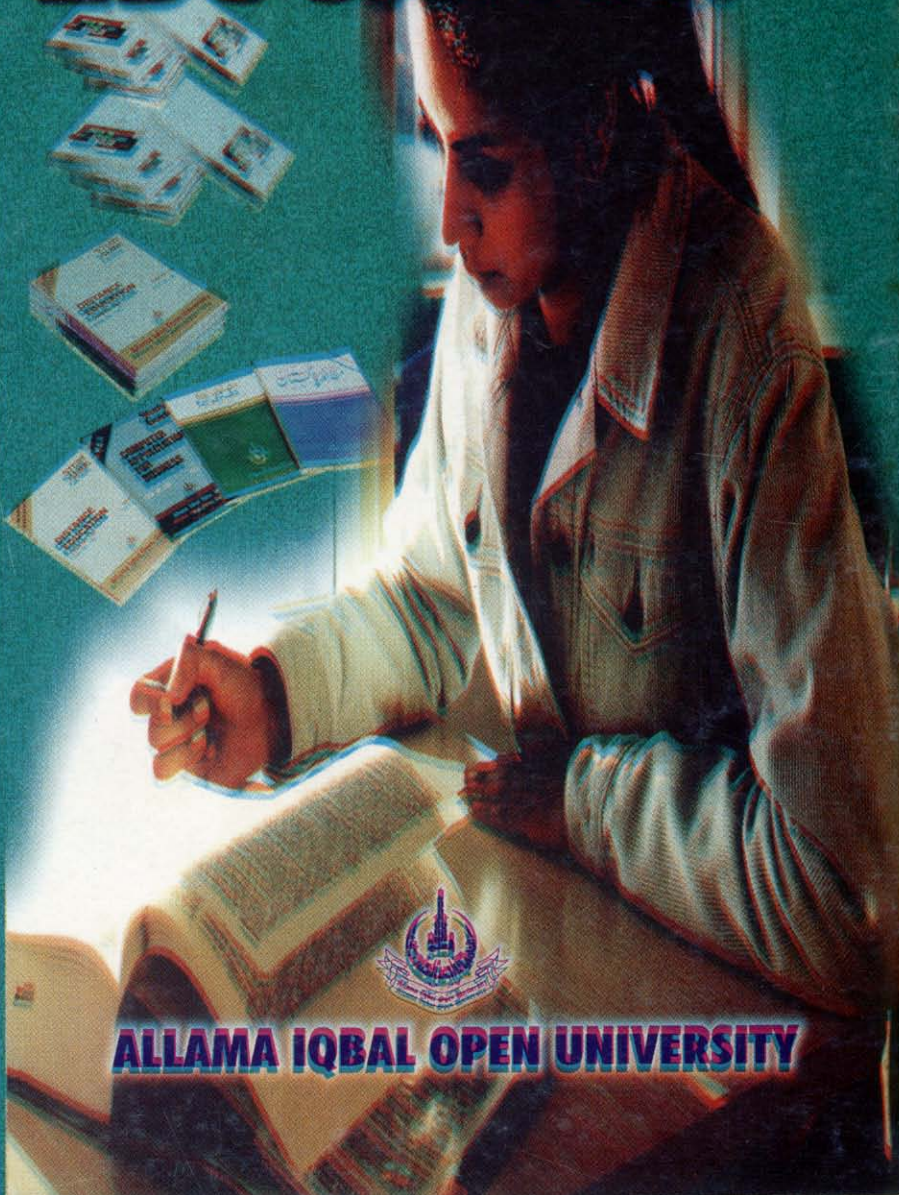


# PAKISTAN JOURNAL OF DISTANCE EDUCATION



**ALLAMA IQBAL OPEN UNIVERSITY**

# **PAKISTAN JOURNAL OF DISTANCE EDUCATION**

**1997**

**Volume-XVI Issue-I & II**



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## TO THE READER

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With deep sense of sorrow and grief we announce that the Founding Editor of PJDE, Dr. Ahmed Noor Khan expired in December 1997. He was a noted educationist, a distinguished scholar and a researcher of repute. In his death the AIOU has lost a sincere devotee to distance education. The services rendered by Dr. Noor for this journal would go a long way in the history of this institution.

Editorial Board

# PAKISTAN JOURNAL OF DISTANCE EDUCATION

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## EDITORIAL

### IMPARTING EDUCATION TO YOUNG ONES

Noted poet William Wordsworth had made no mistake while declaring that *Child is the father of man*. Undoubtedly, the child of today is the citizen of tomorrow. The future of the nation is carved out not by aged ones but by tiny tot. He is the moulder of the coming era. It is he who creates the destiny of dribblet and dismayed dwellers of the land. There have been great scholars and statesmen, poets and philosophers, scientists and teachers whose positive and sound activities in childhood let them grow into the men of dignity, rank and reputation.

This very vital and valued aspect of young ones had inspired Dryden to declare:

*Men are but children of a longer growth;  
Our appetites are apt to change as theirs,  
And full as craving too, and full as vain.*

It is this concept which had been visualised by Islam around fourteen hundred years ago:

*Every child has a right to be maintained properly by his parents. Children have to be treated kindly, apart from the fulfilment of the material needs and a decent treatment. Children deserve to be well-trained and fully educated. If parents, for some reasons, are unable to discharge their obligations towards their tiny tots, then it becomes the whole and sole responsibility of the state or community to fulfil these obligations at government expenses.*

It is an irony of fate that no solid and systematic steps were taken to shape the foregoing directives into a factual frame. The result is that even after a lapse of about 50 years, we in Pakistan don't have abundant facilities in the field of children's education. Education, the birth right of every individual, is beyond the reach of our poor people. A large proportion of the populace is still deprived of the glorious rays of learning. And even a greater number of children are yet lingering in the gloomy lane of illiteracy about whom Quaid-i-Azam Muhammad Ali Jinnah, the Founder of Pakistan, had said:



*There is no doubt that the future of our state will and must greatly depend upon the type of education and the way in which we bring up our children as the future servants of Pakistan.*

Frankly speaking, the main reason of this pathetic scenario and disappointing *dead-stop* in the way of children's education is none but indigence. Due to family's unbounded deprivation, the teenagers are forced to be reared in a work-house and apprenticed to brutal masters. All over the world, such type of working children are considered as Charles Dicken's *Oliver Twist* and painted in a negative sense, i.e. criminal, thief, addicts, looters, etc. etc.

While applying this so-called philosophy on poverty- stricken children, the intellects of the civilized society forget to ponder over the very fact which Dr. Rukhsana Masood has highlighted in her thoughtprovoking article i.e. *family size*. It is entirely the bulk of babies which becomes burden on the poor parents and eventually they are compelled to send these tiny-tots to auto-workshops and other such places instead of schools. To overcome this menace, family planning has to be adopted voluntarily so as to offer them good opportunities of having sound health and better education, at least in *Basic Education*. One article of PJE signifies this very subject. Also a review on children's dictionary elaborates the importance of imparting education to young ones.

**Dr. Mahmudur Rahman**  
**Editor**

# Basic Education in Pakistan A Brief Summary

By

Dr. Mahmudur Rahman\*

## INTRODUCTION

This very fact cannot be denied that education is the only foundations of progress and prosperity. All advanced countries have, first of all, developed their educational status since in the sphere of life learning and knowledge play a vital role. It is firmly beleived that on account of its scarcity, no nation can be expected to keep pace with the process of development in science and technologies. Resultantly it is destined to decay and couldn't survive in the long run.

This vital and valued aspect of education has highly been considered in our religion, Islam. The first verse revealed on our Holy Prophet (PBUH) was about "Reading". Every Muslim is bound to read and understand the Holy Book---Quran, without which he cannot be able to follow the teachings of Islam in appropriate way. Allah the most Merciful has given the mankind a precious thing---PEN! God has not only taught through it, but He orders to write down the personal accounts. Without education how we Muslim can perform these Divine Directives.

It must be elaborated here that the Muslim women are also entitled to as much education as men. In respect of acquiring knowledge, Prophet Muhammad (PBUH) did not distinguish between male and female. As such, he had enhanced her status which hitherto was ignored by all the religions of the world.

Ironically the picture looks much gloomy in Islamic Republic of Pakistan. The country is faced with the serious and alarming problem of low literacy. It is an irony of fate that the proportion of illiterates in the total population of Pakistan is too high. Amidst female genre, this ratio looks much low and even disheartening.

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\* On special request of UNICEF (Pakistan), this report was prepared for onward transmission to OIC.

Broadly speaking, this is more less than one-third of the total male literates. Such disparity is more prominent in rural areas of Balochistan, NWFP, Punjab and Sindh.

One drawback in our education is a big drop-out of students at primary level. This trend seems to be most conspicuous in large number in the first grade.

It is gratifying to note that some devotees of Islam and NGOs have come forward with the aim of eliminating the scar of illiteracy. With limited resources but unbounded zeal, they are performing a noble task which by all means deserves to be appreciated and even funded by Organisation of Islamic Conference (OIC).

Here we are submitting a brief report of activities performed through various projects to develop education in the provinces of Pakistan.

## BASIC EDUCATION IN BALOCHISTAN

It was during the last decade of 7th century (A.D) that a noted Arab traveller and geographer, Ibn Haukal visited the valley of Balochistan and had left a brilliant account of conditions prevailing in the said province. In his world-fame Book of Insti-tutions and Countries, he writes that before the invasion of Muhammad Ibn Qasim on Sindh in 712 A.D., Arabs had already arrived in this region. Their colonies existed on Makran coasts which had even large Friday mosques. During Haukal's visit, the ruler of the area was an Arab Muslim.

Thus, the credit goes to the people of Balochistan for embracing Islam and hoisting its flag much before the arrival of Ibn Qasim. As such, this province holds an important place in the history of Islamic countries. Apart from this, if we peep into the oldest documents of the Subcontinent, it would be revealed that Balochistan has its roots in the remote past. About 3000 B.C, amidst the rugged wide-spread valleys and foot-hills of this province, small village communities developed and began to take the first hesitant steps towards civilization. Here we find a more continuous story of human activity.

It was here that the most important sea route and the land route existed. They directly linked the heart of Pakistan with Arabia, Iran, Afghanistan and Central Asia. Laden with commercial commodities, carvans of these countries used to pass through the sea port of Gowadar and Makran, and mountainous Bolan Pass.

The first followers of Prophet Muhammad (PBUH), who set foot on the soil of Balochistan, were traders and preachers from the coastland of Arabia and Persian Gulf. Thus, Islam entered into this valley to ventilate the fresh air of New Religion. The impact of Islam on this area was deep and far-reaching. It introduced not only a new Faith, but a new civilization, a new way of life and new code of ethics.

This was the Islamic background which prompted the people of Balochistan to make their province affiliated with Pakistan. The founder of Pakistan, Quaid-i-Azam Muhammad Ali Jinnah always appreciated their struggle for freedom. In his speech, delivered on 15th June, 1948, he said:

"Balochistan is the land of brave independent people... I am specially interested in Balochistan ... I want to see it play as full a part in the affairs of Pakistan as any other province ..."

Ironically this largest province of Pakistan couldn't play its role in the field of education as it ought to be. It is because of this that literacy situation in the area is lagging far behind than other provinces. The pathetic scenario is that the literacy rate for female is 4.4% which is less than 2% in rural areas. Many factors seem to be solid reasons for this prevailing low literacy. These may be counted as:

- 1) Dispersed population
- 2) Distance between villages
- 3) Lack of communications
- 4) Socio-cultural values
- 5) Early marriages
- 6) Scarcity of schools
- 7) Non-availability of trained women teachers

Balochistan has a topography of widespread high mountain ranges, vast, arid, rugged, sunbaked stretch of land and the longest coastal belt of the country. These natural demography has compelled the population to be sparse and scattered. A part of the scanty population is also migratory. Furthermore, the province is divided into numerous towns and villages separated by long, difficult and enormous distances. This factor presents innumerable problems in imparting education to scattered students.

Due to great empty spaces, the formidable mountain ranges, inland deserts and arid zones, basic infrastructure facilities such as roads, railway lines, bridges, etc

could hardly be provided, thus making the communication a menace. Under such grim situations, spreading of education becomes a bottleneck in Balochistan.

The socio-cultural values in the tribal system are traditional ones which determinately discourage the womenfolk to get education. Moreover, the prevailing practice of early marriage in tribal specially in rural areas impede the promotion of their education.

Since parents are unaware of the significance of education, they don't need to demand opening of schools for their girls in their respective localities. Thus lack of schooling facilities pose a threat in imparting education. Even there are not training facilities for female teachers, resulting acute shortage of trained women teachers. These factors contributed a lot to the low rate of female education in Balochistan. For such a province of Pakistan, which for the first time hoisted the flag of Islam on its soil, women's and girls' inaccessibility to education looks amazing.

Yet, it is gratifying to note that new approaches and strategies to improve the situation and enhance female literacy rate have been undertaken by local societies, indigineous communities, NGOs, foreign Agencies and even by the provincial government. It may be recalled that in view of the seriousness of situation, Balochistan's government has increased its input to the primary education. Here we have to introduce some vital projects and their achievements.

