different types of dyslexia), although some commercially produced achievement tests are available. The normal approach which is used to assess student achievement relies entirely on teachers evaluations of written tests and of the student "oral" cooperation. "The results are expressed either in a written progress report (mainly in primary grades), or as marks on a 6-point scale. Informal tests are given with a prescribed minimum frequency (in the higher grades of up to five hourse duration), but greater weight is placed on successful participation in classroom interaction. Homework may also play a role.

Because of this variety of assessment procedures, student' marks or scores are not comparable across schools or even classrooms, since they depend on individual judgement and potentially quite different achievement tasks. Some states provide, on an annual basis, centrally defined taks and standarized coding schemes in order to facilitate feedback to teachers, but these are not part of the in-class evaluation of achievement.

Again, with some exceptions, there is no automatic promotion from one grade level to the next, although grade repetition is decreasingly exercised (1.5% per grade in primary schools and about 4% in secondary schools in 1990). A special case is the upper secondary stage of the Gymnasium, where credits for successful completion of courses (awarded on a 16-point scale)are weighted and accumulated over four semesters, and the marks for the written and oral final examinations are then added to form a total score.

All attainment documents (school-leaving certificates as well as university and state examination diplomas) have a legalistic and highly formalized character. They are mutually recognized by the states and entitle the student, to enter higher-level programmes, to receive higher levels of payment (e.g., in the extensive civil service), and to bear certain professional appellations (including academic titles). In the case of school-leaving certificates, it is for the state educational authority to ensure the attainment of minimum standards. Procedures vary: In most states, successful completion of the final grade of the Hauptschule and Realschule leads to a recognized certificate, while the tasks for the final examination in the Gymnasium are submitted to and approved by the ministry. In others, there are centrally set (and marked) tasks at all three levels. Still others have a mixture of these practices.

Educational Assessment, Evaluation, and Research

There is no national assessment of educational outcomes on a regular basis. The German component of the International Association for the Evaluation of Educational Achievement (IEA) Reading Literacy Study was the first achievement survey in two decades based on a national probability sample of students. This is despite the fact that there are several large, and in part federally funded, research institutes. Some of the Lander maintain their own state institutes, but these are politically controlled by the ministry and are, therefore, in a delicate position when controversial issues are investigated across state borders. Another typical form is that of a specialized central institute devoted to particular subject areas (e.g., science), a segment of the school system (in this case vocational, technical, and commercial education), or a particular field of research (e.g., internationally comparative studies).

Evaluation, defined in the sense of programme evaluation, is almost entirely limited to commissioned research. At the federal level, the Joint Commission for Educational Planning and Research Support provides official recognition for experimental programmes whose evaluation is then funded jointly by the federal and the state ministries. However, the appointment of evaluation teams (often, but not always from universities) may be critical in such cases. Especially in the case of experiments in

comprehensive schooling, some of the evaluation studies have been criticized for their rather obvious political bias.

As compared with other countries, Germany has not undertaken much empirical research in education. Similarly, relatively few methodological innovations have originated from German educational research groups. In the case of East Germany, there was a relatively broad tradition of small-scale empirical studies, often severely limited because of lack of access to computer facilities. The latter factor did not play a role in some certrally controlled research groups which were also able to conduct larger surveys, but many of these results were never published for political considerations. Neither of these limitations apply in West Germany where the strong historical and normative orientation resulted in many valuable monographs, but which at the same time, placed strong constraints on the influence of empirical studies.

6.7 Secondry Education in Indonesia

Secondary education consists of junior secondary followed by senior secondary school. The first consists of general, technical, and vocational schools, each lasting three years. Those eligible for the junior secondary school, be it general, technical, or vocational, are primary school graduates. In 1988-89, there were 20,334 junior secondary schools with an enrollment of 6.5 million children. A grade group consists of 2.2 million children; of these, 1.9 million graduate.

The senior secondary school consists of a general, technical/vocational, and teachers' school. Each one of them is one unit and has a three-year programme. However, some technical and vocational senior secondary schools have four-year programmes. They are open to junior general secondary school graduates. Those finishing technical or vocational junior secondary school can only continue at relevant technical or vocational senior secondary schools. In 1988-89, there were 10,682 senior secondary schools with an enrollment of 3.9 million pupils.

Curriculum Development and Teaching Methodology

A curriculum is designed on the basis of the objectives of the national education system, taking into consideration the development stages of the students, the local environment, national development, scientific and technological development, and the arts.

The implementation of the teaching-learning activities in a given educational institution is based on a core curriculum for all students and elective programmes which are adjusted to the needs of the environment in which the educational activity takes place. The core curriculum constitutes general guidelines for both in school education and out-of-school education and is composed of a number of subject matters.

The content of the curriculum consists of sequenced materials. These materials are written on the basis of the curriculum outlines, and are tried out and revised before being implemented. The whole content of the curriculum is classified into: Pancasila (state ideology), religion, citizenship, culture sciences, skills, and sports and health.

The Junior Secondary School has a curriculum developed in 1984. It has three parts, namely general education, academic education, and skill education. In general education emphasis is given to Pancasila, moral education and religious education, which reflect the nation's universal moral values. In addition to these, sports and health education and arts education are other subjects in the general education category.

Academic education consists of six subject areas, which are Indonesian language, local language, English, mathematics, science, and social studies. Skills education consists of required skills and elective skills, which are both practical skill subjects. The required skills subjects are taught in odd semesters, while the elective skills subjects are given in even semesters. The time allocation for general education subjects are two lesson hours per week for each subject except for sport and health education, which are three lesson hours. Academic education is taught in four lesson hours a week except for the Indonesian languages and mathematics, which are five lesson hours a week. Skills education is allotted six hours per week.

The senior secondary school (SMA) also has a curriculum developed in 1984. In the first year it is the same for all students and consists of 15 subject areas. In the first semester of the first year there are as many as 14 subjects taught, while in the second semester there are 13 subjects. All of the subjects taught in the first year are labeled as the "core programme". Some of the subjects in this core programme such as Pancasila; moral education, religious education, Bahasa Indonesia, and world history are taught continuously through the third year. Beginning in the second year, students are assigned to one of four streams: Programme A-1: physical sciences, Programme A-2: biological sciences, Programme A-3: social science, Programme A-4: language and arts. There are 38 hours of instruction per week in Grade 10, and this reduces to 36 in Grade 12.

The curricula of the pre-pimary school, primry, lower and upper-secondary shools were being rivewed in the beninning of the 1990s in order to adjust them to developments of the newly adopted Education law (1989). The nine-year basic education curriculuim has been placed as the first priority. The new curricula have been implemented in the 1994-95 school year. The main feacture of the curriculum is that the ministry is only responsible for developing the national core curriculum which is about 80 percent of the total curriculum. The other 20 percent is related to local content and will be prepared by the provincial office in conjunction with the schools. In some cases, the national core is adjusted to local conditions and needs; this includes curricula to meet the most specific charaacteristics of certain education institutions. This new policy has direct implications for the preparation of teachers textbooks,and other types of instructional materials, as well as the management, supervision, monitoring, and periodical evalucation of the curriculum.

The system of examinations, promotions and certifications

School examinations are conducted at the end of the school year, from primary to senior secondary schools. The national leaving examination (EBTANAS) is taken by every student enrolled at the last grade of every school level (i.e. Grades 6,9,and 12). It is planned nationally and administrated locally to deternfine the level of students achivement in key subjects. The examination serves the purpose of providing scores on each key subject which are used as major component in each student's total scores in the school certicficate. Furthermore, student scores on the national examination are useally used for selection into the next higher cycle of schooling.

Not all subjects taught in school are included in the national examinations. For instance, for primary school the examinations include Pancasila moral education, Indonesian language, manthematics, science, and social studies. Other subjects such as religion, sports, vocational skills, and others are not included, although the students scores on the subjects based on the teachers assessment are included in the certificate awarded by the school.

The test blueprints for primary, junior secondary, and senior secondary schools are developed at the national level with input from the provincial office. The test items for the senior secondary schools are constructed in the provinces and selected for the examinations at the national level.The test items and the tests for the primary and junior secondary schools are also developed at the provincial level, but subsequently 5-7 "parallel" tests are developed for each subject included in the examinations, two of which are set aside for future use. The province can choose: three out of five sets of the

parallel test to be used for the examinations for junior and senior secondary schools, while the district in each provunce can choose three out of the five parallel tests for the examinations.

For the administration of the national school examinations, a regulation specifying every step is issued by the Directorate General of Basic and Secondary Education. This regulation includes, for instance, the time schedule of the examinations, scoring the results, and the rules for determining whether a student passes. In practice, a committee is set up at the provincial level to oversee these matters. It deals with all steps from the printing of the examination materials to the determination of who passes. A committee for this examination is also set up at the national level.

The promotion of students from one grade to another is based on their performance during the school year. Their performance is assessed by their teacher(s), a classroom teacher for primary school, and subject matter teachers for junior secondary and senior secondary schools. The performance levels of the students are shown in their school progress report. There is no automatic promotion in the Indonesian educational system. In fact, the grade repetition rate in primary school is still very high. In 1989-90, it was 9.8 percent. On the other hand, in junior and senior secondary schools the repetition rates were 1.2 and 1 percent respectively.

As mentioned above, the national examinations scores are only one of the components of the final or total scores included in the school completion certificate. In the school certificate (STTB), the final score is derived from the scores on the national examinations, and the scores of the students in the school progress report. The decision on a student being awarded a certificate is determined by these final scores. Specific formulas are given in the regulations on how to determine this, but basically they deal with the scores derived from the national examination and from the students' school progress report. However, as mentioned earlier, school entrance to the next level of schooling is usually based on the students' scores in the national examinations, rather than on their final scores mentioned in the school completion certificate.

Educational Assessment, Evaluation and Research

Basically, there are two kinds of institutions engaged in major educationl research (including assessment and evaluation). One is the Office of Educational and Cultural Research and Development (*Balitbang Dikbud*) and the other is the IKIP and the faculties of education (FKIP) in universities. The *Balitbang Dikbud* is a principal unit within the Ministry of Education and Culture (MOEC). Its main task is to plan, conduct

and coordinate educational policy research and development within the MOEC. The IKIPS and FKIPS are institutions whose main task is to train teachers for secondary schools and to conduct primarily basic research in education and applied research in teaching and learning processes. A number of policy research studies are also sometimes conducted by these institutions, but the scope of these studies is usually small-scale. Policy research studies with a national scope conducted by these institutions are usually contracted from the directorates within the MOEC. *Balitabag Dikbud* also often works with these institutions in conducting its research studies. On the other hand, *Balitbang Dikbud* conducts a greater number of large scale policy research studies on a regular basis.

Balitbang Dikbud has four centres and one secretariat. The four centres are the Centre for Policy Research, the Centre for Computing and Statistics *(Informatik)*, the Centre for Curriculum Development, and Centre for Testing Service. There is another centre outside *Balitbang Dikbud* which is technically under the supervision of the head of *Balitbang*, called the "Centre for Educational Technology" (known as *"Pustekkom"*). This centre formerly belonged to one of the centres within *Balitbang Dikbud*, and then became an independent centre structurally under the Secretariat General of MOEC.

The Centre for Policy Research has the major task of planning, conducting, and coordinating policy research in education and culture in general. The Centre for Computing and Statistics plans, conducts, and coordinates data collection related to school statistics; it compiles annual school statistics and conducts quantitative planning studies in education and culture (e.g., conducting the preparation of a five year development plan in the field of education and culture). The Centre for Curriculum Development is in charge of research and development related to school curricula, especially for primary and secondary education. The Centre for Testing Service is responsible for conducting research and development related to school testing and examination, such as, the development of a test item bank, and methods of effective testing and examination. The Centre for Educational Technology conducts research and development of innovative technology in the delivery system at school and training (e.g., developing innovative educational media such as slides, audio cassettes, video programmes, and films).

The main objective of the system is to promote better and more active learning at school. The outstanding feature of the system is that it adopts an "active learning" approach involving more discussion in lessons and more pupil questions to their teachers instead of too much teacher talking and students listening. This system has been

disseminated to more schools in the Cianjur district itself, and to selected districts in other provinces.

6.8 Secondary Education System in Malaysia

Secondary education is available over five or six years and is divided into lower and upper-secondary levels. The former is of three years' duration, while the latter is of two years' duration. Pupils from the national type Chinese and Tamil primary schools spend a year in the Remove class before the transition to secondary schools. This is to enable them to get sufficient exposure to and opportunities to enhance their proficiency levels in Bahasa. Melayu, which is the medium of instruction in secondary schools, before joining Form I the following year. In 1990, there were 1,327 secondary schools including fully residential schools. The latter are special schools established to provide better educational oppoftunities for high ability students, especially those from rural areas. Apart from these schools, the MARA Junior Science Colleges under the Ministry of Rural and National Development also provide similar opportunities.

Upper-secondary education consists of arts, science, technical, and vocational streams. Selection of students into the various streams is based on their performance in the Lower Certificate of Education Examination held at the end of Form III (Grade 9). For some, this examination is terminal as those who fail leave the system to join the labor market. In 1990, the transition rate between lower-secondary and the upper level was 67.18 percent. While students previously were selected for streams based on academic performance, as from 1992, under the Integrated Secondary School Curriculum, students studying at Form IV (Grade 10) in general academic schools will be allowed to select electives from various groups apart from the core subjects.

In 1992, there were two programmes offered at the post secondary level; the sixth form and matriculation classes. Sixth form education prepare students for the Higher School Certificate Examination (conducted by the Malaysian Examination Council) which is the requirement for several courses conducted at local universities. Matriculation classes prepare students to meet specific entry requirements of certain universities. In 1990, the number studying in post secondary education was 138,302, which accounted for 18 percent of the total 17+-18+ age group.

Apart from the two programmes mentioned above, post-secondary education is also offered at the MARA Institute of Technology and Colleges. Fields offered include: technology, commerce, management, and administration. Polytechnics offer education

and training in commerce and engineering at the technician and junior executive levels. The number of students in these colleges was 45,144 in 1990.

Schools operate on a semester system and the school calender begins in the first week of December. There are 41 weeks in a school year. Schools normally start at 7.45 am. Many schools in Malaysia, especially in the urban areas, are on double (i.e., morning and afternoon) shifts.

Boarding facilities are provided to pupils in the lower income group from rural areas and those whose homes are far from schools. Pupils pay a nominal fee for food and lodging. Needy and deserving pupils at both primary and secondary levels are given scholarships based on merit. This financial assistance is provided by the Ministry, state governments, and the private sector. Needy pupils are also given textbooks on a free loan basis.

Private secondary schools have to abide by regulations set by the Ministry of Education, that is, the common curriculum and the common examination. Other courses taught also must meet the approval of the Ministry of Education. In 1990, a total of 98,553 students enrolled in these schools from primary to secondary levels. At the post-secondary level, private education offers both academic and professional courses leading to diplomas and certificates. A growing number of private colleges have arranged twinning programmes with universities abroad, whereby students spend the first year of university education in Malaysia and the next two years in the foreign country.

Curriculum Development and Teaching Methodology

All schools in Malaysia follow a common content curriculum formulated by the Curriculum Development Centre using national objectives, the Rukunegara and the National Educational Philosophy, as important sources of reference. A holistic and balanced development of the child in the cognitive, affective, and psychomotor domains, and the nurturing of desired moral values and attitudes are the main thrust of the school curriculum. Other areas of emphasis include the cultivation of citizenship value and national consciousness as well as the production of trained and skilled labour for the nation. The school curricula is developed centrally with representative participation form practicing teachers and teacher educators and officers from the state and distrct education offices. Bahasa Melayu is taught to all pupils. English is taught as a second language.

The primary school curriculum, revised in 1981 and implemented in 1979 places emphasis on the overall and balanced development of the child in the physical, intellectual, spiritual, social, emotional, and moral domains.

The curriculum is designed to provide basic education. Thus its main thrust is the acquisition of the basic skills of literacy and numeracy. However, the development of physical, affective, and personality characteristics are also given importance.

Such aims are to be achieved through a child centreed instructional approach. Teaching-learning strategies used icnlude a variety of approaches such as the flexible groupings of students appropriate to the skills being taught. Greater attention to individual needs of the child through remedial and enrichment activities; integration of skills and knowledge in lessons taught; and the utilisation of a variety of materials. Orientation to science and technology is achieved through the subjects *Man and the Environment* and *Manipulative Skills*, both new subjects in introduced in year 4 of primary schooling.

The integrated secondary school curriculum is an extension of the primary school curriculum and is currently implemented in all classes up to Form IV (Grade 10) throughout the country. This curriculum is designed to provide general education. It is modeled on an integrated approach which fuses knowledge, skills, and values/theory and practice; the curriculum and cocurriculum; and school culture.