## 1- COMMUNITY SUPPORT PROGRAMME (CSP)

Started by a local society, it is entirely a Non-Governmental Organisation. The long term goal of this 3-year-duration project is to improve standard of living of rural communities through their institutional development and by providing a sustainable environment for education. CSP effectively monitors and provides sufficient support to girls schools in rural and far flung areas, and thus ensures quality of education.

CSP also works as liaison organ between parents of girl students and education departments. Through its endeavour, both work in partnership and have become effective source for ensuring quality school in their respective areas.

## 2- VILLAGE EDUCATION CENTRES (VECs)

As indicated in the preliminary pages, Balochistan mainly consists of small type of villages which are scattered throughout the largest province of Pakistan.

Under such circumstances, unique steps have been taken by local communities. In all small and thinly populated villages, they have established Village Education Committees (VECs). They are made up of parents who have become interested in development of their girls' education. As a result, now they want to ensure good education programme in their village school. This partnership between communities and other educational sources have been frequently strengthened.

With the cooperation of communities, the SCSP had established in various localities over 116 VECs having an enrolment of 5834 students. It is interesting to note that in 82 villages, women have come forward to form a support organisation. It looks indeed a good omen and needs further strengthening.

The said society is active in spreading education throughout the neglected areas of Balochistan. Through active participation of parents and education department, further 80 schools have to be established.

Through these community schools, a number of young girls will become literate and in future well-informed mothers. Thus, these educated female would by all means be able to properly manage house-hold, raise healthy children and in the long run contribute to the economy of the family. Thus it becomes evident that womenfolk would be the main beneficiaries with a solid sense of their ability and worthiness hitherto ignored at all.

### 3- MOBILE FEMALE TEACHERS TRAINING UNIT (MFTTU)

This innovative project was started in 1990 with the financial assistance of USAID and Unicef. It was meant for those girls who were Matric or Middle and willing to teach in their own community. Undoubtedly the project helped in developing an interest and motivatives for girls education in rural and far flung areas. It has tapped the community support for girls education. Since the appointment of female trained teachers was done in their own villages, the parents were motivated to send their girls for training. It was through MFTTU that negative attitude of male members was turned towards female education and the demand for girls education increased. Through this process 121 female teachers received training and thus have permanent income.

### 4- THE COMMUNITY SUPPORT PROCESS (CSP)

This new approach was started in 1993 with main aim to create awareness and parents support in the promotion, organization, planning, implementation and

monitoring of the community supported girls schools in the scatteral villages of Balochistan. Through splended activities undertaken under the banner of CSP, female participation and retention in basic education improved; access of women and adolescent girls to knowledge increased; skills suiting their domestic needs and even environment were introduced and mainstreaming of children with selected disabilities were supported. Moreover, with community - government partnership, schools in rural and far flung areas were established. Priorities have been given to such areas where there have been no girls' primary school before.

Through CSP and with the cooperation of Government, so far about 300 girls primary schools have been opened, and wherein 13992 students were enrolled.

## 5- HOME SCHOOLS

The concept of home school is unique in a sense that the private sector having limited resources, goes ahead with imparting education in hut-type-h ouses. These home schools have been providing basic formal education upto grade five through a non-fomal approach to the dis-advantaged girls and boys of low-income group in the urban areas. There the ages are not restricted. Parents bear all the expenses, even payment to the teacher. The teaching/learning materials for the students/teachers and other school supplies are provided by Unicef.

During 1994/95, 14 home schools were opened in the under privileged area of capital city of Balochistan. It is interesting to note that these are one - teacher schools, but in all 16 teachers are providing instruction to around 700 girls and 300 boys. These children were not going to schools earlier.

It is proposed that during 1996-98, about 30 such schools will be opened in urban slums of Quetta where government schools are not fullfilling the need of the community.

## 6- URBAN FELLOWSHIP PROGRAMME SCHOOLS

Under this programme, 12 schools have been established in all the ten areas of capital city of Balochistan. These institution are being monitored closely. More then 1300 girls and 30 boys are studying in these schools. About 53 female teachers are instructing.

## 7- RURAL FELLOWSHIP PROGRAMME SCHOOLS

This programme appears to be much effective and of far-reaching concrete results. Under RFPS, 30 schools are operational in various areas of Balochistan, and being sponsored by Village Education Committees (VEC). About 55 female/male teachers are imparting education to around 1600 girls and 50 boys. Refresher teachers trainings were organized and workshops on school planning and management have been conducted. For all these steps, local resources have been utilized \_\_\_\_\_ a rare example.

## 8- TEXTBOOK REFORM PROJECT

According to some studies carried out, one of the factor responsible for deteriorating state of education in Balochistan is the poor quality of textbooks and scarcity of instructional materials for primary schools. To overcome the menace, this project was started with the assistance of USAID/ UNICEF. In 1991, a plan was developed and specific achievements were made through the proper financial help of Unicef. Inter-alia all instruction materials for primary education were revised and new-ones prepared accordingly.

Through the implementation of the above mentioned projects, development in education has swiftly been made. Enrollment of girls in primary education has more than doubled during five years. Most significant has been the establishment of village education committees which encourage girls education. As awareness of the value of female literacy increases on, women's committies are also beginning to be established in various villages of the valley. These excellent examples of well-managed changes and progress in the field of education deserves to be acknowledged by all and sundry.

## BASIC EDUCATION IN NWFP

Geographically the North-West Frontier Province (NWFP) is called as the Northern High Mountainous Region. Stretching in the north from east to west are a series of high mountain ranges which separate Pakistan from Afghanistan, China and Russia. A great mountaineer Eric Shipton has written in his account:

"To describe this region is to indulge in superlatives, for everywhere you look are the highest, the longest and the largest mountains, glaciers and rivers in the world."



This land of barren mountain occupies an eminent place in the annal of area. It lies on the way from central and West Asia to the South Asian Sub-continent, through various routes, specially the world-famous Khyber Pass. Due to geographical and historical importance, this mountainous gateway has had been watching for centuries, numerous kings, generals and preachers passing through it. Even Alexander the Great crossed it to conquer the country in 327 B.C.

It was after nearly three centuries of Arab invasion of Sindh that the second phase of the conquest of the Subcontinent began under the Turks. They became the spearhead of Islamic expansion towards Pakistan. Later, various Muslim rulers brought this region under their control.

The great generals, kings and saints not only brought with them, religion and faith, but also the treasures of Islamic values, cultural traditions and educational concept. Their impact upon the lives of the Frontier people was far-reaching. As a result of the example of religious tolerance and humanitarian broadmindedness set by these newly commers, there were important conversions, including a number of tribal chieftains. The Muslims established mosques and Madrasas which served as centres of educational and missionary activity. In the course of time, Islam became the dominant religion of NWFP.

It was this Islamic background of NWFP that during Referendum in late 1940s, the verdict and mandate of the people went in favour of Pakistan. They heartfully supported the movement for achievements of an Islamic State.

The founder of Pakistan, Quaid-i-Azam Mohammad Ali Jinnah always looked keen and curious to spread vast education amidst the populaee of this province. While replying to the address presented by the student community of NWFP, the Quaid Said:

- \* Let me tell you that nothing is nearer to my heart than to have a great centre of culture and learning in a place like Peshawar\_\_\_ a place from where the rays of knowledge and culture can spread throughout the Middle East and Central Asia.
- \* I want to impress upon those who are responsi ble for the education of our young boys that they must concentrate and direct all energies in this direction.

While describing the Frontier Policy of Pakistan, the Quaid declared:

"It will certainly be any constant solicitude and indeed that of my Government to try to help you to educate your children."

Ironically, the education policy, laid down by our great leader, was not given a factual shape after his demise. This province which the Quaid loved so whole heartedly, remained under the grip of grim illiteracy. Those women of the Frontier who took active part against the atrocity of British ruler and to whom the Father of Nation paid tribute before partition in such a way:

"I cannot but express my appreciation of the sufferings and sacrifices made by all the classes of Musalmans and particularly the great part the women of the Frontier played in the fight for our civil liberties."

(Broadcast on June 3, 1947 from All-India Radio Delhi.)

lagged behind in acquiring education because of the following hindrances:

- i) Ranges of hills----- the great hindrances.
- ii) Slum houses/dilapidated buildings.
- iii) Non-availability of building for schools.
- iv) Non-availability of local teachers.
- v) Non-availability of books.
- vi) Non-availability of teaching materials.
- vii) Lack of teachers training.
- viii) Lack of motivation in girls for studies.

According to survey conducted by Unicef, it revealed that in most localities, there does not exist govt. primary school for girls. Because of this, primary education for female child is extremely poor. As a result, majority of those without basic education in NWFP are none but girls. It undoubtedly perpetuates their traditional, social and economic disadvantage.

To achieve the goal set for Universal Primary Education (UPE) by 2002, it was considered that formal education is not possible due to a huge backlog and continuous increase in the drop-outs which is enhancing the number of non-literates. Access to the most disadvantaged and isolated pockets of population can best be through the flexible system of Non-Formal Basic Education (NFE).

As such, Unicef (Pakistan) has chalked out a comprehensive plan to address the issues of UPE, with the ultimate cooperation of various communities. Specific objectives are as follows:

1. To raise people's awareness for imparting basic education to girls.
2. To persuade the communities for participation in promotion of basic education for female child.
3. To improve female participation and retention rates at primary basic education level.
4. To chalk out a course of action and create opportunities for out-of-school children, specially girls to receive basic primary education.

To solve all these problems, Unicef sought the help of NGOs as well as various communities of the province. They came forward and motivated for education of females in very conservative areas. Moreover, Village Education Committees (VECs) were established with the help of nobility of the area as well as the parents of female child. It is undoubtedly the first step on grounds of expediency and even strategic grounds for enlisting parents' interest and securing their commitment for their daughter education.

It is interesting to note that through enormous efforts, consciousness has been arisen amidst the populace of this province through establishments of VECs. Its meeting is held on a monthly basis. It discusses the progress of the school, attempts to solve problems and collects funds for running the institution. Normally parents contribute Rs.5/= per student to the school fund. Those who are poor, and such number is abundant, are exempted, but cordially encouraged to enrol their girls in the school.

It is a good omen that in NWFP, which remained totally backward in the field of basic education, the involvement of fathers, mothers and villagers is establishing, running and maintaining the community schools under the umbrella of VECs in a structured and organised ways. It seems to be well accepted and contributes a lot to the satisfactory functioning of such community schools.

Now, the light of knowledge which emerged about 1417 years before on the Mountain of Hira through the Holy Verse Iqra, is spreading steadily throughout NWFP. For this, Unicef deserves congratulations and even encouragement.

## BASIC EDUCATION IN PUNJAB

The fertile and ever green Punjab since time immemorial has been the granary for the rest of the country. Its ancient history had seen a series of invasions. As per record, the first conqueror of this province is reputed to have been King Osiris of Egypt. Since then, the invaders continued their campaign against this greatest financial centre of the Subcontinent.

Earlier, the establishment of Muslim rule in Sindh had prepared the way for future propagation of Islam in its adjoining region-Punjab. The Muslim conqueror Qasim did not exercise any pressure upon the population to accept Islam. Rather, the local people were so impressed with the justice and leniency of the Muslims that they willingly accepted their Faith. Then, the successive Muslim dynasties had left their mark on the annals of this area. As a result, Punjab became a strong hold of Islam.

During the course, Punjab attracted Arab travellers, poets, writers and missionaries. Under the aegis of Sufis, who were the source of Islamisation, the entire region of Punjab became the centre of Muslim Faith. Lahore which remained the capital of this area, played a prominent role in spreading knowledge and wisdom. Persian became the language of culture of Muslim elite. Two eminent persons associated with the Ghaznavid Lahore were poet Masud Sad Salman who wrote in Arabic and Persian, and the famous Hazrat Ali Hujwari (Data Gunj Bukhsh), the author of *Kashf-ul-Mahjoob*, one of the earliest works on *Sufism*.

It was, however, during the reign of the Great Mughal that Punjab had its Golden Age. Highly impressive forts, splendid palaces, beautiful mosques and educational institutions appeared throughout the length and breadth of the land.

The Islamic impact on the social and religious life of the province is outstanding. Education, the mainstream of Muslim concept, started to spread all over the region. A number of Madresas were built to impart education in subjects ranging from religion to philosophy, logic and literature. It was because of enormous efforts of the Muslim rulers that Punjab emerged as the centre of knowledge and learning. A great number of masses then knew how to read and write.

It was during the thirties of the current century that the political life of the people of Punjab entered a new phase. The name of the poet-philosopher Allama Iqbal deserves special mention in this connection. His contribution to the growth of Muslim opinion, which ultimately led the creation of Islamic Republic of Paki-

stan, was enormous. Born in Punjab, this Poet of the East awakened the people through his thoughtprovoking poetry, generally based on Islamic ideology.

It was in 1930 that Iqbal made his paramount and ever lasting contribution to Muslim politics. His ultimate goal was to see the Punjab, NWFP, Sindh and Balochistan amalgamated into a single Islamic state. Thus he gave the Muslims a new vision and an intellectual basis for their faith.

Undoubtedly, Iqbal's ideal was the establishment of a state based on Islamic values. It was on this grounding that in March 1940, an august meeting of all the Muslim leaders of India was held in Lahore, the capital city of the Punjab. It was here that the Lahore Resolution (later to be known as Pakistan Resolution) was passed and, for the first time, the demand for Pakistan was vehemently made. Within the following seven years, Punjab played a prominent role in the creation of Pakistan.

It was just after achieving independence that the Quaid-i-Azam made it a point in his historical message to All-Pakistan Educational Conference:

"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 any real, speedy and substantial progress, we must earnestly tackle this question."

Ironically, this significant question was not tackled earnestly as desired by the Father of the Nation. During last fifty years, Pakistan has a dismal track record of literacy and basic education. Women's literacy rate is as low as 6% in the rural areas of the province. No concrete steps have been taken so far to solve the problem of illiteracy prevailing throughout Punjab. The decreasing number of dropouts of children, specially girls at primary level seems to be astonishing and even alarming.

At this disappointing stage, Unicef came forward to erase the scar of illiteracy. This international organisation has fully realised that Pakistan is also a signatory of the Education for All (EFA) declaration goals and has committed itself towards the achievement of Universal Primary Education (UPE) and 80% primary completion rate by the year 2000 with a particular focus on reduction of gender disparities. As such, Unicef entered into august agreements with those NGOs having special interest in child and women welfare. A brief description of such organisations are given hereunder:

## MALIK MAULA BAKHSH MEMORIAL TRUST (MMBMT)

It is entirely a non-governmental organisation (NGO), established in 1990 to work explicitly for the purpose of focusing on basic education. Relating to private sector, it fully recognises that for achieving Universal Primary Education (UPE), different structures of education needs have to be evolved which are flexible to suit the different requirements of girls and children in various parts of the province, and meaningful and interesting enough to make them see the relevance of learning in their local communities. The splendid objective of MMBMT are as follows:

1. To increase female primary participation rate in rural and low income urban areas through non-formal primary education for girls at the primary level.
2. To improve the education quality of the District Resource Centre by extending management and teacher trainings and appropriate learning material and equipment.
3. To increase community participation by creating Village Education Committees (VECs).

With the collaboration of Unicef, the MMBMT adopted the policy of Non-Formal Basic Education (NFBF) to promote and strengthen overall endeavour to spread education in various parts of Punjab. The ongoing activities in 60 schools since 1992, will continue to operate in collaboration with TVO. Under the umbrella of this project, 60 new schools for girl students were added, thus making a total of 120.

Moreover, MMBMT has been strengthening the educational quality through well-developed in-service training programmes. In its supervision, community organizers are working in villages to provide motivational support and assistances to VECs.

The most heartening feature of the project is that Village Education Committee is comprised of women and mothers. Its chairperson is a woman desirous of taking some lead role in her own community.

Another characteristic is bi-monthly meeting where teachers are given an orientation to new methods and teaching aids to enable them to address their classroom teaching practice more effectively.

Through such activities, Malik Maula Bakhsh Memorial Trust is doing a lot in illuminating the lamp of learning on primary level. The outstanding role of Agencies, specifically that of Unicef is highly commendable.

## BUNYAD LITERACY COMMUNITY COUNCIL

Pakistan's female population has the lowest rates in primary education as compared to the male population in Punjab. Thus it has become essential to focus primarily on the female population for provision of basic education. A number of specific socio-cultural and economic factors hinder the access of females to primary education. Therefore, there is a need to find alternative channels relevant to the needs and values of the local communities, where the formal system and its approaches could not deliver.

Keeping this very need in view, Bunyad Literacy Community Council (BLCC), an NGO in nature, was established in 1993, explicitly for the purpose of focussing on basic education. The main and even extraordinary feature of BLCC is that its Executive Director is a woman. Having the motto Literacy is the first step to development, the major aims of this NGO are as follows:

1. To enhance the female literacy ratio particularly amongst the 7 to 12 year-age-bracket in low income areas of Punjab.
2. To assist CBOs in the field of literacy and especially for girls and women.
3. To train teachers.
4. To strengthen village committees for supporting literacy drive.
5. To increase female participation rate and to decrease drop-out at primary level.
6. To provide quality education for 12,000 girls.

By 1995, the number of centres increased to 500 enrolling 15,00 girls. Out of these 500 centres, 100 have completed their primary cycle of 2-1/2 years in December 1995, while the remaining 400 centres will complete the cycle in 1997

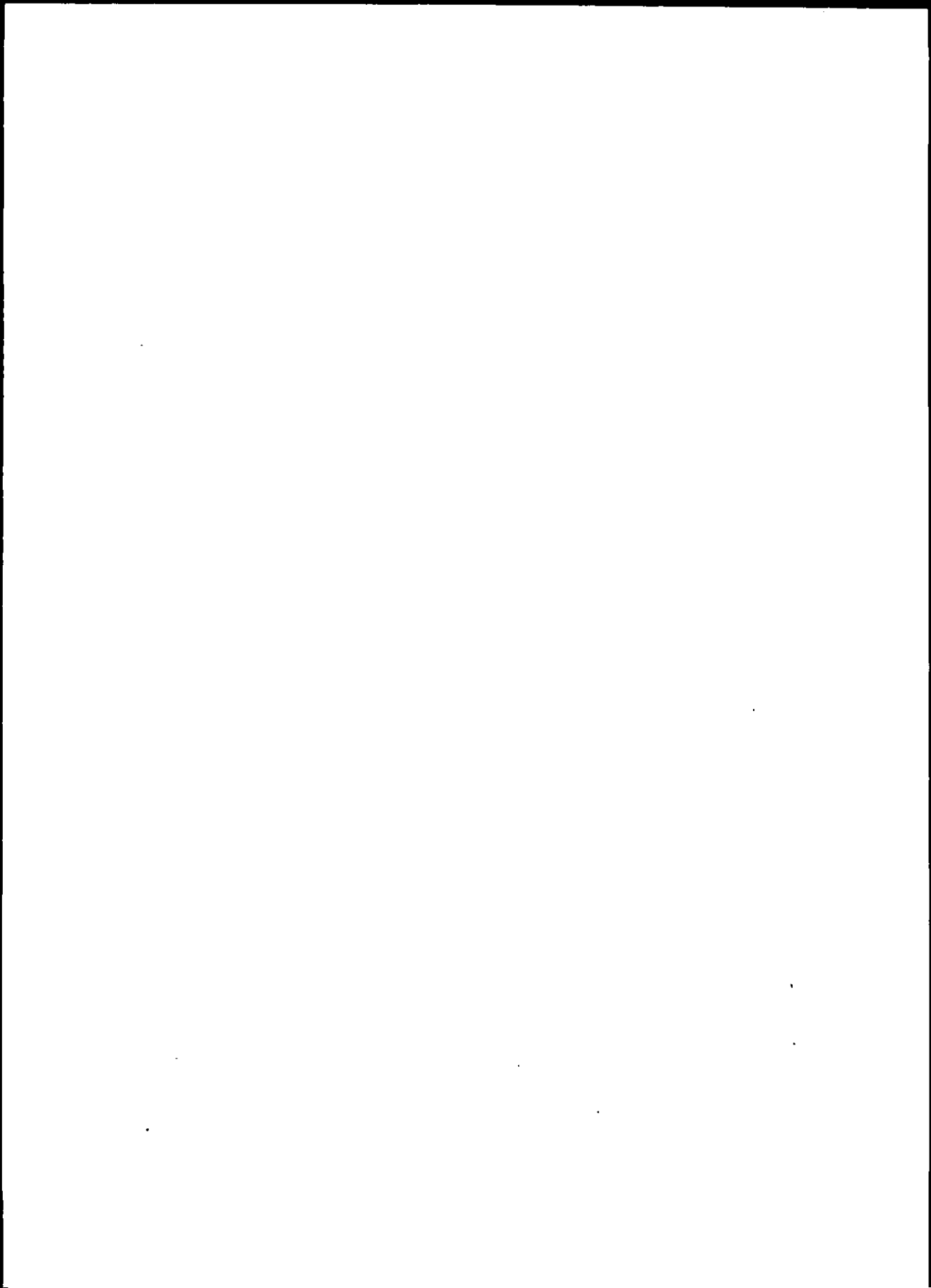
It is worthwhile to mention here that BLCC is properly designed for drop-out/illiterate girls living in rural areas of Punjab. Normally, these girls would never get the opportunity to attend schools because of oriented traditions, poverty, rigid timings, gender bias and non-availability of schools.

To sum up, the BLCC of Lahore has been continuing to work in close collaboration with Unicef to implement the prestigious programme of educating girls at primary level.

Thus, through the efforts of NGOs and with the funds, equipment and supplies provided by Agencies, the province of Punjab is going ahead towards the goal set by Education for all (EFA) and Universal Primary Education (UPA).

(To be continued)





# Benefits of On-line Instruction in Distance Education

By

J.S. Mirza\*

## 1. Introduction

The recent internet proliferation and its vast capability of dissemination of information is an immense inducement to exploit the means of new technology for spreading open and distance education. Many establishments across the globe, colleges, universities and industrial organisations are embracing the new technology for the sake of their clientele who would like to continue receiving new training and new knowledge to upgrade their education and skills. This new-age technology because of its vast resources can be accessed with ease from home and with which you can interact at will, whenever and for whatever time you want can advantage stupendously distance education student community, who have constraints in receiving education in traditional manner. The technology can also be quite beneficial for the corporations to improve technical skill of their employees, for the governments to popularise continuing education for adults who would like to upgrade their skills and thus produce developed human resource and bring more economic prosperity to nation.

All these benefits are not automatic. It requires resources, careful evaluation and discreet implementation and, above all, better management and proper monitoring of the system. In the pursuit of this new technology, some organisations may be jumping into internet bandwagon without making a prior study of the above-said factors.

## 2. Conventional Distance Education

Distance education definitely has lots of benefits to gain from on-line instruction. Until a few years ago, distance education solely relied on print mode and students learning supports would comprise at most the following:

- Regular F2F tutorials held at fixed places

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- Regular F2F surgeries held at fixed places
- Telephone tutoring
- Audio and video cassettes, and tv broadcasts
- Student self-study group

Each distance education establishment would offer facilities depending upon its resources and students traditional expectations or culture of the place. In East Asia e.g., Hong Kong, Singapore and Malaysia, etc. where the writer has spent 15 years of his career in education all the above services are liberally offered. There are places in Asia and elsewhere where remoteness of locations or limitation of resources put constraints on the provision of facilities of regular in class F2F tutorials and surgeries, and this deficiency is compensated for by other means e.g., a few scheduled or unscheduled private meetings of student and tutor, and contacts through telephone, letter or faxes.

Even though print-based distance education is achieving its goal in an adequate manner of imparting instruction, there is a severe lack of an important ingredient of education and that is inter-student and tutor-student interaction.

### **3. What is On-line Instruction?**

By current definition, *on-line instructions* are the ones that are delivered through internet or more specifically a computer-network or a network of networks and are commonly received on a computer monitor. You may exploit all the tools of Internet to your advantage, chief amongst them currently is world wide web. However, as the time passes by, on-line instructional technology will commonly include facilities of interactive TV, video phones, two-way desktop audio and video-conferencing etc. Broadly speaking, currently on-line educational technology means distributed stored knowledge otherwise called instruction which can be accessed synchronously or asynchronously by anyone on a network, and provision of interactivity between a learner and a live resourceful partner at other end i.e., a tutor or an experienced fellow-learner using networked computer technology. The in-class F2F tutorial support is definitely absent in on-line education. The benefits of on-line technology may not exceed in count than those of conventional distance education, but definitely they can far euphemism is networked-computer-mediated-learning, NCML.

#### 4. Benefits of On-line Instructions

Both the above pedagogical means, conventional distance education and on-line instructions, tend to achieve the same goal for students i.e., learning, but their level of effectiveness varies. There are apparent advantages of on-line education versus print-based one with in-class regular F2F pedagogy in various aspects. The chief among them are summed up as:

- Ease of access to knowledge
- Tapping of vast knowledge
- Enhanced interactivity: student-student and tutor-student
- Time and place of learning of student's own choice

In conventional print-based distance education, students mostly rely on the course material they receive from the institute. For further readings, trips to libraries and manual research for the reading material is essential. The amount of knowledge they access to is less for their efforts they put in search compared to on-line search and acquisition. Also in F2F pedagogy inter-student dialogues do not exist and tutor-student interactivity can be quite limited because of limited time of audience granted per student. Besides the above very apparent advantages that on-line education has compared to print-based distance education, there are potential benefits of great values that also entail:

##### *Sense of community belonging*

Students of distance education following conventional means of learning as given in section 2 are afflicted with a sense of isolation which hangs heavy on them. Small study groups, regular tutorial assemblies and telephone tutoring, if one has the blessings of them, can help alleviate, to some extent the feeling of aloofness; Yet these facilities cannot be capable to fully overcome this sense of isolation. In contrast to this rather disconcerting aloofness that distance education students suffer from, their counterparts i.e., campus-based students of conventional education on the other hand enjoy 5-day-a-week company of their fellow-students and tutor which can be academically and socially highly supportive in their learning activities. They have a strong sense of membership of a community.