Special emphasis is given to the acquisition of knowledge and skills which promote the development of thinking abilities to enable students to analyze, synthesize, explain, draw conclusions, and produce ideas that are both constructive and useful. The teaching of moral values and the correct usage of Bahasa Melayu to acquire knowledge and promote thinking skills are other areas of emphasis.

At the lower-secondary level the core subjects are formulated with the aim of providing general education for all. At upper-secondary level, beside the core and additional subjects, several electives are offered to cater for students' interests and talents.

In line with the increased demand for a workforce with a technical vocational bias, efforts have been taken to introduce elective subjects in the vocational and technical group at upper-secondary level in normal academic schools. At the lower-

secondary level, *living skills*, a new subject which comprises elements of manipulative skills, entrepreneurship, and family life education, has been introduced.

At the lower-secondary level, the total teaching time per week is 1,800 minutes divided into 45 teaching periods of 40 minutes each.

Cocurricular activities are undertaken to complement teaching and learning activities in the classroom. Pupils are encouraged to participate in at least one activity in each of category of programmes - sports and games, uniformed units, and clubs and societies activities.

The System of Examinations, Promotions and Certifications

In all government and government aided schools, pupils are automatically promoted up to Grade 9. However, at the end of Year Six all pupils sit for the *Ujian Pencapaian Sekolah Rendah* (Primary School Assessment Test) in language and mathematics. At the end of Form 3 (Grade 9), students take another national examination leading to the *Sijil Rendah Pelajaran* (Lower Certificate of Education). Based on performance in this examination, students are placed either in the academic stream or technical and vocational schools. From 1993, this examination will be replaced by the *Penilaian Menengah Rendah* (Lower Secondary Assessment). This examination has both the components of central and school-based assessment. At the end of Form 5 (Grade 11), students take the *Sijil Pelajaran Malaysia* (Malaysian Certificate of Education) or the Technical and Vocational Certificate Examinations. Based on their results, the students either follow a two-year preuniversity course to enable them to sit for the Higher School Certificate for placement in universities, or join institutions such as the teacher-training colleges or the polytechnics in preparation for employment. Some students leave to join the labour market after the Malaysian Certificate of Education.

With the emphasis on preparing students for gainful employment in the private secotrs, there is less emphasis on academic qualifications and more effort is given to prepare students for employment or further training before employment. Participation in extracurricular activities also are given more emphasis than previously.

Educational Assessment, Evaluation and Research

The reforms at both the primary and secondary levels in the 1980s, were aimed at the development of the individual child to his or her full potential in all areas intellectual, emotional, physical, and spiritual. Holistic development calls for a continuous evaluation of the child. This evaluation should be criterion based rather than

norm-referenced. The emphasis on the acquisition of the "3 Rs" at the lower primary level requires that pupils be assessed individually. Tests are thus more school-based and classroom-based. Towards this end, teachers have been trained to develop suitable items based on the needs of the schools and pupils. Ultimately, national examinations will only be conducted at the end of Grade 11. The system also encourages teachers to conduct self-assessment as a means toward self-improvement.

Educational research is coordinated by the Educational Planning and Research Division of the Ministry of Education. All research to be conducted in schools and classrooms needs to get approval from this division, to ensure that the design and questions would not have any negative effects on the system or students. Other coordination aspects include determining priority areas in which research is required and the dissemination of research findings, thus improving the quality of education. Funding for research is also disbursed by the Educational Planning and Research Division.

There is growing interest in the Teacher Education Division's efforts to encourage teacher-training colleges to conduct small research projects which would feed into efforts to improve classroom teaching.

6.9 The Formal System of Education in People's Republic of China

Secondary Education in China comprises four sectors: basic education (BE), technical and vocational education (TAVE), higher education (HE), and adult education (AE). BE covers preschool, formal primary, and secondary education; TAVE is carried out mainly in specialised secondary schools, skilled worker schools, secondary vocational schools, and the advanced technical and vocational colleges; HE essentially refers to the education of regular higher education institutions; and AE offers literacy programmes, various types of school instruction, and other forms of education which are targeted at adults.

The length of education at different levels and types of institutions are set as follows: kindergarten admits preschool children (age 3 or older); primary schools, lasting 5 or 6 years, enroll children at the age of 6; and secondary education consists of lower-middle school and upper-middle school, the former is for 3 or 4 years and the latter 3 years. In 1986, the National People's Congress adopted the Compulsory Education Act, which stipulates that a total of nine years of education should be made compulsory, covering primary and lower secondary levels. Specialised secondary schools admit lower-middle school leavers normally for a four year study programme.

In 1990, the enrollment of primary school aged children reached 97.8 percent and the proportion of primary school leavers who proceeded to lower middle schools stood at 77.8 percent. In China, 72,000 lower-middle schools with 38.69 million pupils; 16,000 upper-middle schools with 7.17 million students and 1,075 regular higher education institutions with 2.15 million students.

Curriculum Development and Teaching Methodology

In order to improve the quality of the whole national effort and ensure the effectiveness of basic education, the State Education Commission (SEDC) has formed expert groups and formulated curricula guidelines for the country's primary and secondary schools. In view of the huge regional socioeconomic disparity, SEDC permits the flexible implementation of the guidelines by the provinces, autonomous regions, and the metropolitan municipalities. Necessary adaptation can be made as appropriate to local conditions, provided that the basic requirements of the curricula are met. There are two versions of the six-year primary school curriculum: one for the urban schools and the other for rural schools. It offers ten subjects including moral studies, Chinese, and mathematics. The urban schools should, in addition, provide sports activities for Grade 1 and Grade 2 pupils, while rural schools should add provisions of agricultural studies for Grade 6 pupils. The five- year primary schools do not offer sports. The middle school provides 13 compulsory subjects, including moral education and politics, Chinese, mathematics, and a foreign language. The upper middle school is required to offer optional subjects, the contents of which are determined in accordance with the wishes of the pupils, social needs, and the conditions of specific schools. English is the most common foreign language, although some schools also offer Japanese, Russian, French, German and Spanish. The syllabus teaching materials for each subject are all developed by subject experts according to the requirements of the curriculum and are approved by the Primary and Secondary School Teaching Materials Board of SEDC.

As far as higher education institutions are concerned, SEDC laid down the basic requirements and principles for course designs. The institutions are responsible for the formulation of their curricula and syllabuses in line with SEDC requirements and in accordance with social demand, as well as their own conditions. As a general pattern, higher education institutions offer optional courses in addition to compulsory subjects. The development of standard textbooks for higher education institutions must be approved by specific subject committees organized by SEDC.

The System of Examinations, Promotions and Certifications

Primary and secondary schools administer four types of examinations (TE), school year examinations (STE), completion examinations (CE), and entrance examinations (EE). In primary schools, TEs, STEs, and CEs are all confined to the subjects of Chinese and Mathematics. The entrance examination to the lower-middle school is being phased out. The upper-lower-middle school EE is of a selective nature and is usually combined with the middle school CE. The upper-middle school CE is independent of the higher education EE. The former is a qualifying examination and the latter a selective one. The higher education EE is a common national examination with separate provisions for liberal arts candidates and science candidates. Successful CE examinees of primary and secondary are awarded completion certificates, whereas university students will be awarded the completion certificate and a degree after passing various examinations and assessments.

Educational Assessment, Evaluation and Research

Educational evaluation is an important form of supervision of the performance of schools and institutions. Since the 1980s, educational evaluation has been given due emphasis and has experienced rapid development. In higher education institutions and specialized secondary schools, assessment mainly consists of qualification evaluation, standard evaluation, and excellence evaluation. At the primary and secondary levels, the evaluation normally covers the aspects of purpose, school management, educational quality, and school conditions. Educational evaluations are normally conducted by local governments and the educational authorities.

With regard to educational research, a multilevel research network has been established with over 10,000 full time research personnel in the country. Research funding is provided by the state and the local authorities through special funds and projects. Apart from basic educational theories, the topics of educational research are mostly concerned with the changes and development of Chinese education as well as educational and teaching practices. Research results can thus directly serve both educational policy-making and the educational reform process.

In the early 1990s, the key research topics were as follows: the relationship between rural educational development and the advancement of rural society; the main issues concerning the theory and practice of ethnic minority education in China; the theory and practice of the integration of education with productive labour, the theory and practice of Chinese educational legislation; the reform of teacher education and the building of the teaching force; the reform of primary and secondary school curriculum

and teaching materials, the reform of teaching methods and the examination system literacy education in China, and so on.

6.10 The Formal System of Education in Sri Lanka

Secondary Education

There are two categories of schools in Sri Lanka – government schools and non-government schools. The non-government schools consist of private schools, estate schools, *Pirivena* institutions, approved/certified schools, preschools, international schools, and special schools. *Pirivena* are educational institutions attached to Buddhist temples catering primarily to the education of Buddhist monks and also conducting general education classes for lay students. There is a special category of about 30 very large prestigious schools called "national schools" having 3,000 to 6,000 pupils each.

General education is divisible into four stages: primary (years 1-5), junior secondary (years 6-8), senior-secondary (years 9-11), and collegiate (years 12-13).

Age of admission to school in year 1 is 5+ years and all children are expected to remain in school upto year 11 (age 15+), although there is no legal provision to enforce compulsory schooling.

There is a fairly high rate of dropout and grade repetition at different levels. The school system has about 4.23 million pupils and about 180,000 teachers with a pupil-teacher ratio of 23:1 for the system and 32:1 for the primary level. There is no male female gap either in terms of access or success in school education. In regard to enrollment, "female as a percentage to male" was 100 for the primary level and 109 for the secondary level in 1987-88.

Formal school education is free at all levels in all state and state aided institutes (except in a few fee-levying private institutions) and the medium of instruction is the mother tongue of the pupil. The essential textbooks are provided free to all students upto the senior-secondary level (year 11). A scheme to provide a free mid day meal to all has been in operation since 1989.

The school year lasts from January to December, with three terms separated by three holiday periods, and consists of a minimum of 190 school days per year. The lower-primary level (years 1-3) has 4 hours of work per day while the upper-primary, secondary, and collegiate levels have 5.5 hours of work per day.

Curriculum Development and Teaching Methodology

For the purpose of curriculum development, school education may be considered to consist of the four stages. There is a commonly prescribed national curriculum for years 1 to 11. At the secondary stage, the curriculum consists of the following subjects, some of which are interdisciplinary in nature: religion, first language, English, mathematics, integrated science, social studies and history, aesthetic education, health, physical education, and life skills/technical subjects. Life skills is a subject in years 7 and 8, and in year 9 pupils select one out of 53 prevocational type courses designed to cover a wide field of vocations. Pupils may choose a technical subject out of several options in years 10-11.

At the end of year 11, which is also the end of the span of general education for all, the General Certificate of Education Ordinary-level (GCE O-Level) examination – a centrally planned national school leaving examination–is held. Only those who achieve certain prescribed standards at GCE O level are permitted to enter the collegiate stage (years 12-13). Generally about 25-30 percent qualify to enter the collegiate level. The curriculum of this stage is discipline oriented and consists of a wide choice of subjects classified under three streams-arts, science, and commerce. Pupils select four subjects within any one of the streams for which they are qualified to enter. At the end of this stage, the General Certificate of Education Advanced-level (GCE A-level) is held. Schools with GCE A-level science streams have a course designed to provide computer literacy.

The National Institute of Education is responsible for the preparation of syllabuses of instructions, teachers' guides, and textbooks for the school curriculum. The curriculum teams consist of specialist officers from the NIE, teacher educators, and teachers seconded for service to the respective teams. The Education Publications Department is responsible for printing and distributing the textbooks.

The last major curriculum revision at the primary and secondary levels was effected in 1986 and that of the collegiate level in 1979. However, there is an on-going process of qualitative improvement of an informal nature to infuse important changes in both content and methodology and emerging current issues. But the actual curriculum, as transacted in the classroom, does not measure up to the expectations of the prescribed specifications. The teaching methodology still remains rather traditional and didactic in spite of efforts made to introduce activity-based learning rather than a teaching-oriented approach.

Educational radio and television programmes have been developed to support the learning of science, mathematics, and English.

The lack of continuity in education policy has resulted in sudden changes in the curriculum causing hardships to teachers and pupils. The relevance and balance of the curriculum and its academic bias and lack of sufficient flexibility are often questioned by critics.

The problem of making the school curriculum relevant to the needs of both the minority, who wish to proceed to higher levels of specialization, as well as to the large majority, who fail or do not wish to do so, has hitherto remained unsolved. The examination oriented rote-learning approach adopted by most teachers and pupils is also a major concern.

The System of Examinations, Promotions, and Certifications

A system of automatic promotion from one year to the next is practiced in principle, but there are exceptions as can be seen from the number of grade repeaters. The rule imposed in 1991 makes it compulsory for pupils to obtain the Junior Technical Certificate at year 9 to proceed further. The GCE O-level examination at the end of year 11 is the main national school leaving examination which also serves as the selection examination for the different streams of the collegiate stage. While the grades obtained at the GCE A level serve for certification, the aggregate marks are used to select students to the universities on an all island merit basis as well as on a district quota basis.

Sri-Lankan society places more faith in centrally controlled national examinations with identical criteria and standards for the entire country than on decentralized or school based assessment procedures. School based continuous assessment systems introduced at various times have met with strong opposition from parents and teachers and had to be abandoned. This has resulted in the classroom teaching – learning process becoming heavily examinations oriented to the neglect of more desirable objectives envisaged in the curriculum. National school examinations are conducted by the Department of Examinations.

Educational Assessment, Evaluation and Research

The Research Division of NIE is mainly responsible for conducting and promoting research. Prior to the setting up of NIE, research and assessments were conducted in an adhoc manner by various sections and individual officers of the

Ministry. Research in universities was mainly confined to theses and dissertations submitted for graduate degrees. The Planning Division of the Ministry conducts a school census every year, processes the data and makes summary statistics available to policymakers. The Department of Examinations analyzes the results of national examinations GCE O and A levels, which provide some feedback to the system.

The Research Division of NIE has carried out or sponsored several studies on issues, such as indicators of school effectiveness, management reforms, teacher requirements, school profiles, policy changes, pupil achievement, regional disparities, and so forth.

The main emphasis of research in the 1990s, as foreseen by NIE, is on problems and issues such as low achievement in certain subjects like mathematics, science, and English; establishing a minimum learning continuum for the primary level; non-formal approaches to basic education; the validity of the year 5 scholarship examination; experimental work in science; rehabilitation problems arising out of the ethnic conflict; devolution of power to the provincial councils; and quality improvement of teacher education.

There is no special allocation in the primary and secondary school budget for evaluation and research.

To study the Secondary Education system of these countries in detail, let us consult the following:

Edited by T. Neville Post Lethwait	*International Encyclopedia of National Systems of Education*, 1995.	pp. 207-212, 347-355, 441-447, 483-489, 913-919.

6.11 Activity

Compare the systems of examinations, promotions and certification in China and Malaysia and give suggestions for the improvement in Pakistani Education system.

6.12 References

1. T.H.Sodhi: *Secondary Education in UK. In comparative perspective, A Textbook of Comparative Education*, Vani Educational books, Vikas Publishing House Pvt. Ltd. pp.5-134.

2. T. H. Sodhi, Secondary Education in U. K. in comparative perspertive. A Textbook, Edited by T. Neville Post Lethwait; *International Encyclopedia of National Systems of Education*, 1995, pp. 207-212, 347-355, 441-447, 483-489, 913-919.

Unit - 7

SECONDARY EDUCATION IN PAKISTAN
(TARGET AND ACHIEVEMENTS)

Written by:
Dr. Sabir Hussain Raja

Reviewed by:
Prof. Dr. M. A. Bukhari

Are these equal, those who know and those who do not know?

(Al-Qur'an 39:9)

The ideology of Pakistan lays down two important obligations for the government. Firstly, education will be accessible to all citizens. Secondly it shall enable them to prepare an enlightened and civilized individuals committed to the cause of Islam. These obligations are in accordance with the teachings of the Qur'an, which recognises provision of education as a right of the individual.

7.1 Quaid-i-Azam's Message to the Pakistan Educational Conference

"I am glad that the Pakistan Educational Conference is being held today in Karachi. I welcome you to the capital of Pakistan and wish you every success in your deliberations which I sincerely hope will bear fruitful and practical results.

You know that the importance of education and the right type of education, cannot be over-looked. Under foreign rule for over a century, sufficient attention has not been paid to the education of our people and if we are to make real, speedy and substantial progress, we must earnestly tackle this question and bring our educational policy and programme on the lines suited to the genius of our people, consonant with our history and culture and having regard to the modern conditions and vast developments that have taken place all over the world.