One advantage of the on-line learning clearly has been to counteract the feeling of aloofness and replace it with a sense of belonging to a community which is well connected through burgeoning interactivity between student-student and student-tutor. Further the rampant expansion of on-line phenomenon and its recent

adoption by conventional educators for regular campus-based students and eulogy of this medium by well-developed countries has brought respect to this field which can be shared by distance learners.

### *Confidence building*

The sense of aloofness detracts from the confidence in student's competitiveness, while the sense of community-belonging inspires confidence in student's capability to achieve one's goals. Confidence building is a direct outcome of the sense of belonging. I would count it a separate entity even though it ensues rather automatically from communing. Therefore, on-line leaning through its vast connectivity and interactivity can forge sense of community-belonging which in turn paves the way for confidence-build-up.

### *Immediate instruction help*

In conventional distance learning, F2F-help and telephone tutoring is strictly scheduled. When students need help especially while studying at home, these help sources will not be immediately available. A repetitive situation of this type can easily discourage the students and contribute to drop-out rate. The on-line instruction with properly managed tutors' and inter-student assistance can bring much needed help fairly quickly. A key to success in making quick provision of help to needy students is a discreet management of tutor resources. If the help fails to arrive in proper manner and sooner than conventional means of distance education, on-line instruction may become white elephant and may be less useful than F2F education.

### *Participatory learning*

There is no doubt about it that participation of a learner in active discussion does contribute a lot in one's learning (Eskow S., Mclaughin J.). Unfortunately, students interactive participation level in the course of delivery of lessons in F2F mode is abysmal. The lack of participation in F2F mode on the part of students does not imply that they have imbibed lessons well. In actual fact, participation gets thwarted either because students have not prepared their lessons before coming to classes or because they are shy to speak out their queries. In on-line education, the first and last reasons don't come in the way of students to interact; the middle reason may still exist and prevent some students in participation. But by and large, on-line education can massively induce the participatory and collabora-

tive learning, because there are no time constraints, no class-shyness and there is a will to seek answers to your queries after you have read your lesson.

### *Time savings*

F2F class tutorials cause wastage of time in travel to and from the tutorial centre. In one estimate in a big city the total return journey time can easily be 2-hour. Therefore, a 2-hour tutorial would have his efficiency cut by 50% because of equally long journey time. If all the students in a tutorial class, say 30 of them, compete equally and get proportional attention from the tutor one gets mere 4 minutes of audience from tutor for ones personal queries. For the rest of the time i.e., 2 hour-4 minutes, each student has to put up with other students queries and their responses for which he may or may not interested. The net time one really gets good use out of F2F tutorial is a few minutes. In on-line learning one takes complete charge of ones time and can derive 100% efficiency out of it.

### *Help to disabled students*

F2F tutorial classes in conventional distance education require students to be physically present regularly and in accordance with planned schedule. This is not possible for students who are physically disabled e.g., wheel-chair bound students who can hardly leave home, hearing-impaired students who could not make much use of tutors speech, jailed students who cannot be let out of prison for classes and students who cannot attend because of some engagement at the tutorial time. The on-line education offers a big help to the above categories of students who can sit at home in front of their monitors and can participate and interact with the tutors and fellow-students.

### *Writing quality*

On-line participatory learning required a student to write his queries and responses on the keyboard as opposed to listening and speaking in conventional distance education. When writing, one has ample time to collect and organise ones thoughts and use appropriate wording to express them. The greater the level of his participation and the greater his desire to be sophisticated in his writing the greater are the chances for his becoming a good writer. In other words, through on-line education one can learn sophistication of expression of one's thought, eloquence and clarity of thoughts.

### *Freedom of Speech*

In F2F tutorial classes during discussion or discourse, one can have shyness and fear of antagonising and fear of causing resentment to other in expressing one's thoughts. In the comforting solitude of one's study room and uninterruptedness of your computing machine you intrepidity march on in endless expression of your thoughts. Imagine the course is on country politics, business ethics, human behaviour or morals and your views are revolutionary and confrontational. In F2F mode your courage may be stunted and in the flow of speech you may err, pass derogatory remarks but if you are on-line you can be daring yet discreet.

### *Learning of computer skills*

Today the learning of computer skills has become necessary for any nation that desires to join the club of developing or developed world. The use of computer technology is vastly proliferating in fields of manufacturing, communication, and education and it is desired that manpower be sufficiently exposed to use of computer facilities for a nation to keep abreast with developing world. The establishment of on-line education as a means of continuing education for adults will achieve the purpose of providing exposure to computing skills which in turn can benefit the whole nation in its economy.

### *Prevention of "lost in mail"*

In conventional print-based distance education the assignments are sent by mail and sometimes get lost. Also mail takes time to arrive. With on-line delivery, mail-loss and mailtime and consequential frustration can be prevented with substantial gains in time savings.

## **5. Conclusion**

On-line instruction have lots of benefit for distance education students, the chief among them is enhanced interaction both at inter-student and tutor-student level compared to what a student gets in F2F distance education. There is, however, a need to properly organise and continuously monitor this two-tier interaction for better results. It may also be necessary to have a system to persuade students to actively engage in the computer-mediated interaction, because there is a likelihood that in cultures where students mostly depend upon regular F2F instructor-led instructions, the students may feel detached and not participate in interaction. In cultures where distance education students put more reliance on traditional

pedagogic system i.e., intensive F2F tutoring such as in some parts of Asia, a sudden switch from F2F to solely on-line education most likely will cast adverse effect on students. It will be wise to have incremental introduction of on-line instruction while simultaneously decrement F2F component so that the students are gradually weaned away from their traditional reliance on tutor-fed pedagogy.

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# Library Information Promoting Services (LIPS)

By

Niaz Hussain\*

Gone are the days when library was considered as a "Store House" where books were merely issued and returned. Now, it has become an admitted fact that the libraries build the nations. This slogan has a firm footed position in a refined way. In spite of several definitions defined by the library experts in various reputable dictionaries/encyclopedias, let it be defined in simple words:

"A place where the educational and recreational material i.e. Print, Audio, Video microfilms is placed in definite order for dissemination is called Library".

From above definition it reveals that there are the following three main functions of a Library:

## Procurement, Arrangement and Dissemination (PAD)

### Procurement

All the material of library are acquired through purchase, donation and exchange programmes. It has been observed that the items acquired through purchase are almost upto the real demand and useful to the readers. Whereas, the material received through donation, is mostly do not appear according to the proper demand of the related library. In donation, there seems leniency. In some cases, the material not specified required for the readers but accepted in exceptional cases, obviously becomes burden on the library by technical process, storage, etc. Likewise, in exchange programme, one has to accept those materials that are received as the publications of parent organization. Whatever the case may be, the Librarian is required to be most selective in acquiring the material for library

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since the needs of the users may be met out through available collection. Every reader's demand must be given equal weightage without any priority or partiality.

## Arrangement

The entire collection should be arranged in a definite order so as to enhance the library services and provide the required material to its clientele. The collection is to be arranged through any classification scheme. In Pakistan, mostly the Dewey Decimal Classification Scheme is used, which meets the requirements of various types of libraries. Some of the libraries in Pakistan are using Library of Congress and Universal Decimal Classification Scheme.

## Dissemination

It is responsibility of the Librarian to provide services in the most convenient way to his/her readers according to their expectations. The information can be disseminated through bulletin, annual reports, library catalogues, literature surveys, library visits, film show, book exhibition, new book displays, content services of periodicals, etc. Dissemination of information is an essential aspect of information services.

Amidst the three functions mentioned above, if any of them is missed or ignored, the aims and objectives of the library cannot be achieved.

## Library Information

The information about library is meant for its users and should be promoted on priority basis. The concept of information services is the phenomenon of modern age. Information services are increasingly becoming vital for the progress of our society.

There are two aspects of information services. The first aspect is that the user approaches the Information Desk and makes request for information through a specific query. He/She gets an answer according to his/her quest and query. The other aspect is to keep the user well-informed by providing current awareness service. It is absolutely an important component of information services. It is a universal fact that the Librarian serves as intermediary between users and library material, but computerized library services, do not always require Librarians as intermediaries, rather they require Librarians to be instructors specially in self-teaching and practical areas. Because most users are relatively sophisticated when

it comes to computers and technology, it is the Librarian's job, as educator, to foster self-reliance among them.

The current scenario expects from the library that whatever the information is needed, should be on the LIPS of the Librarian. As stated previously, the information is the basic right of the reader. It is promoted on priority basis to achieve the goal of library. The efforts made for the proper promotion of informations, are recognised as services.

Following steps are suggested to provide best library services. The information can be promoted through them:

### 1- Reference-Services

According to S.R. Ranganathan (1966), "the reference-service is the supreme and ultimate function of the library". As Louis Shores (1954) says, "Reference is to library service what intelligence is to the military". In fact this is the hub of all library activities. All other activities, such as book selection, acquisitions, accessioning, classification, cataloguing are only means to this end. These activities make reference-service possible and more effective.

The reference-service differs from library to library. In a public library, there are different types of readers having different types of requirements. The main emphasis is to educate and guide the users and show them where to look for their required material or answer.

### 2- Orientation

All means are becoming acquainted with the physical aspects of the library and even they look aware of library services and materials. The informal tour by library staff members is traditional and very effective. Audio-visual methods that have been developed and used by any libraries for orientation purposes are popular. The slide/tape can be shown to individuals or to groups, depending upon the space. They can be used outside the library and be viewed many times if needed. Slide/tapes are relatively easy to update. Whatever method is used for this basic level of orientation, users should get a solid foundation in knowing the physical arrangement and services of libraries in the beginning of the library instruction programme.

### 3- Lecture

The most traditional way of presenting information is a good vehicle for conveying knowledge to the users.

### 4- Printed material

For library instruction the use of printed materials is very popular and useful. The instruction is systematic approach to teach the user as how to use the library profitably. Printed write-up pamphlets are distributed among the new users, through which they will become acquainted with the use of library.

### 5- How to use the Library Catalogue

The catalogue is called a key to the library collection. In order to make full use of the library, a user should know how to use the catalogue effectively. The Librarian is responsible to provide assistance in the use of catalogue.

### 6- How to use the Reference Books

Each reference book has its own arrangement of information, level of presentation and contents of information. That is why the user needs assistance to use the reference books.

### 7- Inter-library Loan

If any book is not available in the library, the Librarian has to refer the request to other library for borrowing it.

### 8- Reservation of Document

This service will also motivate the users to get benefit from the library services. In case any document has been loaned, some one needs it, he can get it reserved. When the required document is returned, the user is informed to get the reserved book issued accordingly.

## 9- Compilation of Bibliography

This service may be done on demand from any user or be kept ready in anticipation. It can greatly help in the use of library.

## 10- Paper-Clippings

Clippings from newspapers, magazines, pamphlets play an important role in the library services.

## 11- Vertical Files

Very important documents consisting on few pages, like pamphlets, prospectuses, reports, press-clippings are kept in Vertical Files.

## 12- Computer in the Libraries

Mini-computers in the 1970s and micro-computers in the 1980s have made it possible for even small libraries to benefit from computer technology. The earliest manifestation was the creation of bibliographic data-bases that could be accessed on-line and searching for lists of books and articles on various subjects through systems. The advent of computers made the entire manual services i.e. Acquisition, Cataloguing, Circulation and Management Reports to be carried out through rapid electronic technology. The Pakistan Library Association in collaboration with the Netherlands Library Development Project (NLDP) has developed "Library Automation and Management Programme" (LAMP) an integrated library package which includes Acquisition, Cataloguing, Circulation and Management Reports. Lamp is based on "Computerised Documentation Services/Integrated Scientific Information Systems" (CDS/ISIS) developed by UNESCO for developing countries. It is a fact that if the Librarian undertakes above mentioned efforts properly, then he/she will be in a position to prove himself/ herself that whatever, whenever, whoever puts any question, the prompt answer will be on the LIPS of the Librarian. I am sure, such services will obviously be the source of recognition of librarianship in our country.

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# **Modular Approach in Teaching**

**By**

**Muhammad Javed Iqbal\***

## **Introduction**

Module is a form of self-instructional package and thus regarded as relatively recent phenomena. It enables the learner to have a control over his learning and accepts greater responsibility for learning. Since strategy demands greater maturity on the part of the learner, the modules are more appropriate for more mature students. In recent years, the consent of modular curriculum has been under discussion in secondary schools. In Modular approach, all the capabilities required to perform are closely inter-related: sets of task are grouped together e.g. capabilities required to manage institutional finances include generation of finances, allocation, accounting and monitoring. All these can be grouped together and is called financial management. Modules can be developed separately for each of inter-related tasks.