There is no doubt that the future of our State will and must greatly depend upon the type of education we give to our children, and the way in which we bring them up as future citizens of Pakistan. Education does not merely mean academic education. There is immediate and urgent need for giving scientific and technical education to our people in order to build up our future economic life and to see that our people take to science, commerce, trade and particularly well-planned industries. We should not forget that we have to compete with the world which is moving very fast in this direction.

At the same time we have to build up the character of our future generation. We should try, by sound education, to instil into them the highest sense of honour, integrity, responsibility and self-less service to the nation. We have to see that

they are fully qualified and equipped to play their part in the various branches of national life in a manner which will do honour to Pakistan."

Let us go through:

Govt. of Pakistan, Ministry of Interior (Education Division)	*Proceedings of the Pakistan Educational Conference held at Karachi from 27th Nov. to 1st* December, 1947.	pp. 5-10

In Pakistan, it was consistently expected of secondary education to prepare adolescence for effective participation in concerns of the society as good citizens of Pakistan committed to Islamic values of truth, benevolence and justice and as its useful members contributing to economic and technological development. The Seventh Five-year Plan reasserts desirability of pursuit of aims of strengthening self-respect, self-esteem and love for humanity. It further proposes that students adopt learning as a life-long activity and that their potentials should be actualised in accordance with their abilities. Secondary Educationl would, therefore, offer diversified programmes in accordance with the differentiated gift of intelligence from Almighty. Talent should be groomed for developing a strong leadership group so vital to socio-cultural, economic and technological development of Pakistan.

Secondary Education is the intermediary stage as well and cannot be de-emphasised in the interest of continuity. While elementary education during the formative years of a person, leaves the lasting impact, secondary education helps oneself in branching off to various specialities of higher education. Secondary education begins to expose students to differenciated roles of science, humanities and social sciences. This is also an appropriate stage to provide children with a sense of history and national perspective and give them opportunities to understand their constitutional duties and rights as citizens. Conscious internationalism of a healthy work ethos and of the values of a humane and composite culture will be brought about through appropriately formulated curricula.

For deeper study, let us consult:

Virendra Singh	*Education, Concept and Management,* Sar Publishers New Delhi, 1991	pp. 65-70

Because second level manpower usually forms the backbone of a democratic society, besides grooming talent, secondary education should enhance training of larger number of second level workers such as sub-engineers, para medicals, supervisors in industry, secretarial staff for offices and primary school teachers, etc.

The secondary education should become a terminal stage for a majority. Emphasis should, therefore, shift from general type of education to vocational and technical orientation for which diversified curriculum should be offered.

For the training of second level workers, Diploma courses in larger number of areas might be offered. However, such students should also be assured of upward mobility by offering degree programmes in relevant disciplines. This step would de-emphasize importance of degree programme primarily in arts. Education should thus fulfil manpower requirements through restructured organization.

Secondary education has an important role to perform in accelerating the pace of development of a country by providing second level manpower. It must meet the skilled-manpower needs of the country because education, as a whole, needs to be more responsive to social and economic development requirements. To sum up, secondary stage is a critical stage in the sense that:

a) It has to be a complete stage for laying the foundation for training for the skilled manpower needs of the country.

b) It is a terminal stage as, diversion of students takes place at this level and selection for various branches, such as Science, Engineering, Medical and university education is made. Second level skilled manpower training for technical, vocational and para-medical areas is provided.

Hence, it has to be re-organized in such a way that it actually becomes a complete and a terminal stage so that those seeking employment may have gained sufficient skill and training to be accepted in the field.

Reading:

Dr. Mukhtar Ahmed Bhatti	*Secondary Education in Pakistan. Perspective Planning, National Education Council*, G-8/4, Islamabad, 1987	Pp. 70-74

7.2 Secondary Education — its Dual Nature

The secondary level of education generally serves a dual purpose as a terminal stage for a large number of students and as a preparatory stage for higher education for others. The content of studies of the existing secondary programme is dominated by a curriculum of a general nature which serves mainly as a preparation for higher education. The increasing need for middle-level skilled workers in the developing economy of the country and the enrolment of a growing proportion of the age-group in secondary schools warrant that secondary education should have a pronounced scientific, technical and vocational bias and be terminal for a considerable number of students. In view of the terminal and preparatory nature of the secondary stage, the courses and curricula should cater to these dual requirements. Therefore, Secondary Education Pattern would include:

(a) ***Shift to Scientific Technical, and Vocational Education***

The emphasis in secondary education should be shifted to science, technical and vocational education so as to achieve a ratio of 40:60 between the general stream on the one hand and the science, technical and vocational streams on the other. It should be noted that sciences form an integral part of courses in technical and vocational education and also serve as a basis for higher technological education. The general education stream also should follow a curriculum with an adequate content in science and mathematics.

(b) ***Science and Mathematics***

Teaching of science and mathematics which should form an essential part of all forms of secondary education should be improved through necessary changes in curricula, adequate laboratories and improving teachers' competence.

For a general improvement of the teaching of science and technical subjects, the mass-communication media, particularly, the television and radio should be effectively utilised.

(c) ***Equitable Development***

The pattern of the secondary system should be such as to maintain a minimum standard of facilities and teaching staff in all schools. It is suggested that the emphasis should be on equitable development of all secondary schools according to a well-designed plan. All government and government aided educational institutions should be open to all children on the basis of merit.

(d) ***National Training Schemes***

For those students who will not go into secondary education or will drop out from schools, non-formal avenues of training should be provided. An adequate training scheme should be introduced, which will include various forms of part-time and full-time vocational training for acquiring various types of employable skills.

(e) ***Future Plan Targets***

It is proposed that during the future Plan periods additional facilities of secondary education (Classes IX-X) would be created for increasing enrolment. These additional facilities will mainly be in the fields of science, technical education, agriculture, service trades and home economics.

Summary of Measures to be Adopted:

i) The expansion and improvement of facilities for general education and for scientific, technical and vocational education at the secondary level should be such as to achieve an enrolment ratio of 40:60 between the general arts programme on the one hand and the scientific, technical and vocational programmes on the other.

ii) Government and government-aided education institutions should be open to all children on the basis of merit.

iii) An adequate scheme of vocational training should be introduced for those students who do not go into secondary education, or drop out from schools, so that they are equipped with knowledge and skills necessary for productive employment within the local community.

Reading:

Ministry of Education & Scientific Research, Govt. of Pakistan, Islamabad	*The New Education Policy of the Government of Pakistan, 1970.*	pp. 6-7

7.3 National Aims of Education and Their Realisation (National Education Policy - 1979)

(a) ***Aims***

Aims of education are guide posts which provide purpose and direction to the educational system. Obviously, they should be consistent with our faith, national

ideology and aspirations. Since aims have to provide clear-cut framework, selection of the same need to be made boldly and with clarity of thought in order to provide a sound and meaningful base to the educational effort in the country. Consequently, the government have decided to adopt the following aims of education for the nation:

a) To foster in the hearts and minds of the people of Pakistan in general and the students in particular, a deep and abiding loyalty to Islam and Pakistan and a living consciousness of their spiritual and ideological identity thereby strengthening unity of the outlook of the people of Pakistan on the basis of justice and fair-play.

b) To create awareness in every student that he, as a member of Pakistani nation is also a part of the universal Muslim Ummah and that it is expected of him to make a contribution towards the welfare of fellow Muslims inhabiting the globe on the one hand and to help spread the message of Islam throughout the world on the other.

c) To produce citizens who are fully conversant with the Pakistan movement, its ideological foundations, history and culture so that they feel proud of their heritage and display firm faith in the future of the country as an Islamic state.

d) To develop and inculcate in accordance with the Quran and Sunnah, the character, conduct and motivation expected of a true Muslim.

e) To provide and ensure equal educational opportunities to all citizens of Pakistan and to provide minorities with adequate facilities for their cultural and religious development enabling them to effectively participate in overall national effort.

f) To impart quality education and to develop fully according to their capacity, each individuals potentialities, through training and retraining and to develop the creative and innovative faculties of the people with a view to building their capability to effectively manage social, natural and productive forces, consistent with the value system of Islam.

g) To provide a minimum 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) To create interest and love for learning and discipline among the youth and to ensure that every student is imbued with the realisation that education is a continuous and a life-long process.

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

(b) ***Secondary Education***

1. ***Policy Statement***

In the present educational structure, secondary education plays a very crucial role. It is both a terminal stage for majority of students and is also a significant determinant of quality of higher and professional education. The present four-tier system of education namely, primary, secondary, college and university, will be replaced by a three-tier system of elementary, secondary and university, in a phased manner. Classes IX and X will be added to all the intermediate colleges while classes XI and XII will be added to selected high schools.

Physical facilities such as science laboratories, teaching and audio-visual aids and hostels will be provided to the secondary schools, particularly in (distant) Mufassil areas to bring them at par with the facilities available in the institutions of urban areas.

A wide range of curriculum offerings will be introduced at the secondary stage for greater diversification according to the aptitude of the students.

2. ***Rationale***

Secondary Education plays a very crucial role in education. It is a terminal stage from where the students go to higher and professional education and is a major determinant of the quality of higher and professional education. It is, therefore, essential that secondary school curriculum provides a number of meaningful options to enable the students to select courses suited to their aptitude, interest and requirement.

Practically in all the countries of the world, the secondary education is of 12 years' duration and B.A./B. Sc. of 4 years' duration after secondary education. Even in our country, the Intermediate Classes (XI-XII) are not University classes. The courses of studies and examination of these classes are controlled by Boards of Intermediate and Secondary Education. Our Bachelor's degrees in professional subjects is also of 4 to 5 years' duration. But our ordinary B.A./B.Sc. courses are of 2 years' duration which is an anomalous situation. It is, therefore, necessary to re-structure the entire education system.

Reading:

Govt. of Pakistan, Ministry of Education	*National Education Policy and Implementation Programme*, Islamabad, 1979.	pp. 1-2, 32

7.4 Lessons From the Sixth Five-Year Plan (1983-1988)

Education

The approach was to reduce illiteracy and to expand primary education. The literacy rate was to go up from 27 to 48 per cent. The strategy was to use the mosques to accommodate primary classes and to involve the youth for mass literacy functional programmes specially to reduce the rural-urban imbalance. The participation rate of children in primary schools was targeted to increase from 48 per cent in 1982-83 to 75 per cent in 1987-88. In other words, 5 million additional children were to be provided primary schooling. Larger increase in girls' than boys' enrolment was projected.

During the Sixth Plan period, more than 12,000 primary schools in the public and private sector were added; the number of mosque schools increased by more than 17,000. Participation rate at primary level went up to 63.5 per cent (boys 80 per cent; girls 46 per cent). Although the target was not achieved, this was a substantial improvement.

In the case of literacy, there was only a three percentage point increase and the strategy of mass literacy through functional programmes for adults did not achieve the results envisaged and the short-cut methods employed to improve literacy were expensive. Apparently, the increase in literacy rate during the Sixth Plan period was via the primary education route.

Enrolment in classes 1 to 5 increased to 9.3 million in 1987-88 as against 6.7 million in 1982-83. This increase was possible as the recurring expenditure on education and training was picked up by the Federal Government as development expenditure and reimbursed to the provinces as they were unable to meet the commitment from their own resources. The targets of literacy and primary school enrolment were too ambitious, but reflected the aspirations of the people.

Planning Commission, Govt. of Pakistan.	*Seventh Five-year Plan 1988-93 & Perspective Plan 1988-2003.*	p. 10

7.5 Perspective Plan (1988-2003)

The second Perspective Plan was prepared in the context of the domestic and international economic framework discussed above, and in the light of the experience gained in the first Perspective Plan. Its main purpose was to provide a long-term economic and social policy framework so that the objectives to be achieved over a much longer period, could be incorporated in a medium-term framework. Within the longer term perspective, there existed areas which needed to be addressed in the short-term. These were: population control, the eradication of illiteracy, the elimination of load-shedding, development of appropriate technologies, reductions in the budgetary and balance of payments imbalances, improvement in the savings performance, complete control over water logging and salinity, the introduction of structural changes conducive to efficient growth and the creation of more employment opportunities, particularly for the educated unemployed.

With these objectives in mind, the major development targets of the Perspective Plan were:

- to reduce the rate of population growth from 3.1 per cent in 1987-88 to 2.6 per cent by the year 2003;
- to eradicate illiteracy among youth by the end of the Eighth Plan, through full enrolment of the primary age population;
- to provide the entire population with access to clean water;
- to provide all the urban areas and 60 per cent of the rural areas with access to sewerage facilities;

- to provide telephones to about 50 per cent of the population;

- to increase tertiary roads from about 80,000 km at present to about 140,000 km by the year 2003, against an estimated total requirement of 200,000 km;

- to provide a Rural Health Centre (RHC) for each Union Council;

- to gradually expand the level of health care facilities such as ambulances with a radio or radio links;

- to increase the installed capacity for power generation to fully meet growing demand; and

- to provide town development schemes, to accommodate the rapidly growing urban population.

For having better knowledge about the Perspective Plan, please go through:

Planning Commission, Govt. of Pakistan	*Perspective Plan, 1988-2003*	p. 23-25

7.6 Seventh Five-Year Plan 1988–93 (Education and Training)

1. Although much has been accomplished, the education system still suffers from chronic deficiencies, some of which are discussed in this section. These issues will be specifically addressed in the Seventh Plan. About 40 per cent of the children do not have access to education. This has perpetuated a high rate of illiteracy. Primary education facilities are available to only 60 per cent of the children in the age group of 5 to 9 yeas. Primary schools lack physical facilities; about 29,000 primary schools have no buildings and 16,000 schools have only one class room. The target of one teacher and one room for every class, the minimum essential requirement for quality education, appears difficult to achieve even in the next few years.

2. Although significant expansion has taken place in secondary education, it remains inequitably distributed among income groups and regions in the

country. The long distances involved in the availability of middle or high school facilities, is another important factor responsible for the low enrolment ratio, especially in the case of girls. Every education policy and plan had recommended that classes XI and XII be made part of the secondary education. Not much has been achieved in actual implementation.

3. A large majority of students, graduating from classes VIII and X have acquired no marketable skills for absorption in the economy. Class room instructions focus on external examinations which encourage rote memorization. A great deal needs to be done to improve the teaching of science and mathematics. A large number of secondary schools face a serious shortage of laboratories, science equipment and qualified science and mathematics teachers.

4. One of the greatest assets of a country is its manpower. The education system helps to develop technical and vocational abilities for the creation of a productive society. The existing system of education is producing a mass of unemployable youth. At present 81 per cent of matriculates go on for higher education. Of these, one-fourth are enrolled in technical and vocational institutions while three-fourths seek admission in the arts and science colleges. Table given below shows that enrolment in the technical/vocational and professional education has not increased in proportion to the increase in enrolment in general education.

ANNUAL INTAKE IN TECHNICAL/VOCATIONAL AND GENERAL EDUCATION AFTER MATRICULATION

	1972-73	1977-78	1982-83	1987-88
Technical/vocational courses	17.8	35.6	43.0	56.4
Arts & science colleges	68.4	95.2	125.5	175.0
Total annual intake	86.2	130.8	168.5	231.4
Percentage of those who join technical/vocational courses	*20.6	27.2	25.5	24.4

* This does not include 32,135 teachers trained under a special temporary arrangement to meet cumulative shortages.

Sixth Plan Review

5. Although the Sixth Plan achievements were lower than the targets, yet considerable progress was made in the education sector.

6. The focus of the Sixth Plan was on the expansion of primary education and a reduction in illiteracy. To achieve these objectives, 40,000 new mosque schools were to be opened and 15 million persons were to be made literate during the plan period. These targets could not be attained. Only 17,193 new mosque schools could be opened while the literacy programme could not make much progress due to the absence of an appropriate strategy. Enrolment in classes I-V could only increase by 2.6 million, raising the participation rate from 53 to 64 per cent. Enrolment in classes VI-X increased by 849,000 during the plan raising the secondary school participation rate from 22 to 26 per cent.

7. **The objectives of the Seventh Plan** in the education and training sector were as follows:

- Broaden the resource base for education.
- Universalize access to primary education.
- Substantially improve technical and vocational training facilities.
- Improve the quality of education at all levels and in particular of university education.

8. With the universalization of primary school facilities, secondary level education will be expanded so as to absorb the larger output from the primary schools. To provide quality education, each district will have one model school each for boys and girls. For this purpose, selected secondary schools will be upgraded to model schools in districts where such schools do not exist.

Secondary Education during Seventh Plan Period 1988-93

a) The Seventh Plan will further expand the secondary education facilities to absorb the increased output from primary schools. The curriculum at secondary level will be changed so that students leaving the system after classes VIII or X possess some useful skills to enable them to earn a living. In classes VI, VII and VIII, students may be required to opt for

one skill-oriented subject such as agriculture, home economics, metal work, electricity, woodwork or furniture making, etc. This will enable a class VIII graduate to practice that skill or enrol in a vocational school for further training.

b) Skills training in classes IX-X will be bracketed with the two elective arts subjects so that schools which are unable to offer any skill training may continue to offer traditional optional subjects. Skills training in classes IX-X will be more sophisticated in order to turn out laboratory technicians, dental technicians, typists, accountants, etc. Where technical teachers are not available, local artisans will be engaged on a part-time basis.

c) During the Seventh Plan, the participation rate will increase from 30.4 per cent to 41.6 per cent to 24.1 per cent at the high stage. The overall participation rate for classes VI to X will rise from 25.7 per cent to 35.3 per cent. It is expected that girls' enrolment will increase more rapidly than that of boys.

d) A large number of primary and middle schools for girls will be upgraded. Admission to class IX will be selective, based on the student's cumulative record, including class VIII examination and other tests such as scholastic and aptitude tests. Construction of additional classrooms and improvement of existing buildings of middle and high schools will be carried out to cater for additional enrolment coming from the primary schools. In urban areas, a second shift in secondary schools will be introduced, wherever possible.

For further details please study:

Planning Commission, Govt. of Pakistan	*Perspective Plan, 1988-2003*	pp. 243-248

Major physical achievements of secondary education during 1988-89 are shown as under:

Estimates of Major Physical Achievements for Primary and Secondary Education During 1988-89

Programme	Targets	Achieve-ments	Percentage Achievement
Upgradation of:			
i) Primary schools to middle level	767	767	100
ii) Middle schools to high level	635	635	100
Establishment of new high schools	18	15	83
Construction of buildings of middle and high schools	200	200	200
Consolidation of middle high schools	401	401	100
Addition of classes XI & XII in high schools	116	116	100

Source: Planning and Development Division.

Physical Targets and Estimated Achievements of Secondary Education (Federal and Provincial) 1993-94

	Targets (Number)	Estimated Achievement
Secondary Education:		
Upgradation of primary schools	716	716
Opening of middle schools	369	369
Addition of class XI-XII in high schools	52	52
Establishment of new high schools	3	3
Reconstruction of building of middle schools and high schools	699	699
Consolidation of existing secondary schools	145	145

Source: Planning & Development Division

Enrolment

The additional enrolment at the primary level during 1993-94 is 1.412 thousand with 1.066 thousand male and 346 thousand female children. At the middle level additional enrolment during the current year comes to 330 thousand — 188 thousand male and 142 thousand female students. Total high level additional enrolment has been estimated at 99 thousand out of which 37 thousand were male and 62 thousand female students. At college level the additional enrolment during the current year is 34 thousand (13 thousand male and 21 thousand female) students. The additional increase in the enrolment at primary level during the current year is 9.1 per cent of the overall

enrolment at this level. At the middle stage, it is 8.6 per cent and at the high level 7.3 per cent. At college level, the additional increase in enrolment is 5.7 per cent of the overall enrolment. Estimated enrolment for 1993-94 and additional percentage increase is reflected in the following table:

Estimated Enrolment in Education Institutions by Kind, Level and Sex (Progressive)

(000 Nos.)

Level of Education	1992-93 (E)	1993-94 (E)	Change during 1993-94	%age in total enrolment
Total high level (classes IX-X)	1,255	1,354	99	7.3
Male	822	859	37	4.3
Female	433	495	62	12.5
Total Arts & Science Colleges	561	595	34	5.7
Male	341	354	13	3.6
Female	220	241	21	8.7

E: Estimated

Source: Ministry of Education.

Participation Rates

During the current year participation or enrolment rate at the secondary/high school stage, the overall participation rate for both sexes stood at 29.1 per cent — male 37.9 per cent and female 19.4 per cent. These ratios reveal that the participation rate for girls at all stages is about half of those for boys indicating low literacy rate among females.

Sex-wise Participation Rates

	1992-93			1993-94		
	Both	Male	Female	Both	Male	Female
Secondary/High Stage Classes (IX-X)	28.1	37.0	18.4	29.1	37.9	19.4

Source: Planning & Development Division.

7.7 Eighth Five-Year Plan 1993-98 (Education and Training)

Substantial expansion of education facilities took place in the country since independence. Enrolment at primary level increased from 0.77 million in 1948 to 12.414 million in 1993. About 60 Polytechnics, 540 colleges and 20 new universities were

established. Despite these achievements in absolute terms, more remains to be accomplished. Almost half of girls and one-fifths of boys of the relevant age group (5-9) are not enrolled in primary school; the adult literacy rate is still barely 35 per cent, far below that of other South Asian countries with similar levels of economic development; and there are severe gender and rural-urban imbalances both in the availability and quality of education. In general, Pakistan's social development has lagged far behind its economic growth.

The National Educational Policies and Five-Year Plans of Pakistan have emphasized universalization of primary education at the earliest possible, improving the relevance of curricula, reforming the examination system, expansion of technical and higher education, promotion of research particularly in science and technology at the universities and enhancing the quality of education in general. Despite substantial growth in the number of educational institutions, the desired goals could only be partially achieved due to rapid population growth and resource constraint.

The Eighth Plan will, therefore, focus on the following major aspects:

i) Universalizing access to primary education for all boys and girls of 5-9 years of age.

ii) Enactment and enforcement of legislation for compulsory primary schooling for all children of the relevant age group, wherever the primary school facilities become available at a reachable distance.

iii) Quantitative expansion and qualitative improvement of technical and vocational education to equip the youth with demand-oriented skills.

iv) Removing gender, and rural-urban imbalances.

v) Reforming the management and financing of the universities, de-politicising their campuses, and eliminating duality of their administrative control by the Provincial Governments and financial control by the Federal Government.

vi) Qualitative improvements of physical infrastructures, curricula (by making the courses demand-oriented), textbooks, teacher training programmes, and examination system at all levels of education.

vii) Broadening of the resource base for financing of education through increased allocations and encouraging private sector's participation in provision of educational facilities at all levels.

During Eighth Plan period, 5.548 million additional primary school children (including 3.4 million girls) and 2.4 million additional secondary school children (including 1.0 million girls) will be enrolled. The participation rate for boys at primary level will increase from 84.8% to 95.5%, while for girls it will increase from 53.7% to 81.6%.

The accelerated enrolment at primary level will increase the demand for secondary education. Secondary school facilities will be expanded so as to absorb the increased output of primary schools. At secondary level (grades VI-X), the participation rate for boys will increase from 49.7% to 54.5% and for girls it will increase from 25.6% to 30.2%. The curricula of secondary schools will be reformed to make it demand oriented. A parallel system of vocational and skill-training secondary schools will be started on experimental basis and replicated if found successful. Buildings of selected schools will also be used to provide training in vocational skills in the evening shift on demand basis to the dropouts of the general school system. Private sector will be encouraged to establish new quality education institutions. Each district will have at least one model school for boys and each division will have one such institution for girls in the public, or preferably, in private sector. Government will establish new model schools in only less developed districts where such institutions do not exist. The Eighth Plan emphasis will be on improving quality of all secondary schools.

Secondary Education

Facilities for secondary education will be expanded to absorb the increased output from primary schools. For this purpose, about 2.4 million additional seats in classes VI to X will be created by upgrading primary and middle schools, establishment of new high schools and adding classrooms in the existing schools. Construction of additional classrooms and improvement of the existing buildings of the schools will also be carried out. In urban areas, second shift will be introduced in selected secondary schools where ever feasible. During the Plan period, the participation rate at the secondary level will be raised from 50% in 1992-93 to 55% for boys and from about 26% to 30% for girls. (Details are given in table below.) Private sector is estimated to accommodate about 15% of the target enrolment at secondary level.

	Enrolment (000)		Addl. Enrol. (000)	Enrolment Ratios (%)	
	Benchmark 1992-93	Target 1997-98		Benchmark 1992-93	Target 1997-98
Boys	3463	4906	1443	49.7	54.5
Girls	1647	2609	962	25.6	30.2
Total:	**5110**	**7515**	**2405**	**38.1**	**42.7**

The Eighth Plan will encourage spread of quality education institutions to remote areas of the country. By the end of the Eighth Plan, each district will have a model school for boys and each division will have such an institution for girls in the public or private sector. Private sector will be encouraged to establish the quality education institutions. Government will establish model schools only in districts where such institutions do not exist under public or private sector. Efforts will be made to upgrade the quality of all secondary schools through provision of better qualified teachers and physical facilities.

Reading:

Govt. of Pakistan, Planning Commission	*Eighth Five-year Plan, 1993-98*, June, 1994	pp. 299-310

7.8 Economic Surveys, 1996-97 (Secondary Education)

Educational facilities have been expanding overtime, but have not kept pace with the requirements of a modernizing polity. The literacy rate which is estimated at 38.9 per cent (50 per cent male and 27 per cent female) in 1996-97, is still behind other countries of the region.

Enrolment in Educational Institutions by Kind, Level and Sex

(000 Nos.)

Level of Education Enrolment	1995-96 (E)	1996-97 (E)	Change during 1996-97	%age increase in total enrolment
Total high level (classes IX-X)	1,447	1,546	99	6.8
Male	967	1,006	39	4.03
Female	480	540	60	12.5
Total Arts & Science Colleges	735	830	95	12.9
Male	461	513	52	11.3
Female	274	317	43	15.7

E: Estimated Source: Ministry of Education Federal Bureau of Statistics.

Physical Targets and Achievements of Public Sector Programme.

During the period under review 1996-97, 13 new high schools were established. Buildings of middle and high schools were reconstructed, 1880 new rooms in secondary schools were added. Moreover, 600 secondary schools were consolidated and improved as shown under:

Physical Targets and Achievements of Public Sector — Secondary Schools (Federal and Provincial Governments combined 1996-97)

	Target (Nos)	Estimated Achievements	Achievements (%)
Upgradation of Primary Schools	1613	1613	100
Opening of Middle Schools	281	281	100
Establishment of New High Schools	13	13	100
Reconstruction of Building of Middle and High Schools	122	122	100
Addition of Classrooms in existing over-crowed Secondary Schools	1880	1880	100
Consolidation of Existing Secondary Schools	600	600	100

Source: Planning and Development Division.

Physical Targets and Achievements of Public Sector (Federal and Provincial Governments Combined 1997-98)

Secondary Education	Target (Nos)	Estimated Achievements	Achievements (%)
Upgradation of Primary Schools	1086	1086	100
Upgradation of Middle Schools	185	185	100
Upgradation of High Schools	131	131	100
Establishment of New High Schools	31	31	100
Reconstruction of Building of Middle and High Schools	85	85	100
Addition of Classrooms in existing over-crowed Secondary Schools	179	179	100
Consolidation of Existing Secondary Schools	92	92	100

Source: Planning and Development Division.

Participation Rates

During the Eighth Plan at higher level, a complementary pyramid of participation rate has been fixed for terminal year (1997-98) of the plan, which gives the specific target of 48.8 per cent at middle stage and 32.5 per cent at high stage. By the year 1996, the participation rate had been estimated as 31.6 per cent at middle at 29.7 per cent at higher stage. During 1997-98, participation rate for secondary/higher stage classes (IX-X) is estimated as 34 per cent for both the sexes, 43 per cent for male and 25 per cent for female.

Participation Rates

(Percent)

High Stage (Class IX-X)	1995-96	1996-97	1997-98
Overall Participation	28.7	29.7	34
Boys	35.9	36.2	43
Girls	20.4	22.3	25

Source: Fed. EMIS, Academy of Education Planning and Management, Economic Survey, 1996-97, Government of Pakistan, Finance Division, Economic Adviser's Wing, Islamabad.
And
Planning and Development Division, Government of Pakistan, Economic Survey 1997-98.

7.9 Aims and Objectives — National Education Policy 1998-2010

(a) *Aims*

1. Education is a powerful catalyzing agent which provides mental, physical, ideological and moral training to individuals, so as to enable them to have full consciousness of their mission, of their purpose in life and equip them to achieve that purpose. It is an instrument for the spiritual development as well as the material fulfillment of human beings. Within the context of Islamic perception, education is an instrument for developing the attitudes of individuals in accordance with the values of righteousness to help build a sound Islamic society.

2. After Independence in 1947, efforts were made to provide a definite direction to education in Pakistan. Quaid-I-Azam Muhammad Ali Jinnah laid down a set of aims that provided guidance to all education endeavors in the country. This policy, too has sought inspiration and guidance from those directions and the Constitution of Islamic Republic of Pakistan. The policy cannot put it in a better way than the Quaid's words.

These desires of Quaid have been reflected in the Constitution of the Islamic Republic of Pakistan and relevant articles are:

The State shall endeavour, as respects the Muslims of Pakistan:

a) to make the teachings of the Holy Qur'an and Islamiat compulsory, in order to encourage and facilitate the learning of Arabic language, and to secure correct and exact printing and publishing of the Holy Qur'an;

b) to promote unity and the observance of the Islamic moral standards: and (31.a & b).

3. Provide basic necessities of life, such as food, clothing, housing, education and medical relief, for all such citizens, irrespective of sex, caste, creed or race, as are permanently or temporarily unable to earn their livelihood on account of infirmity, sickness or unemployment: (38-d).

4. Remove illiteracy and provide free and compulsory secondary education within minimum possible period (37-b).

5. Enable the people of different areas, through education, training, agricultural and industrial development and other methods, to participate fully in all the forms of national activities, including employment in the service of Pakistan: (37-f).

6. The State shall discourage parochial, racial, tribal, sectarian and provincial prejudices among the citizens (33).

7. Reduce disparity in the income and earnings of individuals, including persons in various classes of the service of Pakistan (38-c).

8. Steps shall be taken to ensure full participation of women in all the spheres of national life (34).

The vision is to transform Pakistani nation into an integrated, cohesive entity, that can compete and stand up to the challenges of 21st Century. The Policy is formulated to realize the vision of educationally well-developed, politically united, economically prosperous, morally sound and spiritually elevated nation.

(b) ***Objectives***

1. To make the Qur'anic principles and Islamic practices as an integral part of curricula so that the message of the Holy Qur'an could be disseminated in the process of education as well as training. To educate and train the future generation of Pakistan as a true practicing Muslim who would be able to usher into 21st century and the next millennium with courage, confidence, wisdom and tolerance.

2. To ensure that all the boys and girls, desirous of entering secondary education, get the basic right because of the availability of the schools.

3. To lay emphasis on diversification so as to transform the system from supply-oriented to demand-oriented. To attract the educated youth with world-of-work from various educational levels is one of the policy objectives so that they may become productive and useful citizens and contribute positively as members of the society.

4. To make curriculum development a continuous process and to make arrangements for developing a uniform system of education.

5. To prepare the students for the world of work, as well as pursuit of professional and specialized education.

6. To develop opportunities for technical and vocational education in the country for producing trained manpower, commensurate with the needs of industry and economic development goals.

7. To improve the quality of technical education so as to enhance the chances of employment of Technical and Vocational Education (TVE) graduates by moving from a static, supply-based system to a demand-driven system.

8. To popularize information technology among children of all ages and prepare them for the next century. To emphasize different roles of computers as a learning tool in the classroom, learning about computers and learning to think and work with computers; and to employ information technology in planning and monitoring of educational programmes.

9. To encourage private sectors to take a percentage of poor students for free education.

10. To institutionalize the process of monitoring and evaluation at the lowest and highest levels. To identify indicators for different components of policy, in terms of quality and quantity and to adopt corrective measures during the process of implementation.

11. To upgrade the quality of higher education by bringing teaching, learning and research process in line with international standards.

7.10 Secondary Education — (National Education Policy, 1998-2010)

Conceptual Framework

1. Secondary Education (IX-XII) is an important sub-sector of the entire education system. On the one hand, it provides middle level work for the economy and on the other, it acts as a feeder for the higher levels of education. This level of education, therefore, needs to be revamped in such a way that it prepares young men and women for the pursuit of higher education as well as prepares them to adjust to their practical lives meaningfully and productively.

2. Secondary education is a stage, where a student enters adolescence. This is the most crucial stage of life. The basic perceptions and models of behaviour start taking shape and problems of adjustment with the new roles in life assume critical significance. Four years of secondary education, therefore, provide an excellent opportunity for the educators and educationists to conceive and launch programmes which initiate the learners into proper forms of behaviour and attitudes which lead to decent productive and peaceful life in future.