## **Characteristics and Advantages of a Module**

A module is a set of learning opportunities, organized around well-defined topic which contains the elements of instructions, specific objectives, teaching/learning activities and evaluation using criteria-referenced measurement. Thus, a module should have following characteristics:

It should be independent, self-contained instruction, and contain well-defined systematically organized learning opportunities with clearly defined objectives alongwith means of evaluating the work.

## **Credit Accumulation**

In conventional time tables, students follow course for a long period and the possibility of changes is minimum. Credit accumulation through modular schemes works very differently. Students choose units in a way: those allow them

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to limit to logo-like, an individually designed course. The designer of the scheme will make choices of studying structure II before structure I is clear.

Any how, the curricular planner will make some decisions about essentials, core modules to be taken by all, and areas where student choices can be expressed across the full range of offer. Information about progress is made normally at the end of module and is recorded within an overall assessment framework. The certification of modular programmes leads to many schemes of credit banking.

### Credit Transfer and Dual Certification

Students can transfer credits forward from one institution to another in building an individual curriculum programme. A number of schemes have been established in higher education.

### Short-Term Goals

A key organizing principle of modular scheme is the explicit statement-for the teacher, student and parents. This reflects short term goals established for that unit of study. These goals are achieved for the long terms aims of the programme of study. Many teachers report about evidence of improvements in grades for students on modular approach as compared to traditional courses. (Morn, 1988; P.9)

### Curriculum Over Crowding

There is over increasing competition among the subjects to be included in secondary schools. There are lobbies of technical, vocational, creative personal, political and social groups. If the curriculum is structured for two-years subject courses, then increasing number of subjects will have very limited time for each subject. Broadly-based modular courses provide a frame work in which new skills and contexts can be introduced in a current way.

### Gender Stereo Typing

Girls and boys view it easier to take short units in those subject areas which are traditionally avoided. Girls may take 30 hours module than 2-year traditional course just they may like to take 20-hours module on metallurgy than the one year course.

## Linking Academic Vocational Activities

A trend is to introduce more practical and applied vocational element in to curriculum. Many schemes have chosen modular approaches to achieve this goal. Schools may develop modules by using the facilities of credit bank. A student may select a module which can be recorded on achievement record and/or certified through a vocational dating body.

## Mixed-Age Grouping

A curriculum which is divided into free-standing modules with well specified objectives, increases the possibility for mixed age-group. But in secondary classes, this is not practiced, but existing classification and division of students on age is being criticized. Another base of criticism is that assessment is being shifted from "norm referenced" to "criterion referenced" and criterion is clearly defined in module.

## Safe-Guarding the Teacher's Specialist Identity

Modular schemes have advantage of safeguarding the teacher's specialist identity with modular science or humanities e.g. a doctor can make purely specialist contribution. Modular structure allows teachers who wish to experience teaching in other related areas on short term rather long term. So modular approach provides such experience to the teachers.

## Schemes Help to Build Confidence in Modular Teacher Organization on Teaching

Modular schemes allow to have flexibility in planning teaching teams. Teachers can experience over a limited period of time with new activities or new subjects. Specialist can borrow from other areas for contribution to a specific programme. Curriculum can be adjusted step by step. Teachers can work collaboratively over the span of one module unit and independently for subsequent units.

Keeping in view the above points, following may be described as the fundamental characteristics of the modules.

1. Essentially self-contained, self instructional
2. Concern for individual differences

3. Statement of objectives
4. Association, structure sequence of knowledge
5. Utilization of a variety of media
6. Active participation by learner
7. Immediate reinforcement of responses
8. Mastery of evaluation strategy (Chanrill, 1982, P.5)

## Rationale

The major cause of module's use is that it cares for well established conditions of learning alongwith flexibility in implementation.

## Advantages

Following are its advantages:

1. Users study the modules in their own working environment.
2. Users can study without disturbing the normal duties and responsibilities.
3. Modules can be administered to single use, small group or large group.
4. Modules are flexible so that implementation can be made by a variety of patterns.
5. Modules are economical in their use.

## Components of Modules

There are many different styles for designing instructional modules, but agreed components are:

1. Rationale: An overview of the content of module and explanation of why the learner should study it.
2. Objectives: What is expected outcome of module. This is stated in behavioral/performance terms.

3. Entry Test: To determine if the learner has prerequisite skills needed to enter the module and to check.
4. Multi Media Materials: A wide variety of media is used so learners can involve actively and utilize their senses.
5. Learning Activities: Presentation, demonstration, drill simulation, discovery problem solving etc. may be useful. A wide variety of learning activities increase student interest and cater student needs.
6. Self-Test: This provides a chance to review and check ones own progress.
7. Post Test: To check whether the objectives have been achieved or not?

## Designing Modules

A module should have an introduction to topic and instructions or suggestions for use. If module is to be used under the supervision of Instructor, then oral instruction may be sufficient. But in most cases, printed study guide is a part of the module. The guide should provide introduction of the topic and related activities and media with objectives. It would give instruction for learning activities, space for questions and responses may be provided. Study guide should be as simple as possible. It should contain essential directions. It is important to monitor each student's progress in order to reward success and eliminate frustration. At the end, teacher should discuss activities individually or in a small group. The teacher and student (s) can go over the nature of the problem presented in the module, compare answers if appropriate and discuss concepts learned from module. Follow up discussion may be used as evaluative devise in addition to or instead of written quiz. (Based on Robert Heinich et-al work "Instructional Media", 1990)

## The Planning Stage

First to identify target population, its nature and scope. For example, whether module is to be used for national, provincial level, pre-service, in-service training, formal or non-formal system. After this, needs are to be determined. Module developer will provide inventory for topics. Next step is to survey existing modules, if any. If any module exists, then to evaluate its significance, relevance with objectives at hand. Then, developer collects the possible information. If ma-

terial is available, the usefulness of the material should be assessed. Parkee and Rao (1981) pin points these questions in this concern:

- a) Is the selected topic worthwhile?
- b) How will the target group benefit from this programme?

After this exercise, developer will proceed to formulate a specific plan of module development. This will move through these questions:

- Who is going to develop the module?
- How it will be developed?
- When it should be completed?
- How much it will cost?
- What kind of resources will be mobilized?

While formulating plan, it is advisable to keep it flexible and practicable.

## 'The Drafting Stage

The first and foremost thing is to formulate objectives of the module. These are based on need assessment which was determined at planning stage. It is better to have performance objectives as these serve guide lines for developing module. For writing performance objectives, Gagne and Briggs (1973) have identified five elements as:

1. Situation
2. Learned Capacity
3. Object
4. Action
5. Tools or other constraints (P.26)

Special attention should be paid in choosing action words. The major verb of the objective statement has the purpose of communicating the kind of human capability one expects to be learned.

After statement of objectives, the next step is to select learning experiences which might lead to the achievement of objectives, local available low cost resources may be useful. But modular developer should be careful in hierarchical arrangement.

Now developer is ready to select a module and its components. First of all, he sketches mental picture, then also decides whether the module is individualized self-contained or otherwise.

Then actual write up starts. This requires skill and talent. Direct plan and simple language is necessary. After first draft writing, it should be edited: both format, components and language wise.

## The Revision Stage

The manuscript should be reviewed with special attention to the format, the components and editing. Now copies are ready for individual try out. Try out is made of readability, difficulty level, content organization and adequacy. Testing module should be administered over carefully selected sample. For more reliability, administration selected sample. For more reliability, administration should be made over a large sample. For small try out a sample of 30 is adequate. After try out, and necessary modification, module is ready for printing. Pareek and Rao (1981) briefed the module development process as:

- a) Identify the needs of the target population and choose the topic.
- b) Collect relevant information on the topic and verify the necessity for developing a new programme or module.
- c) Make plans for developing module.
- d) Formulate objectives of the module based on results of assessment of needs.
- e) Select the learning experiences. These can best achieve the objectives and arrange them in logical order.
- f) Decide the format and components of the module.
- g) Write a draft module.
- h) Review the draft module and make revisions.

- i) Select at least three students, each representing fast, slow and average learners from the target population and test the module on them and revise the module according to the results obtained from test.
- j) Conduct further small scale or large scale try out and make suitable revisions. If and when necessary.
- k) Print the manuscript (pp.68-69)

## Writing a Module

Components of module are:

1. The title
2. The Introduction
3. The overview
4. The instruction to the users
5. The pre-test evaluation and feedback
6. The objectives
7. The learning activities
8. The formative tests, evaluation and feedback
9. The summative test evaluation and feedback.

Learning activities occupy a very significant place in writing module. Only some principles underlying the design of learning are discussed here.

## The Learning Activity

Learning brings change in the behavior of the learner. The difference between entry behavior and terminal behavior is learning. It is actually result of learning experiences. Selection of learning experiences always remain a problem in curriculum development. Students have to learn more than they have time in school. At classroom level, pull and pressure groups have become more critical (Wiles and Bondi, 1989, P.169). Module planners must realize that classroom teacher is to carry out the instructional programme so module should provide flexibility in selecting learning experiences. Learning experiences fall into two general categories; informal and formal. In informal category, teachers are conscious of the fact that some learners need more time and attention to master a particular skill, concept or body of knowledge while in formal category a unique programme of experiences if provided; for every child may meet the requirement.

This is conceived in a different way by National workshop on the use of Modular approach in Teaching of Science For Rural Transformation (1977) These are under the title of elements of Module.

- a) Introduction
- b) Activities
- c) Evaluation
- d) Basic elements of programmed instruction such as gradation of subject matter and drill in skills are also considered as the element of modules. But learning activities may follow multimedia approach with multi sensory experiences. Secondly activities may be multi-mode in their nature e.g. lectures, discussions, workshops, symposia, panel discussions etc. Thirdly activities may be multi content in nature i.e. different levels of difficulty. Fourth activities may have difficulty. Fourth activities may have different approaches, these may be through writing, speaking, viewing, listening, reading, manipulation, project work, field work. Fifth activities those follow different models.

### Principles Underlying the Planning of Learning Activities

There are seven principles to be kept in view while planning learning activities:

1. Plan learning activities on the basis of entry behavior of the learners.
2. Base learning activities on the terminal behavior.
3. Base learning activities on the needs of learner.
4. Make careful gradation.
5. Provide adequate for individual differences.
6. Provide adequate with his progress.
7. Provide learner with his progress.



# Time Tabling and the Modular Approach to Curriculum

## Development

Time table should work in educational as well as structural terms. It must make sure that "properly grouped pupils are undertaking relevant learning with an appropriate member of staff in an appropriate space for an appropriate length of time with appropriate frequency" (Taylor, 1988, p.165). Unfortunately, traditional time table does not fulfill this criteria. Word "Subject" is left out of criteria as it restricts the efficiency of many time tables. The basic unit of standard time table is made of four elements 1) group of peoples 2) a subject 3) a room 4) one teacher. Unit once established should remain undisturbed through out the year. The basic principles of the time table is that pupil must receive certain amount of particular subject, the amount being defined by quantity of subject matter and or time. Time table should be flexible rather than rigid.

## Modular Arrangements

The parameters of modular systems include:

- Length of each module.
- The number of staff in teaching team.
- The range of specialism that can be offered by the teacher teams and are considered relevant.
- The nature of special needs support.
- Teaching space availability: and
- The number and length of block (periods) allotted to the curriculum area. (Taylor, 1988, p.200). Some modules are offered more than once in each cycle so to make it more flexible for individual course planning.

Option systems can be modified to operate on a modular basis but it is difficult to have a system that offer full benefits of a modular approach without at least having some elements of a curriculum area framework.

## Evaluation of Module

Evaluation is the first step in improving module writing. Evaluation is made against characteristics and advantages of module discussed in earlier pages.

- Does it contain elements of instruction.
  - a) Specific objectives: The prime criterion of a module, whether these are stated in behavioral functional terms or not?
  - b) Teaching-learning activities: Does the module provide teaching/learning activities which cater the demands of the objectives and also situation where they are to take place.
- Independent nature: A module is well organized independent unit/version of content. It can be taken independently or not?
- Systematic organization: Whether the organization is systematic both psychological and logical, though it is possible to have a organization which may be logical not psychological but a module might observe both characteristics.
- Evaluation style: Module define the mode of evaluation for which students are to be evaluated. This is advantage over traditional text.
- Credit accommodation: Is module provide a chance for student to build logo like, an individually designed course. Is it consists of series of core module to specialized modules.
- Credibility: A valid and sound module is that whose credit is accepted by other institutions and so this credit can be transferred to other areas, institutions.
- Level of Linkage between academic and vocational activities: This is of especial value for modules at secondary or terminal stage. Does it provide provision for application of academic content included in the module.

- **Age-Grouping:** Is module is only useful for a specific age level. A better module would be that which might be used by different age groups.
- **Variety of Media:** A module is said to be a "good" if it uses a variety of media according to the demand of the content.
- **Accommodation of Individual differences:** Psychologists emphasize on individual differences, accommodation of individual differences leads to better learning. A module is better if it accommodates individual differences also.

## Assessment in Modular Schemes

In modular schemes, aim is to make learning more effective in the interest of all students. This can be only achieved if learning is measured effectively, realistically and constantly. **Criterion-Referenced:** there is trend towards criteria referenced from norm referenced. This shift is due to increased pressure to raise standard of education. **But,** assessment of individual as individual will also remain. In this, individuals are compared against their potential (path referenced assessment) or prior achievement, so it helps to establish a system of assessments other than marks or grades.