3. Secondary education could not attract attention of the successive governments in terms of efforts and investment. The perennial problem of illiteracy and the legacy of backwardness in the field of science and technology has forced the governments to assume greater priority to these two areas. Now, we have reached a stage, where the number of universities in public and private sectors have risen to 33 and the number of primary schools has crossed the mark of 150,000. It is, therefore, most appropriate to address the problems of secondary education seriously. With increased emphasis on quality of primary education and renewed efforts to check staggering dropout rate at primary level, the

secondary level of education now needs to be prepared for comparatively heavier influx of aspirants to this level.

4. Compared to primary and elementary education, the base of secondary education is very narrow. The female section has to bear the major brunt of the narrowness. Expansion of schools in an unplanned manner, therefore, needs to be discouraged.

The profile of **Secondary Education** is reviewed briefly. The demand of the present time leads to the following broad conceptual framework, that needs to be kept in view, for launching the programme of reforms:

i) Proper development of the personality of student at this stage is of immense importance.

ii) Adequate preparation to enter the world of work as well as pursuit of higher education.

iii) Greater access to secondary education specially for the female population, meeting the requirements of students from elementary education.

iv) Improved quality of teachers both in terms of academic and professional accomplishment. This will also imply supply of improved teaching-learning material and improved method of training.

v) Creating a balance between science and humanities teachers, especially in female institutions by amending the recruitment rules and providing other incentives, wherever necessary.

vi) Removing discrepancies existing in present secondary and higher secondary schools in terms of staff and budget.

vii) Keeping in view our own past experiences and that of other countries, the whole question of integrating technical and vocational education with secondary education needs to be re-examined. The new trends emerging in the world need to be taken seriously.

Objectives

1. To prepare the students for the world of work, as well as pursuit of professional and specialized education.

2. To develop the personality of students as enlightened citizens of an Islamic state and peace loving citizens of the world at large.

3. To ensure that all boys and girls, who are desirous of entering secondary education are not deprived of their basic right because of non-availability of the schools.

4. To design a system of recruitment, training and selection of teachers in such a way that well-qualified and trained teachers are available for all subjects offered at secondary level.

5. To prepare and make available such teaching-learning material which make learning rewarding and attractive.

6. To introduce a system of evaluation which emphasizes learning of concepts and discourages rote memorization.

7. To remove ambiguities and contradictions in the operation of 3-tier system of education and design rules, regulations and practices which ensure smooth functioning of the system.

8. To adopt a balanced approach towards integration of technical/vocational education and evolve a system, which is cost-effective and practicable.

Physical Targets

The present participation rate at secondary level is 32%, which will be raised to 48% by providing new teachers and increasing the number of schools as given in the following table:

	1996-97	2001-2002
Participation rate at the secondary level	29.7%	48%
Participation rate at the higher secondary level	11%	13%
Number of secondary schools	11,000	18,000
Number of secondary schools teachers	160,000	216,000

For further reading, please go through:

Govt. of Pakistan, Ministry of Education	*National Education Policy 1988-2010*	pp. 5-8, 37-43

7.11 Activity

Prepare a comparison of sixth, seventh and eighth five-year plans regarding targets and achievements in secondary education.

7.12 References

1. Govt. of Pakistan, Ministry of Interior (Education Division): *Proceedings of the Pakistan Educational* Conference held at Karachi from 27th Nov. to 1st December, 1947, pp. 5-10.

2. Virendra Singh: *Education, Concept and Management*. Sar. Publishers, New Delhi, 1991, pp. 65-70.

3. Dr. Mukhtar Ahmed Bhatti: *Secondary Education in Pakistan, Perspective Planning*. National Education Council, G-8/4, Islamabad, 1987, pp. 70-74.

4. Ministry of Education & Scientific Research, Govt. of Pakistan, Islamabad, 1970. *The New Education Policy of the Government of Pakistan*, pp. 6-7.

5. Govt. of Pakistan, Ministry of Education, Islamabad, 1979, *National Education Policy and Implementation Programme*, pp. 1-2, 32.

6. Planning Commission, Govt. of Pakistan, *Seventh Five-year Plan 1988-93 & Perspective Plan 1988-2003*, p. 10.

7. Planning Commis-sion, Govt. of Pakistan; *Perspective Plan, 1988-2003*, pp. 23-25.

8. Planning Commission, Govt. of Pakistan: *Perspective Plan, 1988-2003*, pp. 243-248.

9. Govt. of Pakistan, Planning Commission: *Eighth Five-year Plan, 1993-98*, June, 1994, pp. 299-310.

10. Govt. of Pakistan, Ministry of Education, 1998; *National Education Policy*, pp. 5-8, 37-43.

—[ ]—

Unit - 8

TRAINING OF SECONDARY SCHOOL TEACHERS

Written by:
Dr. Sabir Hussain Raja

Reviewed by:
Prof. Dr. M. A. Bukhari

8.1 Introduction

As a nation, Pakistan is very young, but as a culture it is centuries old. To understand teacher education in Pakistan, it is necessary to look in retrospect at the many facets which have had a part in its development. The first facet is the values which are fundamental to the Muslim society. From the earliest days of Islam, Muslims have held education in high esteem, and for this there is religious authority.

The second facet of education in Pakistan is the creation and development of educational institutions perpetuating the values of the Muslim society. During the Pre-British period, the character and objectives of educational institutions fluctuated and remained uncertain because the matter was a private concern and the state never became conscious of the uplift of its subjects. Private educational institutions continued during the British period.

The third facet to be examined is the development and expansion of the curriculum in Muslim educational institutions. Language has had an important part in curriculum change and expansion. In the Maktab (school), the curriculum included those portions of the *Qura'an* which every Muslim was expected to know by heart in order to perform his devotions and religious functions. This meant that the medium of instruction was Arabic in the Arabic and the *Qura'an* Schools. Since Persian was the language of the court of the Muhammaden rulers of India, schools emphasizing the Persian language as the medium of instruction were established.

The fourth facet is developing the role and status of the teacher in the Muslim society. During the pre-Mughal period, the domestic system of teaching was practiced with the result that the homes of learned men and women became centres of instruction. Technical education was diffused by the system of apprenticeship, which meant that the particular skill was passed on from father to son. Teachers in the Qura'an schools were very often the Imams of a mosque, and their income was derived from landed endowments rather than from fees for services rendered as teachers. During the pre-British period, most teachers were self-trained and self-appointed. In general, teaching was considered a position which did not require remuneration, as such every one was good enough to teach. This meant, therefore, that a system of teacher education did not exist, since training of teachers was not felt to be required.

At the beginning of the British period, the general education of the average primary teacher was poor, hardly better than that of the pupils whom he was expected to teach. As training facilities, such as normal schools and training colleges, were

established, it was also expected that the status and qualifications of teachers would be improved.

The fifth facet of education to be viewed is the evolution of the methods of instruction within the Muslim society. Students in the Qura'an schools were taught the Arabic language by first learning the alphabets and then, as soon as they could read, by reciting *"Suras"* or chapters of the Qura'an. Students in the Persian schools learned selections of the didactic and practical works of Saadi, Hafiz and other writers of Islamic culture by heart. As early as the fourteenth century, Ibne Khuldun was protesting against the methods of teaching then prevalent in the Muslim West, and was boasting of the superiority of Oriental methods by which the teaching of the art of writing was separated from instruction in the Qura'an. Akbar introduced a teaching reform which permitted students to learn things in months that previously took years. There were others who were interested in seeking improvement of teaching methods, especially Aurangzeb, who objected to learning things without being able to relate them to one's environment.

During the British period, an increased awareness of the needs for the improvement of methods of instruction was evidenced and attempts at improvement were made through the development of training institutions. In Pakistan, today it has been recommended that the teachers should, as for as possible, make use of modern methods of instruction. The prevailing teaching methods are more mechanical communication of theoretical book learning in which too much stress is laid on more memorization.

8.2 Reorganization of Teacher Education

At the time of independence in 1947, the entire educational system of the country was geared to produce a class of people who would serve the bureaucracy to perpetuate the old socio-economic order in the country. The socio-economic order was designed by the colonial powers to exploit the masses of the sub-continent. All curricula, textbooks and teaching materials were, therefore, devised to serve the cause of the vested interests and not to cater to the creation of a dynamic and progressive society in the country. The first serious effort to rationalize the education system was made by the commission on National Education in 1959 which conceded that 'no system of education is better than its teachers who serve it'. The educational philosophy of Pakistan as it pertains to teacher education, is revealed in the following objectives as recommended in the Commission's report.

The teacher should:

a. Be academically well trained in the subjects he teaches.

b. Have had sound professional training in how to teach his subjects.

c. Have had sound professional training in how to understand the children in his charge.

d. Have a deep sense of professional honour.

e. Have a security of tenure and a scale of pay commensurate with his status.

f. Be working in an environment which honours him for the contribution he makes to society.

The Education Policy 1972–80, suggested that in order to meet the massive requirements of the teachers at all stages, facilities for teacher education would be increased by reorganizing teacher education programmes and by introducing innovative techniques. It was also mentioned that many of the courses of teacher training were out-dated and not oriented to the scientific and technological aspects of education or the use of modern methods and techniques.

National Education Policy 1978 has remarked the teacher as the pivot of the entire educational system and has suggested to strengthen the teacher education by orienting the massive number of teachers at all levels.

For having deeper concept about secondary school teacher training, let us consult the following book.

R. A. Farooq	*Education system in Pakistan, Asia Society for Promotion of Innovation and reform in Education*, Islamabad, 1994	pp. 38–50

8.3 Teacher Education in Pakistan

Teacher Education in Pakistan dates from developments in the first quarter of the nineteenth century. The first normal school was established in Lahore in May, 1856, and the first secondary teacher college around 1880. Classes for the Bachelor's Degree in

Teaching (B.T), a two-year course of study, were started in this secondary training college around 1905. In 1944 the report on Post War Educational Development recognized that all teachers must be trained.

After attaining independence in 1947, the Pakistan government realized the importance of education in a free country and started making plans to remove earlier colonial influences. During the First All Pakistan Educational Conference in 1947, committees on primary and secondary education were formed which recognized the role of the teacher in Pakistan. There was unanimous agreement "that a properly trained and reasonably well paid teaching profession was essential to the building of a great state".

Further, you can benefit from:

Ahmed Noor Khan	*Secondary Education in Pakistan*, 1983	p. 22

It has been well said that no system of education is better than its teachers. Stress, therefore, should be laid upon their pivotal role and it should be emphasized that none of the proposed reforms will succeed unless we are able to recruit to the teaching profession at all levels, men and women of the highest abilities, and train them and those already in service to the same standards as are expected in other countries and, at the same time, give them that status in society which their national importance warrants.

It is essential for a successful teacher to have the following characteristics: he should be academically well-trained in the subjects he teaches; he should have sound professional training in the methodology of the subject and the psychology of the students in his charge; and he should possess a deep sense of professional honour. It is also essential for him to have a security of tenure and a scale of pay commensurate with his status. Besides, he should work in an environment which honours him for the contribution he makes to the society.

All educationists agree that education should not aim primarily at instilling mere facts, but at training character, personality, citizenship, or whatever their phrase may be. They say, and rightly, that the teacher is more important than the method. Every teacher's training college knows (or should know) that an important consideration, of even greater consequence is the question how and by whom he is taught. Teaching at levels must be regarded as something more than training the students in accomplishments; its proper business is to train him how to think and feel, how to

praise his experience, and how to discover for himself a good way of life. Every cher who is really a teacher will have his own way of doing this and he will do its best with the subject he has made his own. Within certain limits any subject will do for study; the important questions are: Whose mind has the subject gone through. What has happened to it in his mind? And how much vocation has he for teaching? Given the right teacher the best students will profit from his care; without him they will be handicapped at the best and repelled at the worst. One of the first requirement of a teacher, therefore, is that he should himself be an educated person, for ultimately all educational techniques end in the teacher in his classroom, standing in the presence of those whom he teaches. That alone is of supreme and ultimate value.

Reading:

Professor (Mrs.) Naseem Jaffer Quddus	*Problems of Education in Pakistan*, 1990	pp. 270-276

The evolution process of Teacher Training remained a part and parcel of overall gradual development of education system in Pakistan marked by a slow growth pattern. Its importance was never fully realized, short supply of teachers, especially in science and technical subjects viz-a-viz of trained teachers, at all levels of education remained basic cause for low efficiency of the system. Inadequate preparation of prospective teachers is regarded a major factor for maintaining the low standard of education.

In Pakistan, as elsewhere, teacher training suffered due to insufficient training system, multi-grade classrooms taught by single teacher, over crowding in classes, lack of equipments, short supply of textbooks and lack of proper physical facilities. Obviously, it never helped the teachers to become creative and to voluntarily come forward to attain excellence in the job. This made the teacher stereotype and easy going.

At the time of independence in 1947, Pakistan inherited a system of education arising at utilitarian purposes. Soon upon independence, one of the country's priorities was to develop a system of teacher training. Pakistan Educational Conference held in Karachi from November, 27 to December 1, 1947, recommended to take steps for proper training of teachers and award of an adequate salary scale. Since then, Governments attempted to bring teachers training programmes in line with the developmental, ideological and socio-economic needs of the country. As a result of these efforts, following teacher training programmes for secondary school teacher emerged:

There are two types of programmes being offered for the training of secondary school teachers: one End - On, following first degree; and the other Concurrent, leading to B. S. Education. Supervisors and administrators are trained in the institutes of Education and Research or Departments of education in the universities. These institutes/departments offer courses leading to master degree and post-graduate work. Minimum qualifications required for admission to various training programmes and classes for which the teachers are trained are given below in the table:

Training Programme	*Qualification for Admission*	*Duration*	*Classes to teach*
Bachelor of Science Education (B.S. Ed)	Higher Secondary School Certificate or Intermediate	Three years	Secondary (IX-X)
Bachelor of Education (B. Ed.)	First Degree	One year	Secondary (IX-X)
M. A. Education	First Degree	Two years	Supervision/ Senior Admn. Positions
Master of Education (M. Ed.)	First Degree + B. Ed.	One year	Supervision/ Senior Admn. Positions

8.4 Training of Secondary School Teachers

The institutions preparing secondary school teachers are known as Colleges of Education. Presently there are 11 Colleges of Education. Advanced training and professional growth by awarding M. A. Education/M. Ed is the task of Institutes of Education and Research (IERs') or Departments of Education. Some Colleges of Education also offer Master Degree Programmes.

8.5

(a) ***B.S Education (12+3) Model***

There are two types of programmes being offered for the training of Secondary School Teachers namely B.S. Education known as Concurrent Programme where prospective teachers are admitted after passing Higher Secondary School Certificate or Intermediate. This programme comprises Academic courses of 9 credit hours,

specialization of 45 credit hours, elective courses of 6 credit hours, six professional courses of 18 credit hours and practical teaching of 13 credit hours.

(b) ***B. Ed. (14+1) Model***

The other programme is B. Ed where the prospective teachers are admitted after attaining first degree. The programme consists of five professional courses of equal weightage, two special method courses comprising content and methodology of equal weightage, one research-based individual project and practical teaching.

8.6 Training Through Distance Education

The Allama Iqbal Open University has introduced a Bachelor of Education degree programme through distance education. Thousands of students are enrolled in each semester. This programmes consists of two major components of theory and practice. In addition to assignment and final examination, the students are required to teach at least two lessons from their areas of specialization.

Reading:

Mr. Muhammad Hashim Abbasi	*Teacher Education in Pakistan (Country Paper)*, . 1995	pp. 1--9

Courses of study of both models are given below separately (Farooq, 1883).

8.7 B. Ed. (14+1) Model

	Course	Marks/ Weightage
i.	Perspectives of Education in Pakistan	100
ii.	Human Development and Learning	100
iii.	School Organization and Management	100
iv.	Evaluation and Guidance	100
v.	Society, School and Teacher	100
vi-ix.	Special 2 Methods Courses (Content and Methodology separately)	400
x.	Individual Project	100
xi.	Practice Teaching	200
	Total Marks:	1200

Some of the universities in the country develop their own programmes for the training of secondary school teachers. In the following lines, the programme of secondary school teacher training being run by the Colleges of Education within the jurisdiction of University of the Punjab is being given:

Courses of Studies (Govt. College of Education, Lahore)

PART I - THEORY

Part I:		Theory		900
Part II:		Practice Teaching		200
Compulsory Subjects:				
1.		Philosophy and History of Education		100
2.		Educational Psychology		100
3.		School Administration		100
4.	A:	Islamiyat/Islamic History & Muslim Culture (for non-Muslims only)	50	
	B:	Pakistan Ideology	50	100
5.	A:	Urdu Language & Literature	50	
	B:	English Language & Literature	50	100

Elective Subjects:

Methods of Teaching of the two subjects to be selected from any of the following groups:

A: *Humanities Group:*

Content: 100

Methods of Teaching: 100

1. Teaching of Arabic/Persian.
2. Teaching of Pak. Studies/History/Geography.
3. Teaching of Elective Maths/General Maths.
4. Teaching of English/Islamiyat.
5. Teaching of General Science/Urdu.

Note: Only one subject can be selected from each combination.

B: *Science Group:*

Contents: 100

Methods of Teaching: 100

1. Teaching of Physics

2. Teaching of Chemistry
3. Teaching of Biology
4. Teaching of Elective Maths.

Note: Only one combination out of the following:

i. Physics-Chemistry
ii. Physics-Maths
iii. Chemistry-Biology

PART II — PRACTICE TEACHING

Practice Teaching is based on the following:

i. Two demonstration lessons from both the elective subjects.

ii. Supervised practice teaching during which every student teacher is required to teach at least 80 lessons under the supervision of teacher educator of the respective college.

iii. The student teacher will be examined in two elective subjects. The student teacher will teach these lessons in the presence of Board of Examiners. (College Prospectus 1986-89).

8.8 B. Ed. (12+3) Model

1. *Academic Courses:*

a. Required courses: (9 Cr. hours)

i.	Pakistan Studies	3 Cr. hours
ii.	Urdu	3 Cr. hours
iii.	Functional English	3 Cr. hours

b. Specialization (45 Cr. hours)

i.	General Group	B. A.
ii.	Science Group	B. Sc.
iii.	Commerce Group	B. Com.
iv.	Agriculture Group	B. Sc. Agri.
v.	Home Economics Group	B. Sc. Home Economic
vi.	Industrial Group	B. Tech. (24 Cr. Hours)

c. Elective Courses (6 Cr. hours) for all and only 3 for Industrial Group. Any three from the following not directly related to the area of content specialization:

1. Cultural Anthropology
2. Socio-Economic Problems
3. Political Science and Current Affairs
4. Environmental Sciences/Earth Sciences
5. Human and Commercial Geography
6. Military Science
7. Islamic Culture
8. Study of Literature: Urdu/Pushto/Punjabi/ Baluchi/English/Persian/ Arabic

2. *Professional Courses (Six courses)*

a. Required (18 Cr. Hours)

The name as in 14+1 Model scheme of studies.

Additional courses required for industrial group (only 6 Cr. hours)

1. Introduction of Vocational Education
2. Occupational Analysis
3. School Shop Management

b. Special Methods of Teaching (6 Cr. hours). Any two subjects from the following areas of specialization:

1. General Group
2. Science Group
3. Agriculture Group
4. Home Economics Group
5. Commerce Group
6. Industrial Group.

(6 Cr. hours would be split up into three courses of 2 Cr. hours each).

c. Professional Electives (3 Cr. hours for all except Industrial Group). Any one of the following:-

1. Educational Planning
2. Guidance and Counselling
3. Curriculum Development

4. Comparative Education
5. Education of Exceptional Children
6. Theory and History of Education
7. Modern Trends in Teaching
8. Preparation and Use of Instructional Material
9. Educational Technology.

d. Practice Teaching (13 Cr. hours)

It should be pointed out here that above programmes were approved by National Committee on Teacher Education and were implemented in 1976-77. But, some of the universities have made some changes at their own. In spite of all these efforts to revise the courses of studies, the teacher education programmes have invited lot of criticism. The courses which the prospective teachers undergo are defective both in respect of content and duration. (12+3 Model) has been introduced in 3 colleges and is meant for science teachers only.

Nine months duration is too short a period. It may be added that out of a list of 119 countries, 52% offer four years teacher training programme and some extend it to five/six years. Even in Nepal and Sri Lanka two years courses are offered. Iran and Philippines attach still greater importance and have a four years teacher training programme. (Bhatti, 1987). Academic and professional qualifications of teachers do contribute in raising the standards of education. Low standard of education is generally attributed to the low level of teachers' qualifications. To overcome this problem, the 12 + 3 programme of secondary school teacher training needs to be encouraged which can ultimately be replaced with 12 + 4 programme for having properly qualified teachers (Farooq, 1983a).

8.9 Practice Teaching

According to the curriculum document, student teaching forms the most important aspects of a teacher education programme. It puts theory into practice and provides an opportunity to prospective teachers to have a real feeling of teaching-learning situations. It should include teaching by the student-teachers, observation of lessons and sharing of classroom experiences through group discussions. In the document it is proposed that practice teaching should be of six weeks duration divided into short term (2 weeks) and long term (4 weeks) periods. The short term practice

teaching should commence at the end of first semester, while long term practice follows the second semester. (Farooq, 1988).

Better supervision of practice teaching and extension of its duration is also required as it affords an opportunity to weld theory and practice and thus test the efficiency of teaching devices and also help in developing communicative competence which is an essential asset for a teacher (Bhatti, 1987).

8.10 In-Service Training

The in-service education and training of teachers is conventionally defined as:

Those education and training activities engaged in by primary and secondary school teachers and principals, following their initial professional certification, and intended mainly or exclusively to improve their professional knowledge, skills, and attitudes in order that they can educate children more effectively. (Bolam, 1980).

In-service education is designed to promote the continuous development of the teacher after he enters the teaching profession by providing a planned and systematic instruction within an educational setting. the need for further study is directly related to the ability of a teacher to perform his teaching task. The more the nature of his role changes, the more frequently the teacher must receive in-service education. An experienced teacher may need such added training because of a change in his assignment, location of work or socio-economic composition of the population.

For further study, the following source can be consulted.

Dr. K. A. Farooq	A survey study on the problems and prospects of teacher education in Pakistan. 1990.	pp. 7-13

Meaning of INSET

Teacher education is perceived as a continuous process which consists of three distinct but closely interrelated consecutive stages of: (a) initial training; (b) induction; and (c) in-service education and training (INSET). None of these stages seems dispensable as each occupies a significant place in the continuum. The initial training or pre-service education is offered just before a teacher takes up his first teaching assignment. By exposing the would-be teacher to psychological, sociological,

philosophical and technological ideas and principles this stage develops in him a basic insight into the profession and some key skills as required in various teaching-learning tasks and situations. This stage may well be termed as preparation for the life long journey into the teaching profession. The second stage starts when this newly trained teacher is inducted into the job of teaching in one or the other educational institution. This stage, especially in our country, is not very well defined and clearly identified. However, the period of probation is supposed to be roughly the period of one's induction into the organisation. This part of teacher education, although it occurs in less formal and least organised manner, helps the new teacher in gaining better understanding of the classroom realities, the tricks of the trade and the art of adjustment with the school environment and in developing in him greater degree of self confidence. These understandings are gradually developed in him during the course of his working with colleagues, interacting with superiors and while shouldering various responsibilities at the school. In our country, no serious thought has so far been given to consider and utilize the induction stage as a period of teacher education of the kind which will help the new entrant in initially settling and rooting in the peculiar environs of his recently chosen profession.

The third phase of the teacher education continuum viz. the in-service education and training (INSET), is supposed to be the longest and relatively more important than the other two stages discussed above. Several research studies have confirmed the positive contribution of INSET and its significant role in teacher education. The present day examination system permits reasonable success on even partial knowledge. Thus, the initial acquisition of the content which the teachers are expected to teach is frequently quite inadequate. In addition, the school curricula change every 5 to 10 years. Provision, therefore, has to be made for the teachers to continuously learn the subject matter as well.

A last but not the least, important rationale being put forward these days is that from the point of view of bringing social justice to teachers, such in-service training-programmes as would lead to the acquisition of degrees or qualifications by them are also necessary as this would mitigate the status differences created by a particular education system.

Purposes of In-Service Education and Training

A good number of INSET agencies these days are assigning a heavy weight to the purpose of upgradation of academic qualification of practising teachers, whereas, apart from this particular aim there are a number of other and sometimes more important

goals that these agencies need to strive to achieve through their courses and programmes. The Asian representatives at the Fifth Regional Consultative Meeting on Asian Programme of Education Innovation for Development (APEID) held in 1978 at Bangkok agreed on the following purposes of in-service teacher education in developing countries:

1. To provide adequate professional training so as to make teaching learning effective.

2. To keep the teacher abreast of new developments in curricular subjects and pedagogy.

3. To upgrade the academic qualification of teachers.

4. To develop the skills and attitudes responsive to emerging national development goals and programmes.

5. To make the teachers aware of the problems of the community and to develop the necessary skills and attitudes enabling them to be effective change agents in the community.

Scope of INSET

As had already been pointed out in the foregoing pages that in-service teacher education is a continuous on-going process and it is never supposed to come to an end during the professional life span of teachers. It may be provided any time between a teacher's joining of his services till his retirement from the educational set up in any capacity. It may and rather should be provided repetitively as per the demands of the individual and collective needs. From the angle of duration of INSET programmes, these may range from even one hour training to number of years structured and specialised education and training in education, educational administration, subjects of teaching and other areas of learning. The duration, in fact, would depend on the nature of personal, professional, group, school, local and national educational problems and needs arising from time to time due to various changes taking place at different levels in the society and their implications for schools, classrooms and individual chalk-face practitioners.

The scope of INSET may also be defined in terms of the kind of people and groups of them it embraces in its ambit. The term INSET in fact may sometimes appear to be a misnomer as it suggests in-service education and training of teachers alone. INSET does cover, in the first order, all teachers serving in all sorts of educational

institutions at all levels, be it a nursery school, an elementary school, a secondary school, or even a college or a university, a professional education center, a technical or industrial institute or other such institutions all seek to get their staff updated through various INSET programmes and activities. It is as relevant and valid for a private school or aided school as it is for a government run school or college. At the same time, it is also meant for all those personnel who are in one way or the other involved in the task of planning, organising, providing supervision, monitering, evaluating and facilitating education. Thus, apart from teachers we can consider of school inspectors, headmasters, curriculum developers, school counsellors, education officers, teacher educators, resource persons, textbook writers and INSET workers as fully eligible to receive the benefit of INSET as and when there needs and situation around them so demand. Of course, such a broad spectrum of INSET would obviously require a much more elaborate arrangement of facilities and nature system of INSET than what we have at the moment at our disposal.

The scope of INSET is quite wide from one mere stand point and that is the type and nature of programmes, activities and courses that are included in it. In-serving programmes and activities may broadly be classfied into two types viz. Award Bearing Programmes or Courses and Non-Award Bearing Programmes and Activities. Award-Bearing Courses and Programmes are those which, besides providing relatively longer duration education and training to the beneficiary, also earn him, on completion, an award in the form a degree or diploma etc. such courses have longer than four weeks or sixty hours duration and are not termed as 'Short Term Courses'. Universities, colleges and specialised institutions usually run such programmes or courses on regular basis. Non-Award Bearing programmes and activities have a great deal of variety. These may include orientation and refresher courses, exhibitions, action research and self-reading and writing by individual teachers which may be organised by research and development organisations, specialised educational institutions, university departments of education and of other subjects, voluntary and professional organisations and the schools themselves.

Further study, please consult:

Muhammad Akhter Siddiqui	*In-service Teacher Education*, Asish Publishing House 8/81, Punjabi Bagh, New Delhi.	pp. 3-16

8.11 Self-Assessment Questions

1. Critically analyse the on-going in-service training programmes at secondary level.

2. Prepare suggestions for the improvement of in-service teacher training programmes at secondary level.

8.12 References

1. R. A. Farooq: *Education System in Pakistan, 1994 Asia Society for Promotion of Innovation and Reform in Education*, Islamabad, pp. 38--50.

2. Ahmed Noor Khan: *Secondary Education in Pakistan*, 1983, pp. 22.

3. Professor (Mrs.) Naseem Jaffer Quddus: *Problems of Education in Pakistan*, 1990, pp. 270-276.

4. Mr. Muhammad Hashim Abbasi, 1995 *Teacher Education in Pakistan* (Country Paper), pp. 1--9.

5. Dr. R. A. Farooq: *A Survey Study on the Problems and Prospects of Teacher Education in Pakistan*, 1990, pp. 7-13.

6. Muhammad Akhter Siddiqui: *In-service Teacher Education*, Asish Publishing House 8/81, Punjabi Bagh, New Delhi, pp. 3-16.

Unit - 9

PROBLEMS, ISSUES AND TRENDS IN SECONDARY EDUCATION

Written by:
Dr. Sabir Hussain Raja

Reviewed by:
Prof. Dr. M. A. Bukhari

9.1 Education in Pakistan

1. Education ranks at or near to top in the social priorities of all countries. For those in the Third World, it assumes even greater importance, as it is to provide passage to a more promising future. Nor is this faith misplaced. Education is the only single source from which the skilled manpower needed for economic modernization is to come – scientists and engineers are not likely to immigrate to most Third World countries – but it is also relied upon heavily to promote an ambitious agenda of social and political changes.

Despite its importance, educational enterprises in the Third World do not have particularly impressive record of achievements. This is due to a variety of factors. Many of these countries have only very recently taken charge of their own destinies having been ruled by colonial masters, in some cases for centuries. These foreign rulers were largely in different to the educational needs of their subjects and usually did little to promote the cause of learning. The colonial experience itself introduced foreign values and institutions, which to varying degrees conflicted with the traditional cultures and lifestyles of the local population. Today, literacy is found only among small minorities and even that level of proficiency is often less than adequate for the requirements of modern science, industry and technology. With limited educational resources, the high birth rate of many Third World countries overburdens the system to such an extent that literacy is actually declining. The percentage of the population that is illiterate or semi-literate is expanding, particularly in isolated rural areas. Financial resources, not in abundance in many places, are in countries like Pakistan invested in education at an almost unbelievably low rate.

2. The development of education in Pakistan is confronted with just about all the problems that can be found elsewhere in the world and perhaps by a few that are unique. When the British struck a deal and departed the Indian subcontinent in 1947, Pakistan came out on the short end. As the larger of the two countries carved out of the jewel in the crown of the British Empire, India received the lion's share of the financial and military resources. But to make matters worse, India also received the bulk of the skilled manpower due in large measure to the fact that cost industry, commercial organisations and government organisations were on the Indian side of the border. Pakistan found itself with comparatively few educational institutions, especially colleges and universities. Politically, Pakistan was destined to create a state based on the religious principles of Islam, an effort that would be extended into the educational system. India, seeking to

avoid the complications implicit in this approach, although itself a society strongly religious in character, opted for a secular constitutional framework. In Pakistan, repeated constitutional failures and long periods of material law have not provided the kind of political environment needed for the smooth development of public policy in any area, especially in education.

3. The colonial system of education inherited by Pakistan from the British empire, had been designed to produce literate manpower to assist the colonial masters at the lower levels of governmental and economic administration. Fundamentally, their own interests guided the British in developing the institutions of their imperial holdings. They have been widely criticized for this, but on balance they did better by their subjects than did other imperial powers. Nor is altogether realistic to criticise imperialism for its failure to be guided by some alternative body of philosophical principles. Given its colonial purpose, the educational system introduced by the British way not particularly effective in producing creative and self-reliant citizens. Educational system was meant only for the few privileged who were supposed to govern the masses rather than to serve them. Even professional education was limited as the main stress was on liberal arts in order to provide a class of administrative generalists.

4. Pakistan educational labours have been Herculean in scope which probably accounts for the fact that they have brought forth modest results. Among the many reasons for this indifferent record are burgeoning school populations, limited budgets, political instability, erratic planning and continuing indecision over educational philosophy and goals. By illuminating problems and shortcomings, it is hoped, the solutions may become more readily apparent and the on-going educational enterprises may become more productively focused.

For further study, let us go through:

Louis D. Hayes	*The Crises of Education in Pakistan*, 1987	pp. 1-3

9.2 Secondary Education — Problems

1. The secondary education is the most defective stage in our entire educational organisation and it needs urgently a thorough examination and complete

reorientation. During the vital period of secondary education, the objective should be more inclusive, embracing the needs and problems of adolescent life which is the most critical period of individual development. The allied problem of the determination of the impact of society upon the individual and the reaction of the individual to society should be carefully solved. The fact cannot be overlooked that during the period of secondary education, the young boys and girls of the country are exploited by individuals and groups and their energies and impulses, instead of being canalised into worthy social purposes, are harnessed to destructive activities. The large body of youthful students provided raw material for the future leaders of every walls of life. It constitutes the biggest challenge to the nation and the salvation of the nation depends on facing and successfully meeting it.

2. Another point which may be mentioned in connection with secondary education is the great importance of programmes of educational and vocational guidance and of the provision of variety of curricula to suit different talent and aptitudes.