## Fairness

In past every effort has been made to tackle the problem of biases: both cultural and sexist.

In module assessment, teachers and pupils are involved extensively throughout the course for catering problem of bias positively.

## Whole-Course Planning

Assessment should be made in integral part of whole course planning not as end product assessment activity (Macintosh, 1988, P.158). For this assessment module may or may not be the same.

The degree to which match will depend upon the objectives of the course and the points at which it seems most useful to appraise and discuss student performance collectively and individually. This may be in mid or over several units. For whole-course planning, key questions are:

1. • What are he intended out comes of the course?
- 2. What evidence is required to ensure that learning relevant to these out comes has taken place?
3. What teaching/learning activities need to be provided in order to produce that evidence? (Macintosh, 1988, P.158)

### Positivity in Assessment

Positivity in assessment means that “any question must enable all those for whom it is intended to show, through their answers in their own terms, what they can “do” and can be rewarded for doing it”. It includes setting and marking. Positive assessment can be made by asking everyone same questions or by asking different people different questions. This may be formal or informal. Informal and intermittent assessment approaches may be more appropriate for modular programme. The aim of which is to provide different routes for students of different abilities and interest. These differentiation impose challenge to those who design and assess.

The Cockroft committee (1982) identified the difference in module assessment with reference to public examinations when it is stated that no award should be made to a student until he performs 50 percent mastery of the examination. Modular approach to curriculum development has following advantages over traditional one:

1. They can readily be made cross-curricular in scope.
2. They can make very specific and very practical demands and can in consequences give rise to post realistic and manageable tasks.
3. Development of assessment practices those encourage cross-curricular initiatives.
4. Methods of recording and quality control.

These are of vital importance as curriculum is based on themes and activities while cross curricular approaches require tighter management than subject-bases vertical approach. Such a curriculum should need to be reflect:

1. To the student that clear programmes exist with clear connections among past and future.
2. Continuous relationship between process and content within any course of study.

3. Consistent relationship between learning programmes and assessment criteria.
4. Both the necessity and the opportunities for co-operation and interaction between individuals and where relevant, between institutions.

So, thrust of modular approach of curriculum development is on whole-curriculum planning.

## Certification

Certification is resultant of assessment. Clearly there is problem of mismatch between contents of record and requirements of a certificate. The difficulty is particular with horizontal modules which emphasize cross-curricular flexibility. But this will disappear or become less significant when teachers become more confident in modular approach.

So modular approach provides more flexibility to distance teaching mode as well to learners.

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# Development Support Communication: Paradigms of the East and the West

By

Syed Abdul Siraj\*

## Abstract

Development Support Communication is an activity aimed for purposive change in a society to achieve what may be regarded as an improved state of socio-economic conditions. It is the systematic use of the art and science of human communication to persuade specified groups of people to change their habits and life style or ways of thinking.

Development Support Communication as a systematic discipline of academic pursuit, gained much of its prominence with the emergence of newly decolonized countries after the World War II. During that era, development was thought to be *Economic growth*, the measure of which were GNP and per capita income. The Third World countries looked upon to the sign posted by the historical industrial revolution for their development. Euro-American social scientists of 1950s and 1960s viewed that the path of industrialisation was the infusion of resources- capital, technology, expertise, etc. and the requirements to pledge to accede to fundamental socio-psychology transformations, in which: traditional system of authority would decline; private enterprise would supplant barter economics; archaic customs, mores, and system of family structure and living would abundant and adoption of modern education, individualism, nuclear family structure and urban living be encouraged.

The revolution of high expectation for development in the Third World has been a major casualty of the past two decades. Critics of development interpret that *development* process cannot be measured with one or few indicators rather it is a long process through which an overall personality of the people is rehabilitated. The Third World has developed a thinking for proper utilisation of all their energies and manpower, dealienation of human being, restoration of dignity, self-respect and faith in one's own capability. They came to know that self-reliance, participation and integration of traditional and modern system are the key for development in which communication

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must flow horizontally rather than vertically. Analytical study of the two paradigms are presented in this paper.

## Dominant Paradigm of Development

The dominant paradigm of development came into being in the 1960s based on the idea of modernisation. Change agent of interpersonal system, together with the multiplying mass media are the twin pillars of the dominant paradigm, to introduce new ideas and practice in a given social system. Communication in the Dominant Paradigm became the crucial instrument of directed social change initiated and instigated by outsiders representing programmes of planned change. It is the strategy of communication which flows from top to down. Development planner at the *Top* and relay *Down* by technical assistance, intermediaries through governments beneficiary for implementation by using mass media and interpersonal communication.

The powerful effect characterisation is known as *hypodermic needle theory, the bullet and mechanistic S-R Theory* has largely been assumed in the dominant paradigm. The paradigm puts heavy emphasis on investments in the *Modern* sector with the hope that it would trickle down the advantages to the traditional setting. The model considers the media as prime mover and teacher that impart knowledge at large. Experts of the dominant paradigm assume that main causes of underdevelopment lay within the underdeveloped nations rather than external to it. 2 The causes are thought to be:

1. an individual blames nature (peasants are traditional, fatalistic and generally unresponsive to technological innovation) and
- 2) a social structural nature within the nations (For example, a complex govt. bureaucracy a top heavy land tenure system and so on.

## Historical Perspective of Dominant Paradigm

The concept of dominant paradigm of development came out due to the following historical events:

### *The Industrial Revolution*

During the later 18th century, industrialisation took place in Europe and North America. It was assumed that industrialisation is the main route of development. During that era, agriculture was given low priority factor for development. 3 The less developed countries were advised by the development planners to industrialise by having steel mills,

hydroelectric dams, manufacturing Industries etc. The exponents of this paradigm are of the view that technology and capital are the key factors of development. They assume that technology is the best substitute of labour.

### *Capital -Intensive Technology*

It is assumed that development has always been integrated with technology. The dominant paradigm's experts opine that more the technology replace the traditional way of thinking, greater the development would be. According to Roger, for bringing about any development in a society, "The high capital technology would be provided by national governments, by local entrepreneurs, by international loans and through the activities of multinational firms usually owned and controlled by the industrially advanced nations".

### *Economic Growth*

It is an established hypothesis that men always respond actively when there are economic incentives. This assumption also works to motivate the people of a community for the behavioural change required for development. This factor has been approved by all the nations that there would be no development without economic growth. During the 1950s and 1960s, every country had established national commissions and set 5-year-plan in order to guide the national government towards economic development activities.

### *Quantification*

According to the philosophy of dominant paradigm, development can be measured by per capita income as the main index. The experts of the model believe that "growth -first and let-equality-come-later". According to Rogers, this mentality was often justified by the trickle down theory- that leading sectors once advanced would then spread their advantages to the lagging sectors."

### Over view of the Dominant paradigm

- 1) The existence of a free enterprise system giving transnational corporations access to both raw materials and sale on the commercial market.<sup>4</sup>
- 2) Investment in the modern sector.

- 3) Importation of advanced capital intensive technology by the developing countries.
- 4) Stimulation of saving by preserving income gaps, particularly in the developing countries; the assumption that equalisation leads to less savings (less money for investments)
- 5) Development aid in the form of loans, "gifts" technical assistance, and trained personnel.

## Criticism

Critics of *development* interpret that development process cannot be measured with one or a few indicators such as G.N.P, per capita or degree of industrialisation. Development is, rather a process whereby the overall personalities of people are rehabilitated. It is just as much a development of mankind as it is a development of material. The widely felt need to revise the Dominant paradigm for development is judged on the experience of the past two decades. The development gap between the rich and the poor countries are increasing instead of decreasing. The rate of literacy in the Third World is deploring, health facilities are poor, starvation, famine and malnutrition are still the their problems. Following reasons are put forward to understand the short comings of dominant paradigm:

### *Capitalist world Model*

The dominant model of development has been considered a capitalist-oriented model. It does not meet the socio-cultural and political needs of the less-developed nations. Moreover, its capitalist nature has proven flawed to help the *trickle-down* scheme of advantages. The outcome of development effort was in a large number of countries on the basis of dominant paradigm. The general conclusion is pessimistic.

### *Unequal Distribution*

Dominant paradigm measures developed on per capita income as the main index. Although the average per capita income of the Third World has increased since 1960, however, this growth has been very unequally distributed among countries, regions, within countries and socio-economic groups.

## Stress on Economic development

Dominant paradigm stresses only on economic development and gives less importance to social values. In this model, there is no link between the economic development and the living condition of the majority of population. While social conditions of a society and economic development are integral to each other.

### *Top-down Communication*

The strategy of communication in the dominant paradigm of development focuses on information flow from top to down. Development planner at the top relay knowledge and information by technical assistance. This powerful vertical effect characterisation is made through the concept of *hypodermic needle*, whereas, in this age of democracy, people must be given opportunities to speak their minds.

### *Alternative Model of Development*

Under the dominant paradigm, social and economic development imposed upon the third world countries resulted in an alienation of people from their original and natural potentials. Consequently, the Third World countries started thinking for the utilisation of all their energies, the manpower delineation of human being, restoration of dignity, self-respect and faith in one's own capabilities.

This trend led social and economic scientists of the Third World to search for a new model of development. The idea for an "Alternative Model of Development" came from China, Tanzania and Cuba. In Alternative Model socio-cultural and other than economic values are taken together as development indicators and goods and services are viewed as social utilities rather than simply as the items for sale. Equal distribution is the major focus of attention of the Alternative Model. Other social imperatives of the model are self-reliance, participation and integration of traditional and modern systems, etc.

Communication in the Alternative Model occurs through a net of interpersonal channels, built around small groups. Innovative messages are re-inforced through mass media, particularly via radio.

China has developed group system at village level where most of the innovations, human development and normative changes take place. According to Goran Hedebro, these groups often consist of between eight and fifteen persons and the average Chinese may be a member of several such groups. In these gatherings, policy of government is

transmitted through mass media and discuss, either in general or special attention to some aspects that may directly concern the people. Meetings of these groups are often held under the guidance of local party officials, and they discuss all kinds of social matters. This is important to point out that group at village level in China is highly autonomous in making its own decisions subject to the main ideology of the political system.<sup>7</sup> In these groups, norms are set on what is right and what is wrong in a particular situation or on a given issue. He further says that the study groups are an important tool for breaking deeply rooted traditional values and beliefs and replacing them with the ideological content of the Communist party

## Historical Perspective

The Alternative Model evolved during the 1960s and 1970s. The intellectual criticism against dominant paradigm combined with the following international events paved the way for emergence of Alternative model of development:

### *Environmental Pollution*

The capital intensive technology has created problem of environmental pollution after the industrial growth in the developed nations. A question mark was raised that how could dominant paradigm be ideal for overall development in a society.

### *World Oil Crisis*

The world oil crisis gave an idea to the developing nations that they could also play their role in the international arena. This made up their mind that causes of their poverty are not internal as hypothesised by the developed nations.

### *Relationship with China*

The establishment of relationship of China with other nations during the 1960s and 1970s has changed people perception towards strategies and methods of development. The wonderful results produced by China in health, education, agriculture, family planning, technology and other spheres of life were something miraculous to modernisation achieved by a country which was one of the poorest countries a few decades earlier. This is important to note that all this was accomplished with little foreign assistance.

## *Realisation of the Third World*

The most convincing factor for failure of dominant paradigm was the discouragement and realisation of the Third World that development was not going very well in developing nations that had followed the dominant paradigm.

### Common Features of the Alternative Model

Alternative Model in its features, methodologies and strategies etc. would vary from nation to nation. However, the following features are found common in alternative model wherever it is applied:

#### *Self-reliance*

Self reliance stresses the use of locally available raw material, simple production process and use of indigenous know-how accumulated over the years.<sup>8</sup> Goran Hedebrö (1982) has listed the following advantages of self-reliance approach:

1. It makes use of the great surplus of work power, which so far has had few alternatives in rural areas. In most Third World contexts an appropriate technology is one of low capital intensity but high labour intensity.
2. It takes advantage of existing knowledge, thereby diminishing the need for mass educational information campaigns on how to use a new technology.
3. It creates job opportunities in rural areas.
4. It can be more useful in the sense that the commodities produced can be adapted to fill local needs. It is different from large scale technology, which mass produced standardised products not suited to specific uses.
5. It promotes the idea of co-operation and the notion that one person, together with others, can do something about the problems facing a village or a country.

## Equality in Distribution

In the new model more emphasis has been given to the equal distribution of information, socio-economic benefits so as to close the gap between the haves and the have nots. The model focuses much attention to concentrate on villagers and the urban poor as should be the priority audience for development. The dominant paradigm encouraged those who had financially sound position in the society, to have costly machinery, fertilizers and crops. This environment has further increased their domination over the poor. Alternative model believe that if equality is to be promoted, the information flow must be checked and ensured that the output of media is used by all segments in the society.