3. As it is clear that the secondary stage education has its own objectives in terms of the needs of the youth, therefore, it is recommended that:

a) The programme of secondary education be enriched by putting emphasis on humanities and social sciences and on the great principles of liberty of our culture in order to develop individual character and dignity among our youth to strengthen and purify the base of patriotism.

b) Secondary education programme must offer more diversified and enriched series of courses to prepare citizens in terms of their own capabilities and social and economic needs of the country.

c) There should be one and not several secondary school systems. Instead of having technical, agricultural, commercial and traditional high schools, the curriculum of the secondary schools should be broadened and enriched so that fuller opportunities may be provided for developing the talents of boys and girls in academic as well as in other non-academic and technical subjects. Under this concept, secondary schools both Middle and High would become multipurpose schools and provide general education with practical bias suited to the interests of the children and the life of the community.

Readings:

Prof.(Mrs.) Naseem Jaffar Quddus	*Problems of Education in Pakistan*, Royal Book Co., Karachi, Pakistan, 1990	p.p. 184-186

9.3 Educational Facilities

1. *Educational Institutions*

Educational facilities have been expanding overtime, but have not kept pace with the requirements of a modernising polity. The literacy rate which is estimated at 40 percent (51 percent male and 28 percent females) in 1997-98, is still behind other countries of the region. Both public and private sectors are involved in education. Government finances all public facilities, undertakes expansion schemes under its annual development programme while encouraging private sector's role in this field. In 1997-98, the existing network of educational institution consisted of 150,963 primary schools, 14,595 middle schools, 9,808 high schools, 673 secondary vocational institutions.

2. *Educational Enrolment*

Primary schools, including mosque schools, had an enrolment of 15.6 million, middle schools 3.8 million, high/secondary and vocational schools 1.6 million. Colleges had 981 thousand students on rolls while universities had 72 thousand. Enrolment in 1995-96 and 199-97 in various educational institutions alongwith incremental trends are reflected in the following chart:

(000 Nos.)

Level of Edu. Enrolment	1995-96	1996-97	Change During 1996-97	% age increase in Total Enrolment.
	(1)	(2)	(3) (2-1)	(4) (3/1)
Total high level (Classes IX-X)	1,447	1,546	99	6.8
Male	967	1,006	39	4.03
Female	480	540	60	12.5
Total Arts & Science College (E)	735	830	95	12.9
Male	461	513	52	11.3
Female	274	317	43	15.7

E: Estimated Source: Ministry of Education for primary to high level, Federal Bureau of Statistics for Arts & Science College, Professional Colleges & Universities.

(000 Nos.)

Level of Edu. Enrolment	1996-97 E	1997-98 E	Change During 1997-98	%age increase in Total Enrolment.
Total high level (Classes IX-X)	1546	1639	93	5.7
Male	1006	1034	28	2.7
Female	540	605	65	10.7

E: Estimated Source: Academy of Educational Planning and Management, Ministry of Education.

3. ***Physical Targets & Achievement of Public Sector Programme***

During the period under review 1996-97, 281 middle schools and only 13 new high schools were established. Buildings of 122 shelterless middle and high schools were reconstructed, 1880 new rooms were added. Moreover 600 secondary schools were consolidated and improved as shown in table.

Physical Target & Achievement of Public Sector Secondary Schools

(Federal & Provincial Governments Combined 1996-97)

Secondary Education	Target (Nos.)	Estimated Achievement	Achievement (%)
Up-gradation of Primary Schools	1613	1613	100
Opening of Middle Schools	281	281	100
Establishment of New High Schools	13	13	100
Reconstruction of building of Middle and High Schools	122	122	100
Addition of Classrooms in existing overcrowded secondary schools	1880	1880	100
Consolidation of existing secondary schools	600	600	100

Source: Economic Survey, 1996-97, Government of Pakistan, Finance Division, Economic Advisor's Wing, Islamabad.

(Federal & Provincial Governments Combined 1997-98)

Secondary Education	Target (Nos.)	Estimated Achievement	Achievement (%)
Up-gradation of primary schools	1086	1086	100
Up-gradation of middle schools	185	185	100
Up-gradation of high schools	131	131	100
Establishment of new high schools	31	31	100
Reconstruction of building of middle and high schools	85	85	100
Addition of classrooms in existing overcrowded secondary schools	179	179	100
Consolidation of existing secondary schools	92	92	100

Source: Planning and Development Division.

4. ***Participation Rates***

During the Eighth Plan at higher level, a complementary pyramid of participation rate has been fixed for terminal year (1997-98) of the plan, which gives the specific target of 48.8 percent at middle stage and 32.5 percent at high stage. By the year 1996, the participation rate had been estimated as 31.6 percent at middle and 29.7 percent at higher stage. During 1997-98, participation rate for secondary/high stage classes (IX-X) is estimated at 34% for both the sexes, 43% for male and 25% for female. The trends in participation rates along with gender break-down are given in table given below:

Participation Rate

(Percent)

High Stage (Classes IX-X)	**1995-96**	**1996-97**	**1997-98**
Overall Participation	28.7	29.7	34
Boys	35.9	36.2	43
Girls	20.4	22.3	25

Source: Fed. EMIS, Academy of Education, Planning & Management, Economic Survey, 1996-97, Government of Pakistan, Finance Division, Economic Adviser's Wing, Islamabad.

And

Planning and Development Division, Govt. of Pakistan.

Teachers in Educational Institutions by Kind, Level and Sex

Year	Secondary School Teachers (in thousands)	
	Total	Female
1981-82	72.1	22.4
1982-83	74.0	22.5
1983-84	82.1	24.9
1984-85	82.7	25.3
1985-86	85.8	25.8
1986-87	98.4	30.8
1987-88	106.5	34.1
1988-89	135.5	41.3
1989-90	148.9	43.7
1990-91	159.9	46.5
1991-92	163.7	48.3
1992-93	132.7	40.8
1993-94(P)	180.2	57.9
1994-95(P)	185.6	68.4
1995-96(P)	169.8	51.1
1996-97(P)	170.4	51.8

9.4 Medium of Instruction

a) The medium of instruction is of critical importance to the education enterprise: language is the important aspect of learning. Without it

nothing, which distinguishes human beings from other members of the animal kingdom, can be learned. There are three choices open to Pakistan: instruction in native language, i.e., Punjabi for Punjabis. Sindhi for Sindhis, etc. The second alternative is Urdu, the nominal official language. The third is English

b) Native languages are important elements in socialization and personality development. They are learned at home and provide identity in terms of one's culture and social tradition. A language policy designed to promote a high level of literary proficiency in these language would be, however, immensely impractical. In the first place, these languages, as already mentioned, lack the sophistication as required to cope with the demands of the modern world. They lack a technical vocabulary, to say nothing of a technical literature. To lose them altogether, however, wold be a significant social and cultural sacrifice. How to preserve and promote them is a difficult public policy question. To continue them as a required part of the school curriculum is a drain on resources and a burden on students. Time, effort and money are dissipated in developing language skills which are ultimately of limited practical value. Everyone learns a *mother tongue* whether they attend school or not. The educational system, at the primary level at least, should concentrate on the common language, largely to the exclusion of others. It is better to be literate in one language than to be illiterate in two or three.

c) Relying upon a single language at the primary level means that for some people, formal language training and linguistic proficiency would be in a language other than their mother tongue. In the long run, this is probably the most optimal approach and it has in fact been the policy of the government since the Quaid-i-Azam Muhammad Ali Jinnah. Even though many of the country's leaders have not themselves been thoroughly conversant in Urdu, they have, nevertheless, recognized the importance of a common, national language. Not only would all people in the country be able to communicate with each other, but that most elusive commodity, national unity would be promoted. A single language would have the additional advantage of economy. Books could be published in one language, understandable by all. Energies could be focused on enriching the national language by developing a broader literary and intellectual tradition.

d) Given the Practical advantages of such an approach, it would seem that the idea would be universally attractive and relatively easy to implement. But it is not. Despite the fact that there has been a commitment to develop literacy in Urdu as the national language since independence, the record is largely one of the failure. One reason is a natural reluctance to part with one's *mother tongue*. This is the language of intimate, oral communication. And for the people which are about 60% illiterate anyway, it is the only communication. Moreover, the Islamic Practice or isolation of women presents a structural barrier to implementing language policy. Few females attend school in rural areas, and only between one and four percent literate in the frontier province. The situation presents an almost impenetrable barrier to the expansion of Urdu literacy. Children receive their basic language skills from their mothers, few of whom are both literate and have Urdu as their first language. Considerably, less than half of the children attend school where they could learn Urdu. Consequently, the overwhelming majority of the population does not have exposure, either informally at home or formally in school, to literacy in the national language.

e) Another problem is the timid effort by the government to promote literacy and an Urdu language policy. Urdu cannot be made the national language if it is second, or third or fourth language. It must be the first language. Vigorous efforts must be made to enrich it, a circumstance that will not come about under a programme of censorship and government control of book publishing. Only when reading material is widely varied and readily available then people will be able to develop literary habits.

For deeper study, let us go through:

Louis D Hayes	*The Crises of Education in Pakistan.* 1987	pp. 159–160

9.5 Non-Availability of Audio-Visual Aids

Ignorance of better practices of teaching is one of the main obstacles in the progress of education in Pakistan. Teachers, being older, have had much experience than

their students. And all the students do not have same experience. It is only audio-visual materials, the use of which can revolutionize teaching, and can help decrease the amount of forgetting and increase the permanence of what is taught.

Reading:

Professor (Mrs.) Nasreen Jafar Quddus	*Problems of Education in Pakistan.* 1990	pp. 228–230

9.6 The Educational System Collapsed

1. The commonly held belief in Pakistan is that not with standing the increase of number of teachers, the educational system of Pakistan has completely collapsed. Broadly speeking, three kinds of arguments are suggested as reasons for this collapse. Firstly, the government is not investing enough resources according to the increase in population and, therefore, in the demand for education. Secondly, the quality of teachers is poor. Thirdly, society is indifferent to intellectual pursuits and is interested in education only as a screening device for the limited job opportunities.

2. The teachers are generally low paid and in the prevailing economic depression the woe fully underpaid *maker of the nation* have often been driven to desperate measure to push a little of their urgent demands. Undesirable as hunger strikes are, it cannot be contradicted that a hungry teacher is just as pitiable as any other hungry man, and the high more or intellectual discipline which is rightly assumed to be so attributes of the really good and able teachers does not make them less vulnerable to acute physical distress. For further study let us consult the following.

A:

Commission on National Education	*Report 1959*	p. 13

B:

Ijaz Nabi Muslim	*Introduction, Ijaz Nabi edition "The quality of Life".*	November, 11, 1986

9.7 Learning a Language

Learning of any concept/language is scintific process. Memory plays very important role in this learning process. Memory processes the incoming information, blends it with already stored information, interprets it and meaningful coding is done. So every language is to be learned through the same process. In a sense, most of the energies will be used up for learning so many languages. Which is total wastage of energies/sources. For getting further information about learning process and functions of the memory, please go through the following thesis.

S.H. Raja	*Development of Scientific Resoning in Primary and Early Secondary School Pupils* – Ph.D thesis, University of GlasGow, U.K – 1992	pp. 13-15

9.8 Diversification of Secondary Education

The most crucial issue confronting secondary education in Pakistan today is the diversification of course offerings so as to cater the varied needs of students both from psychological and economic (manpower) points of view. In spite of repeated policy statements, the emphasis on general education at secondary level continues unabated. Whereas the science stream seems to be somewhat established at the secondary stage, no significant advancement appears to have taken place for vocational/ technical/agricultural/ commercial/home economics and other occupational streams. This trend needs to be reversed if a viable link is planned to be established between secondary education and the world of work. The entire secondary school curriculum continues to be dominated by the elitist and white-collar approaches thwarting all attempts towards vocationalizatin during the last fifty years.

The Working Group on Secondary Education for the Seventh Five Year Plan and Perspective Plan constituted by the Planning Commission has addressed itself to this critical problem and given various alternative models to overcome to present skewed situation towards general education. According to the working group, even after fifty

years of our independence, "the number of baboos" previously turned out by the 'Macaulay's stream' has now only been multiplied manifold, because neither the curriculum nor the school organization and the plant facilities could change the emphasis from the theoretical to the practical, from the imaginary to the applied, and from white-collar to the blue collar positions". The working group emphasizes the production of second level workers who form the backbone of democracy. Subjects at this level should be offered according to the findings of 'surveys of needs approach' in specific areas. The subjects offered at this stage should lead to self employment or partial self-employment.

Let us peruse this interesting chapter on proposed future growth of secondary education in Pakistan and share the perceptions of the group in a critical manner:

Planning Commission, Govt of Pakistan	*Report of the Working Group on Secondary Education*, "For Seventh Five Year Plan (1988-93) and Perspective Plan (1988-2003)" Islamabad, 1987, pp.38-57.	pp. 71-72

And the book under mentioned as well:

Edited by Jon Lauglo, Kevin Lillis	*Vocationals Education*, Pargamon Press, Oxford, . 1988	pp. 24-26

9.9 Issues

There may be a long list of educational issues in Pakistan, such as:

a. Indoctrination or academic freedom,

b. Elitist or Mass Education – the question of quality or quantity in education, (Cadet Colleges and Public Schools),

c. Islamisation of education,

d. Role of Private Sector in Education,

Separate or co-education (women University),

f. Centralization, decentralization or localization of education,

g. Student Politics – unionization in educational institutions,

h. Internal or External system of Examinations – (Semester System)

We may discuss a few of them:

1. ***Academic Freedom – How Much?***

In a democratic society like ours, it is expected that all persons will have the freedom to express their opinions and advocate their view points in a peaceful and respectable manner. Educationists and scholars working in higher educational institutions are particularly expected to engage in independent inquiry and lead to the discovery of new facts in various disciplines. This process of discovery cannot be ensured unless these scholars are given academic freedom to try various alternatives and arrive at new theses even if they are opposed to "official" or "socially approved" policies and ideologies. This approach militates against the contention of fundamentalist group who think that all societies rest on the pillars of ideological foundations. The society will come to a state of decay if these ideological foundations are subjected to polemic discussion and their truth is challenged by any group. According to fundamentalist contention, certain set of truths and values have to be accepted per se as they provide the d' etre de tere for the existence of the society. Restraint of freedom is, therefore, necessary for the preservation of society. Sometimes unrestrained freedom also leads to conflict and tension in the society and creates a law and order situation which affects smooth functioning of all social institutions. As pointed out by Walter Bagehot, "one of the greatest pains to human nature is the pain of a new idea". All people do not have the ability to tolerate this pain and react in a hostile manner. Most people, therefore, believe in academic 'freedom' with some degree of 'restraint'. It is, however, difficult to maintain a balance as freedom and restraint are paradoxical terms leading to different sets of attitudes and approaches.

The major arguments of both the groups may be summarized as below:-

Academic Freedom is necessary in a society as it

represents modernism, liberalism and progressivism which are essential traits of a modern state,

- develops democratic institutions like adult franchise, free press, equal opportunity for all groups to participate in political affairs of the country,
- helps in critical inquiry and results in discovery of new facts and truths,
- provides opportunity to minority groups to project their view points.

"Appropriate restraint" on academic freedom is necessary as

- the society is based on ideological foundations which provide raison d'être for the state,
- preservation of religious truth and values is the fundamental duty of every state,
- opposing view points and ideas may lead to tension and chaos in society and create 'law' and 'order situation,
- 'majority' has the right to control and regulate educational institutions in an appropriate manner,
- Un-Islamic idea cannot be propagated in an ideological state like Pakistan.

For further study, please consult:

Ebiers, Henry & Lee. C. Gordon	*Curtail issues in Education*, Holt Rinehalt and Winston, New York, 1965	pp.

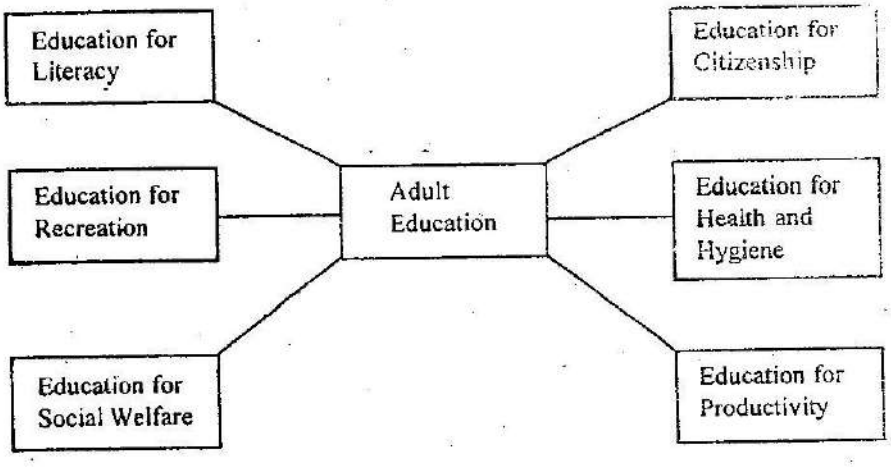
2. ***Adult Education***

Adult education is taken to mean courses of study and other activities which are undertaken voluntarily by mature people (i.e. people over the age of 18) without direct regard to their vocational value. There has been a growing criticism about the distinction between vocational and non-vocational education of adults-Vocational education also influences attitudes, values and development just as the non-vocational does.