## Integration of Traditional and Modern System

The new model recommends the integration of traditional system with the modern one. The practice of *Acupuncture* and other traditional medication is still recommended along with the modern methods of antibiotic. The earlier paradigm of development rejected the traditional system and only the modern system got its way as counterparts.

Omo 'ardaka (1974) said that "African countries should not imitate the patterns of industrialised countries, but adopt development pattern suited to African indigenous traditional and culture patterns".

## Popular Participation

Popular participation in the development planning and execution is the main strength of alternative model of development. The element of participation motivates people's interest in the development of their own community. A fault that has commonly been pointed out in the dominant paradigm model while undertaking development efforts in the third world countries is that the receivers of the development programmes have been given little attention to participate in the decision making process. Particularly in China, decisions are not taken until immediate concerned are given a chance to express their views. Even in China there is a group planning of birth at village level where the villagers decide how many babies they should have each year and who should have them. In Tanzania, it is believed that "people cannot be developed, unless they develop themselves". This realisation is also felt in the capitalistic setting such as Korea and Taiwan.

## Conclusion

Development Support Communication in the Alternative model is not something to be imposed from the above. It has to be an interactive approach and should be materialised with a mutual interplay between leadership and the masses, where the latter make up the potential force and the leader act as path finders, seeking out channels through which the force can be exerted. To make this interplay, there have to be channel for information exchange. It is difficult to foresee results of implementation of any model without taking into account the differences between countries, regions and villages.

According to Goran Hedebrö 10, "Many nations look towards China for solutions to their economic, political, and social problems. The questions are: What factors in the Chinese development have made it possible to attain a basic standard of living for its population? To what extent is China's experience transferable to other nations, to other political settings? and, "What tasks are allotted to the media in the Chinese model, how are they carried out, and to what extent might elements of this communication model be applied in countries that follow a politically different course?"

Undoubtedly, the increased interest in China today has resulted from additional information about what has been going on and what is going on in the country. This increased knowledge has been brought about by changes in relationships between China and other nations of the world. This was particularly noticeable in the 1970s. Other countries have similar records of conquering in a short time some of the central problems faced by developing nations. Cuba and Tanzania, each in its own way, probably present the most interesting examples in their respective efforts to develop. Like China, both these countries have attracted attention for their ways of handling communication/education problems. Cuba for its campaign to eradicate illiteracy, and Tanzania for its method of using radio information campaigns to try to solve development problems. To understand the particular communication aspects in the models, we can look at the ways in which the above mentioned countries deviate from the dominant Western model. It is possible then to discuss whether possibilities exist to transfer parts of these models to other countries." According to Rogers (1976) 10 "By the mid-1970s it seemed safe to conclude that the dominant paradigm had "passed" at least as the main model for development in Latin America, Africa, and Asia. Of course, it would still be followed enthusiastically in some nations, but even then with certain important modifications. The Chinese model, or at least particular components, had been (and were being) adopted elsewhere when nations were willing to forego certain advantages of liberal democracy for the tighter government control that they thought to be necessary to maintain nationhood over tribal, religious, or regional factions. While Cambodia, Vietnam, and perhaps Tanzania were influenced by the Chinese route to



development, they seem far from very exact replicas. So multiple and varied models of development were now in style”.

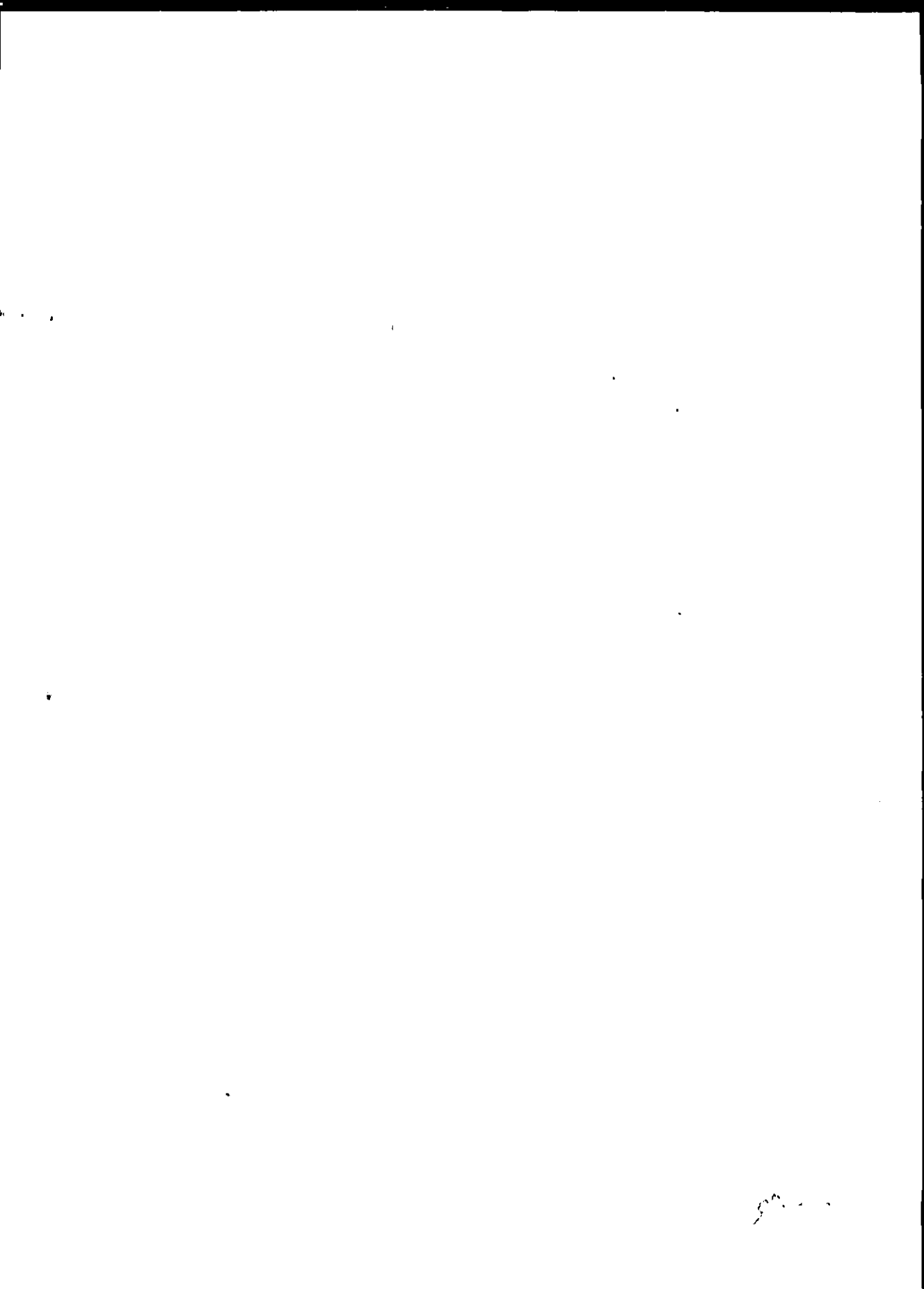
Table below summarises these emerging alternatives to the dominant paradigm of Development and some of the possible factors that lead to them. // (Taken from Communication and Development- critical perspectives by Everett as Rogers page 132.)

***Emerging Alternatives to the Dominant Paradigm of Development***

Main Elements in the Dominant paradigm of Development	Emerging Alternatives to the Dominant Paradigm	Possible Factors Leading to the Emerging in Alternatives
1. Economic growth	1. quality of distribution	1. "Development weariness" from the slow rate of economic development during the 1950s 1960s. 2. Publication of the Pearson Report 3. Growing loss of faith in the "trickle-down" theory of distributing development benefits.
2. Capital intensive technology	1. Concern with quality of life 2. Integration of "traditional" and modern system in a country. 3. Greater emphasis on intermediate-level and labour intensive technology.	1. Environmental pollution problems in Euro-America and Japan. 2. Limits to Growth  3. The energy crisis following the 1973 Yom Kippur war
3. Centralised	1. Self-reliance in development 2. Popular participation in decentralised self-development planning and execution (e.g., to the village level)	1. The People's Republic of China experience with centralised participatory self-development (widely known elsewhere after 1971)
4. Mainly internal causes of under-development	1. Internal and external causes of under development (amounting to a redefinition of the problem by developing nations.	1. The rise of "oil power" in the years following the energy crisis of 1973-74. 2. Shifts the world power illustrated by voting behaviour in the UN General Assembly and in the UN World Conferences at Stockholm, Bucharest and Rome. 3. Criticism of the dominant paradigm by radical economists like Frank and other dependency theorists

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# Science Education Through Distance Learning System

By

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## I Introduction

As we all know, distance education approach has emerged as a response to the diversified growing educational and training needs of the tremendously increasing population in the world in general and in the developing countries in particular. The ever-growing pressure of increasing number of children on traditional educational institutions and limited resources led the educationists to explore non-conventional alternative strategies to meet the new challenges which led to the adoption of distance education system. Pakistan, with an estimated population of about 114 million, inevitably needs this system of education to meet the growing educational needs of people. The establishment of Allama Iqbal Open University in 1974 was really in response to this genuine needs,

Distance education emerged not only in response to the pressure of increasing number of people, but also because new and more relevant academic programmes were urgently needed to respond more sensitively to ever-changing socio-cultural needs, especially those emerging out of the trends towards industrialization and urbanization which are quite evident in most of the developing countries of the world today.

Some other advantages include (i) the relative low cost, if the number of students is adequate and the courses are planned and executed on long-term bases, and (ii) the opportunity it offers for individualized learning which is generally missing from the formal system of education. There is, however, a word of caution! These advantages of distance education have to be interpreted with extreme care because a very strong element of teacher, which is instrumental in motivating the learners is not there in its traditional form in distance education system.

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It is now an established fact that with the passage of time, the interest of different countries, especially the developing ones, has tremendously increased in distance education. Supplemented by media and tutorial support, the distance education approach has successfully overcome some of the initial formidable problems and emerged almost as effective as the face-to-face traditional system in imparting education in non-science courses. It is, however, generally felt that this system does not seem to meet all the conditions required for teaching pure sciences i.e. natural sciences. This mis-conception is based on the hard fact relating to the physical distance between the teacher and the learner, and for that reason they cannot have an immediate face-to-face contact as against in the formal system of education. But, at the time in the modern world of tough competition in technological advancement, we cannot afford to relegate the position of teaching science simply because of the limitations imposed by the time and space factors in distance education. The situation, therefore, does necessitate for exploring still newer and more innovative ways and means for teaching science to compete in the modern day world. But, before we deliberate upon the same, it seems quite pertinent to hint at some very basic things about science which would help us in understanding the phenomenon and equipping ourselves in a better way and handling the problems associated with science education through distance education institutions more effectively.

## II. Nature of Science

It has rightly been pointed out that science is both a body of knowledge about our environment and a method of inquiry. It has enabled mankind to understand, predict and in some cases even control, to a great extent, the happening of such events which were hitherto considered as something falling in a world simply out of the reach of mankind. Hence, as a result of our continuous inquiry into the phenomena, new sets of facts, bodies of knowledge and syllabi are emerging to meet the rapidly changing needs of the modern day world.

Consequently, the recent past has witnessed an increasing need and significance of the off-and-on revision of science curricula and the development of instructional methods and techniques compatible with the nature and contents of science. As a result of that, we find increasing emphasis on practical work, discovery process, individualizing instruction etc. etc. in teaching and corresponding changes in teacher education programmes in the field of science. This is, however, true about science education in formal educational institutions.

On the other hand, due to the absence of lab facilities for science teaching, the distance teaching institutions have generally been reluctant and hence quite slow in designing and offering science courses at different levels. That is why the AIOU in the past, has been relatively slow in this very important area. But it is quite encouraging to note that the barrier is gradually breaking down because of a number of innovations at the AIOU.

### III. Major Aspects of Science Education through Distance Learning System

A number of major pedagogical aspects relevant to science education, interalia include the following:

#### i) *Correspondence Material*

The correspondence material forms a major part of the total learning package used in distance education. It may take any form, for example, as the following:

- i) Study material in the form of self instructional material, study guide, etc.
- ii) Allied material to be studied in addition to the main study material, etc.
- iii) Work-book for doing exercises and under-taking other relevant activities leading to independent learning.
- iv) Assignments along with instructions and schedule of submitting the same to the tutor.
- v) Schedule of radio and/or TV programmes, if any.
- vi) Practicals book for recording details of practicals conducted at the study center/model study center or at home.
- vii) Any other additional material.

Study material in science education through distance learning system may be developed by subject specialists well versed in distance teaching techniques

Numerous types of activities may also be given in the text at appropriate places. Depending upon the nature of the topic, learning activities may pertain to observation, collection, classification, analysis, interpretations, questioning and requisitioning about different aspects of the phenomena under discussion. As such, the AIOU will have to make drastic changes in its study package for students to make science education more effective through its distance education system.

These study materials, in addition to having theoretical description, illustrations about conducting experiments and other relevant learning activities, may also have glossary of scientific terms which the learner is likely to come across during the study. This would help the learner in internalizing concepts. In the realm of science, especially for students enrolled in distance education institutions, such terms must form an essential part of the study material.