Another review seeking to be all embracing and inclusive of all types of education for adults by Berteleson is "Adult education refers to any learning activity or program deliberately designed for adults. Its ambit is taken as spanning non-vocational, vocational, general, formal, non formal and community education and it is not restricted to any particular level.

The ultimate purpose of adult education is to assist in the continuous growth and development of every individual. According to UNESCO. "The term Adult Education denotes the entire body of organized educational processes, whatever their content, level and methods whether formal, or other wise. Adult education embraces all forms of educative experiences needed by men and women according to their varying interests and requirements, at their different levels of comprehension and ability, and in their changing roles and responsibilities throughout life." There is also a popular belief that adult education contributes to the transmission of values and attitudes which reflect the interests of the dominant groups in society.

From the above definitions it is evident that adult education is a part time activity for the adult to gain new experiences in academic field which will certainly enrich his working life, his personal life and also help him to become a good



citizen. An adult is a mature person. He is conscious of his weaknesses. By getting education by way of adult education programs he can open new frontiers of knowledge which he requires and which proves useful for him in every walk of life.

For detailed study of the Adult Education it will be useful to go through the following book:

B.R. Satija	*Adult Education: "Trends in Education"* Anmol Publications Pvt. Ltd., New Dehli, 1996	pp. 41–47

3. ***Population Education***

Education which is concerned with population is population education. Population education is a new concept and as such without a proper definition. However, various authorities have defined it in their own way. Some of these are as follows:

a) *Dr. V.K.R.V. Rao's views:* "The population education is a part of human resource development programme. Population education, is essentially, related to human resource development. Thus, population education is not only concerned with population awareness but also with developing values and attitudes so that both quality and quantity are taken care of".

b) *Viderman's views:* "The purpose of population education is to develop awareness, and understanding of the relations between population growth and national development both in short and long run and to develop an understanding of the consequences of individual decisions in the important area of reproductive behavior. A population awareness program, therefore, should provide the facts of population dynamics, of family life, of human reproduction that children will need. It should also show how the actions of each individual of the society affect the others. This is the moral and ethical purpose of population education".

c) *Weyland's view:* Wayland, emphasizing his view that the specific form which population education might take in any particular setting would need to reflect consideration of both the population policies and the characteristics of the educational system of that country lists six basic topics:

i. Basic instruction in popula
ii. To develop a basic und ocess of human reproduction.
iii. To understand the health hild be ing.

iv. To appreciate the relationship between quality of life for a family and its size.

v. To appreciate the significance of population characteristics and policies for social and economic development.

vi. Familiarity with the population and family planning program of one's own country.

Effects of Over-Population

1. *Increasing Poverty:* The per capita income is very low.

2. *Inflation:* Production is less. This causes rising prices of every thing. It has also created acute food problem.

3. *Housing Shortage:* The increase in population has created housing problem, especially in cities.

4. *Over Crowding in Transport:* Buses and Rail. This requires no elaboration.

5. *Rising Unemployment:* The problem of unemployment has become very acute.

6. *High Rate of Illiteracy:* Even those who are in school do not obtain individual attention.

Need for Population Education

The need for population education arises because of following reasons:

1. *The Population Explosion:* In almost all countries of the world, there occurs an unprecedented population growth. Serious attempts must be made for launching population education programmes for the younger generation. Children have to be educated about it.

2. *The impact of mass communication efforts in the National Family Planning Programme:* Pakistan, like other developing countries is having a national policy and programmes for birth control. The State conveys ideas about family planning and birth control to people through paintings, pamphlets, etc. The governemit thinks that through this way children are also educated. This is in fact incidental information

and incidental learning could be harmful. As such, population education requires to be systematically imparted through a well planned programme.

3. *The age composition of population in developing countries:* A characteristic feature of developing countries is that about 45% of its people are below 16 years of age. They will soon be adults. The reproductive behavior of this critical mass has been of crucial importance in controlling the rate of population growth. Hence there is need to develop population education programme.

4. *Education as Preparation for Citizenship and effective Contemporary Living:* In a broad sense population education is a means for preparing the younger generation for effective citizenship through educating them to face realities of contemporary living.

5. *Population education is a continuous process:* It is not to be stopped after educating one generation. Successive generations have to be educated. As such it is a continuous process.

To understand the factors of population increase, different methods of controlling population increase and to understand the difference among, Population Education, Sex Education and Family Education, please study the following books:

B.R Satija	*Population Education, Trends in Education*, Anmol Publications Pvt. Limited, new Delhi, 1996	pp. 335–354

Gomathe Mani	*Pop-Problems and Education, Education in the International Context, 1991*	pp. 47–54

4. ***Micro-teaching***

The quality of education that is provided to our children depends on the quality of our teachers. The quality of teachers, in turn definitely depends on the way in which they had received training through teachers' training institutions.

The question that immediately arises, is about the teacher education programme. Hence, we must take a peep into this programme.

The need of planning is essential. If our teachers are going to shape the destiny of our country, teachers' education has to assume a great responsibility and has to take recourse to some innovative and effective technique of training teachers. It was believed that just as the director brings the skill of giving life and form to a movie, so the teacher brings to the teaching-learning situation the skill with which he/she is able to control and use his/her teaching exercise and thus influence the other variables of the situation. This skill does not automatically come to the teacher with a certificate or diploma or a teaching contract. Rather, it is a skill developed through the awareness of the interacting elements in a teaching-learning situation, planning strategies for teaching base on this awareness, through the setting of sound objectives, assessing the result and modifying these objectives in terms of assessment.

To overcome the drawback of the practice teaching programme and there by to encourage the practice teaching programme, a new way emerged and that is, micro-teaching. Thus, the need to find out a proper solution for removing the defaults in the existing practice, Teaching Programme was reviewed and the micro-teaching arrived on the scene with a view to solve the varied problems.

What is Micro-Teaching

Micro-teaching is a procedure in which a pupil-teacher practices teaching with a reduced number of pupils in a reduced period of time with emphasis on a narrow and specific teaching skill. Thus micro-teaching is a scaled-down encounter in class size and class time. It is, therefore a skill-based approach to teacher training.

Micro-teaching is a technique of presenting a small portion of the lesson for detailed study and pin-pointed guidance by taking a micro-scopic view. The complexities of the usual classroom teaching are minimized by reducing the number of students in the class, the duration of the lesson, the portion of the content and the number of skills to be practiced.

Characteristics of Micro-Teaching

It is possible to understand the nature of micro-teaching from the

following characteristics:

1. *Real Teaching:* Micro-teaching is the real teaching because it takes place in real classroom situation in which the student-teacher and some students are involved.

2. *Specific Control of Teaching Practice:* The focus of micro-teaching has been mainly on training in specific control of practice where the methods of feedback and supervision could be appropriately manipulated.

3. *Specific teaching skills:* It focuses on developing specific teaching skills or tasks and not on the development of pupil's abilities.

4. *Scaled down teaching:* It is scaled down teaching:
   i. To reduce the class size to 5 to 10.
   ii. To reduce the duration of period from 5 to 10 minutes.
   iii. To reduce the size of the topic.
   iv. To reduce the teaching skill. A simple skill is practiced.

5. Highly individualized training device.

6. Micro-teaching is a device to prepare effective teachers.

Micro-Teaching Procedure (Steps in Micro-Teaching)

Accordingly, this technique is mainly for developing certain skills of teaching procedure which contains the following steps:

1. Modeling the skill
2. Planning a micro-lesson
3. The teaching session
4. The critique session
5. The replanning session
6. The re-teach session.
7. The re-critique session

To understand the procedure of Micro-Teaching in detail, let us study:

B.R. Satija	*Micro-Teaching, Trends in Education*, Anmol Publication Pvt. Limited, New Dehli, 1996	pp. 145-160

Brig. Dr. Allah Bakhsh Malik	*Micro-Teaching, Trends inEeducational Through*, 1991	pp. 75–80

9.10 Gender and Geographical Gaps

Surveys and library books reveal that:

1. During 1996-97, only 540 thousand females were enrolled in class IX-X as compared to 1006 thousand males.

2. During 1997-98, 605 thousand females were registered in High Schools in comparison with 1034 thousand males in Pakistan.

3. During 97-98, female literacy rate is 28% as compared to 51% male literacy rate in Pakistan.

4. Participate rate during 1997-98 year at secondary level is 43 percent for male and 25% for female.

For further details, please go through:

Academy of Educational Planning and Management (Ministry of Education)	*Economic Survey 1997-98*	p. 120.

And also

Planning and Development Division, Govt. of Pakistan	*Economic Survey 1997-98*	p. 121

Additional Reading:

Louis Rubin	*Sexism in the Curriculum, Curriculum Handbook Allyn and Bacon, Inc., Boston, London*, 1997	pp. 251-252.

To achieve 100% literacy rate, we will have to opt. Distance & Non-Formal Education mode, and modern electronic media like, E-mail, Computers and Inter-net work.

Furthermore, to enable the children to live a successful life, arrangements should be made for career guidance at secondary level to enable the students to choose subjects according to their aptitude, attitude and capabilities. Guidance councils as should be appointed in schools.

9.11 Value Education

John Dewey's view: "The value implies primarily to prize, to esteem, to appraise, to estimate; it means the act of cherishing something, holding it dear and also act of passing judgement upon the nature and amounts of values as compared with something else."

Objectives of Value Education

The education reform document challenges of Education (1985) has listed the various value-oriented objectives which are as follows:

1. This will do physical, intellectual and aesthetic development of personality.
2. It will inculcate a scientific temper, and democratic, moral and spiritual values.
3. It will develop self-confidence to innovate and face unfamiliar situation.
4. It will create awareness of physical, social, technological, economic and cultural environment.
5. It is able to foster healthy attitude to dignity of labour and hard work.
6. It will develope a dedication to uphold the integrity and honour and foster the

development of the country.

7. It will promote international understanding.

Contribution of Educational Values

Educational values are able to contribute the following advantages for individual and social life:

1. Method to earn livelihood and acquire material prosperity.
2. Developing vocational efficiency.
3. Developing character.
4. Developing healthy and balanced and personality.
5. Reorganization and reconstruction of experience.
6. Creating good citizenship.
7. Adjusting the environment and its modification.
8. Fulfilment of needs of a person.
9. Using leisure.
10. Promoting social efficiency.
11. National integration and national development.
12. Values for leaders and skilled workers.

Let us study the under mentioned books for more knowledge about value education:

B. R. Satija	*Value Education Trends in Education, Anmol Publications*, Pvt. Limited, New Delhi, 1996	pp. 394-427

Dr. Lalit Kishore	*Value Oriented Education, World Ever-Views* Doaba House, Nai Sarak, Delhi, , 1990	pp. 61-64

9.12 Computer and Information Technology

The new information and communication technologies are being employed by various government departments, commercial organizations, universities and professional colleges. The spread of computer awareness, knowledge about computer applications, induction of programming skills and enrichment of the learning processes are among the few to be cited. Presently, the following information and communication technologies are in use:

i) Internet and e-mail

ii) Audio-visual equipment (Overhead projectors, multi-media kits; slides, cameras, television sets, video-cassette recorders, video projectors, Fax-machines etc.)

iii) Closed-circuit television and video conferencing

iv) Use of computers and DeskTop Publishing

Pakistan entered the computer era in 1960 when PIA acquired an IBM mainframe computer. In 1971, the Pakistan Computer Bureau (PCB) was established to cater for the needs of computer education and training in the country. Over the years, in addition to organizing computer awareness and training programmes for different categories of government functionaries, the bureau provided advisory and consultancy services for computerization of federal and provincial ministries and public sector organizations. The PCB also organizes National Computer Conferences from time to time and is publishing two computer-journals titled 'Computer Review' and 'Informatics Bulletin."

Presently, all vendors/suppliers are assembling micro-computers and the exact number of PC's in the country is difficult to assess. According to a recent survey by PCB, there are 116 main frames, and 1508 minicomputers installed in the country in the public and private sectors. 168 organizations in the public sector, and about 300 organizations in the private sector are making use of mainframe and mini-computer systems.

Computer Education at Secondary and Higher Secondary Levels

The New Education Policy of 1992 emphasized for the first time the initiation of computer education programmes in schools and colleges. Accordingly, computer studies as a subject were implemented at various levels of education in a limited number of schools in the public sector.

Computer awareness courses	Grade I to V
Computer literacy courses	Grade VI to VIII
Computer studies as an optional subject	Grade IX to X
Computer Science as an optional subject	Grade XI to XIV

7. Planning Commission, Govt of Pakistan, (1987) "Report of the Working Group on Secondary Education", for Seventh Five Year Plan (1988-93) and Perspective Plan (1988-2003)" Islamabad, 1987, pp.38-57. pp. 71-72.

8. Edited by Jon Lauglo, Kevin Lillis: *Vocationals Education*, Pargamon Press, Oxford, 1988, pp. 24-26.

9. Eblers, Henry & Lec. C. Gordon; "*Curtail Issues in Education*" Holt Rinehalt and Winston, New York 1965. pp.

10. B.R. Satija; Adult Education: "*Trends in Education*" Anmol Publications Pvt. Ltd., New Dehli, 1996, pp.41-47.

11. B.R Satija: *Population Education, Trends in Education*, Anmol Publications Pvt. Limited, New Delhi, 1996, pp.335-354.

12. Romathe Mani; *Pop-Problems and Education, Education in the International Context*, 1991, pp.47-54.

13. B.R. Satija; *Micro-Teaching, Trends in Education*, Anmol Publication Pvt. Limited, New Dehli, 1996, pp. 145-160.

14. Brig. Dr. Allah Bakhsh Malik; *Micro-Teaching, Trends in Educational Through*, 1991, pp. 75-80.

15. Academy of Educational Planning and Manage-ment (Ministry of Education); Economic Survey 1997-98, p. 120.

16. Planning and Development Division, Govt. of Pakistan: *Economic Survey, 1997-98*, p. 121.

17. Louis Rubin; *Sexism in the Curriculum*, Curriculum Handbook Allyn and Bacon, Inc., Boston, London, 1977, pp. 251-252.

18. B. R. Satija; *Value Education Trends in Education*, Anmol Publications, Pvt. Limited, New Delhi, 1996, pp. 394-427.

19. Dr. Lalit Kishore; *Value Oriented Education*, World Ever-Views Doaba House, Nai Sarak, Delhi, 1990, pp. 61-64.

20. Marajuddin Bhati; *Teacher Education for Effective Use of New Information Media in Pakistan Schools*, UNESCO-APIED Centre, 1997 Report, 1997, pp. 141-157.

♦♦♦♦

Some of the more notable projects launched by the Federal Ministry of Education in computer education are the following:

a) Computer Literacy in Pakistan Schools (CLIPS) for Grades VI-VIII.
b) Introduction of Computer Studies as a subject for Grade IX & X,
c) Prime Minister's Computer Literacy Programme and
d) Computer Aided Instruction (CAI).

Reading:

Marajuddin Bhati	*Teacher Education for Effective Use of New Information Media in Pakistani Schools*. UNESCO-APIED Centre. 1997 Report	pp. 141-157.

Electronic Media in Education

New knowledge is changing so fast that rapid transfer of new scientific developments and technologies to the students through the textbooks alone is becoming increasingly difficult. The wider availability and cheaper cost of electronic technologies has made it possible to disseminate the new knowledge rapidly through the electronic media.

9.13. Self-Assessment Questions

1. Critically analyse the problem of medium of instruction. How can you solve it at secondary level.

2. While keeping the facilities and constraints in view. How can you increase literacy rate within shortest period of time?

9.14 References

1. Louis D. Hayes; *The Crises of Education in Pakistan*, 1987, pp. 1-3.

2. Prof. (Mrs.) Naseem Jaffar Quddus; *Problems of Education in Pakistan*, Royal Book Co., Karachi, Pakistan, 1990, pp.184-186.

3. Professor (Mrs.) Nasreen Jafar Quddus; *Problems of Education in Pakistan*, 1990, pp.228–230.

4. Commission on National Education; *Report 1959*, p. 13.

5. Ijaz Nabi Muslim; Introduction, Ijaz Nabi edition "*The Quality of Life*", November, 11, 1986, pp.

6. S.H. Raja; *Development of Scientific Resoning in Primary and Early Secondary School Pupils* – Ph.D thesis, University of Glasgow, U.K – 1992, pp. 13-15.