## 2. *Strengthening of Study Centers*

Study Centers provide an important forum for facilitating the face-to-face contact of the teacher (in the form of a tutor) and the learners and among the learners themselves as well. The AIOU is currently having one thousand study centres throughout the country. Effective science education through distance system requires the strengthening of the study centers/ model study centers with a wide variety of non-broadcast media and other relevant equipments such as the following:

- i) Video films of practicals conducted under the guidance of experienced teachers.
- ii) Multiple sets of charts explaining different concepts.
- iii) Flip charts prepared on different steps involved in conducting practicals about which instructions for the tutors and students should be recorded in the accompanying audio cassette/s.
- iv) Audio-cassettes, preferably containing lectures/demonstration sessions by renowned teachers of the subject.
- v) T.V. Monitor for playing video films.
- vi) Tape-recorders for playing audio-cassettes.

- vii) Radio for listening to lessons broadcasting, if there is any, and also general education talks' delivered by eminent educationists and experts in different fields related to science.
- viii) Working models explaining functioning of different machines e.g. steam engine, hydraulic press, etc. etc.
- ix) Solid models of different things.
- x) Any other relevant item.

The entire equipment at the Study Center may be used by the students under the guidance of the tutor who does need an intensive training in instructional as well as in inter-personal skills to promote learning in distance education system.

### 3. *Tutorial Services*

In science education through distance learning system, tutor is the most crucial input. Arrangements, therefore, need to be made for an adequate training of tutors in all relevant aspects at different stages of launching science courses. At the pre-launching stage, training workshops may be held for imparting training to them in a number of aspects including techniques of evaluation, giving feedback, guiding the students in conducting practicals, etc. etc. Accordingly, the training package would contain:

- i. material on general orientation in the philosophy of distance education system and general methods of instruction with reference to the problems emanating from distance education system.
- ii. subject-specific training with reference to the methods of instruction in science and the learners' problems emanating from the very nature of the subject.

Furthermore, the training of tutors may not be taken just as a one-shot activity. Rather there is a dire need to combat the problem on continuous bases with the help of a *Mobile Training Squad* (MTS) duly equipped with mobile labs. This pre-supposes the training of members of the MTSs in techniques of imparting training to the tutors. It is desirable to include in this team (i) Senior Tutor (or whatever his nomenclature) i.e. a person having rich experience as a tutor in sci-



ence/s, (ii) distance education specialist, and (iii) an expert in the use of teaching aids, etc. etc.

*Training Manual* may be prepared for the tutors containing general as well as specific instructions for use as and when needed. This needs to be revised and up-dated along with each revision of the curricula.

#### 4. *Science Kit and its Use in Practicals*

Science kit and its possible use in practical-work does deserve a special mention. It must form an essential part of the correspondence package supplied by the distance education institution. The Science Kit serves as a set of tools in the hands of science student which helps him in exploring the phenomena around, collecting data, classifying and interpreting the same and drawing inferences, etc. etc. The kit, as supplied by the institution, must contain in it the most essential items required for performing practicals on the most crucial concepts to achieve the course objectives. These may, for example, include items like hand lenses, magnetic needle, prism, etc. In addition to that, should also include extremely essential chemicals relating to the maximum concepts through practicals. The learner also needs to be encouraged to make use of improvised chemicals and apparatus. He may, for example, use lemon juice or even indigenous drink "LASSI" for citric acid, tin for container, etc. etc. Similarly, locally available material like torch cells, bulbs, thermometer, common pins, wires, plants, flowers, etc. and many others may also be used by the student to perform practicals. This, however, requires a continuous monitoring by the tutor or the nucleus staff in a number of ways.

The kit must contain a list of common names of some of the chemicals required in practicals. For example, we can motivate the student by telling him that by sodium bicarbonate we mean baking soda, by sodium carbonate we mean soda ash, by sodium hydroxide we mean caustic soda and so much so that by sodium chloride we mean the common salt. The knowledge of student regarding the chemical as well as common names of these items found around would go a long way in motivating him to undertake frequent practicals by using them and internalize the processes involved.

The science kit must have a detailed set of instructions for the student and clearly indicate the hazards which must be avoided while using the kits.

## 5. *Media Support*

In addition to the non-broadcast media, there is a tremendous scope for the utilization of appropriate electronic and other types of media to supplement the printed study material supplied to the students. The more the importance of media in promoting science education through distance techniques, the more difficult and complex process is it to decide about the same. For this purpose, numerous factors will have to be taken into consideration. They may, inter alia, include the nature and objectives of the course/s, learners' number and profile, availability of supportive material, etc.

Usefulness of radio and TV programmes in promoting science education through distance learning system already stands well established. Introduction of internet just few years back and its wide-scale adoption in 1997, is still another technology which is being used quite increasingly by distance education institutions around the world. But all the more, there is a greater scope for the use of techniques facilitating two-way communication among the teacher and the students and even among the students themselves. Teleconferencing may be used for instant link among the science tutor and several individual learners engaged in their learning activities at separate places. It can bring the individual learners together and emerge as a group method of teaching and learning science at a distance. The ancillary media like audiographics can be adopted to send graphs, images, etc. to distant viewers. Still there is a long list of electronic gadgets that can be successfully utilized in promoting the teaching of science through distance education.

Video teleconferencing can go a long way in totally removing physical distances which can prove to be very helpful in promoting the cause of science education. In some cases, distance learners have been known to have attempted to shake hands through the screen at the conclusion of a meeting; having momentarily forgotten that the person they have been talking with is really thousands of miles away. But, before we can go for using such sophisticated techniques, we will have to take into account a number of complex factors including the costs involved, suitability of the media and other relevant aspects.

## 6. *Evaluation*

While the pattern of evaluation of science students, by and large, would fall within the overall framework of distance education, nature of the science course/s does necessitate minor adjustments in the same. In distance education, there has been found a general tendency among the students to accord low priority to practi-

cal work which actually makes the corner-stone of science education whether taught in formal or in distance education institutions. In distance education system, importance of practical work becomes rather all the more greater. Hence, such an attitude on the part of students needs to be completely reversed. For that purpose, a mechanism will have to be evolved to give adequate weightage to the number of practicals performed by the students independently or under the guidance of the tutor who must certify the same on the note-book of practicals for the course/s. This weightage may form a part of the internal evaluation which mainly consists of the assignment component preceding the final written examination towards the end of the semester.

#### IV. Some Issues

Some of the issues pertaining to the promotion of science education through distance way of learning may be briefly spelled out as under:

- i. Balance between theory and practical components of the course/s.
- ii. Emphasis on local situation versus national level phenomena.
- iii. Individualizing instruction.
- iv. Replenishment of Science Kit, etc. etc.
- v. Collaboration between public and private sector NGOs engaged in similar activities.
- vi. Involvement of sectors like industries, agriculture health, etc.
- vii. Bases of collaboration with formal education institutions.
- viii. Any other.

#### V. Interinstitutional Collaboration

Towards the end, a few words seem to be quite pertinent about the inter-institutional collaboration in promoting the cause of science education through distance techniques. With the passage of time, the whole world has shrunk and become global village due to unprecedented developments in communication technology. This offers a tremendous scope for still closer collaboration among dis-

tance education institutions of the world in general and those located in this region in particular in devising the ways and means for promoting the teaching of science. This may entail.

- i. the holding of joint meetings of experts in the field,
- ii. exchange of academic as well as other relevant staff engaged in science education activities,
- iii. exchange of materials and technology, etc. etc.

Holding of such activities as the above ones would help in mutual sharing of ideas, experiences and exchange of materials and technology in the field.

It would not be out of place to mention here some of the innovative steps taken by some distance education institutions of the Asian region the technology about which may be shared by others.

- i) The Indira Gandhi National Open University, (IGNOU) has already started using central facility with a conference room at headquarters and reception arrangements at regional centers and some selected study centers spread all over India for one-way video and two-way audio communication. The technology could be used to promote the teaching of science quite effectively. -
- ii) The Ambadkar Open University makes use of the labs facilities of colleges (both in public as well as private sector). Students who miss the practicals are provided a second chance by mobile lab facilities. As per the announced programme, the van stops at notified car parks each for four hours.
- iii) The Sri Lanka Open University provides mobile lab facilities at regional centers for five days each where the students perform experiments mainly pertaining to situation prevailing in the environment.
- iv) The Allama Iqbal Open University (AIOU) though has already started offering science courses at Intermediate and primary teachers training levels, yet teaching of basic sciences stands out as one of its weak areas. While it is planning to offer some more courses

in basic sciences; it may capitalize upon the experiences of other universities engaged in teaching basic sciences at different levels.

The tremendous amount of communication technology that exists today awaits imaginative and adventurous educators, media specialists and others to come forward and design an effective and accessible system supportive for the teaching of science within the overall system of distance education. There is, however, lot of scope for further research and thread-bare analysis of the topic under discussion and promote the cause of science education through distance education techniques.

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# Special Education Facilities for the Handicapped Children in Pakistan

By

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## Introduction

In our society, disabilities in body or mind, whether genetic or occasioned by disease or accident, have been traditionally looked upon with indifference, callousness or pity. Even parents of disabled children do not usually have a positive or encouraging attitude, rather it is considered to be a matter of shame and social scorn, or superstitiously considered to be the will of God. Mostly the care of the disabled person is left to individuals' charity.

However, in the rapidly changing society, the traditional attitude of indifference and callousness is being gradually replaced by a more sympathetic, kind and humanistic disposition towards the disabled persons. Now, there is a growing realization that disabled persons are also entitled to a respectable and dignified life, and that most handicapped people are endowed with extraordinary courage and talent to combat life's hardships. The view that disabled can be educated and trained, be made useful citizens to earn their livelihood and could become self-sufficient, is gaining general acceptance. It is because of this realization that education and training of the handicapped is receiving greater attention these days. Presently education and care of the handicapped is being accepted as a moral and social obligation of the society. "THE nation which is most decent and worthy of respect is one in which the weak, the oppressed and the sick have the first claim". It is this philosophy which provides the firm foundation on which special education services are built in a society.

Children with physical, sensory or intellectual disabilities encounter learning problems, and need special interventions by way of modified curriculum, special instructional methodology and use of special aids to neutralize/reduce the impeding effects of disabilities on learning and achievements. In the absence of such

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interventions, the handicapped are bound to suffer from a degree of social incompetence and inadequacy to live well below the level of their potential.

## Development of Special Education - A global perspective

The welfare of the handicapped has come a long way since the days of purely custodial and protective care. At first, it was believed that handicapped children were sub-normal and consequently, provisions were custodial in nature. But eventually an attempt at rudimentary education and training became a part of the pattern.

Special education in western society had a true beginning in 16th century. Pedro Ponce de Leon taught some deaf pupils in Spain to speak, read and write. The first book on teaching the deaf was published in 1620 in Spain by Juan Pablo Bonet. This gave rise to a wider interest in the education of the deaf in Europe. In England, John Bulwer (1654) wrote on teaching the deaf to speak and read lips. In France, similar work was later carried out by Charles Michael, abbe L'Epee (1712-89) who made profound contribution in developing the natural sign - language of the deaf. His work was further developed by abbe Sicard (1742-1820) and gave rise to silent method of teaching the deaf. In Germany, Samuel Heinicke (1727-90) educated deaf children orally, and later Friedreich Moritz Hill (1805-74) developed this method which ultimately became accepted practice throughout the world.

No real attempt was made to educate and train the blind until the close of 18th century. Valentine Haüy (1745-1822) opened the first institution for blind in Paris in 1784. Haüy's success soon spread to other countries. Schools for the blind were opened in Liverpool (1791), London (1805), Vienna (1806), Amsterdam and Stockholm (1808), Zurich (1809) and Boston and New York (1832).

Scientific attempts to educate the mentally retarded began with the efforts of Jean-Marc-Gaspard Itard, a French Physician and otologist. Later, Edouard Seguin, a student of Itard who emigrated to US devised an educational method using physical and sensory activities to develop mental processes. Seguin's published works influenced Maria Montessori, an Italian pediatrician who became educator and innovator of a unique method of training young mentally retarded and culturally deprived children.

The field of special education for the handicapped children had its important beginning in the 19th century as represented in the pioneering work of Itard, Seguin, Gallandet, Haüy, Montessori, Braille and many others. In the United States

many residential schools for deaf, blind and retarded children were established during the late 19th century. Early in the 20th century, development regarding both the handicapped and gifted children were modest at best.

In the recent years, a remarkable upturn in the pace of development has been observed. *Special education programmes* in many countries have doubled and redoubled in size in the last two decades. In a summary of a series of nationwide surveys conducted by the US office of education, Machie (1965 b) reported that 442,000 children were enrolled in *special education programmes* in 1948. The comparable figure for 1963 was 1,666,000 which indicates that special education enrollments had more than tripled in 15 years. By 1963, about one-half of the school system in US was thought to be providing some type of special education service.

From the modest beginning in late 19th and early 20th century, the field of special education, in recent years, had received greater attention due to the growing acceptance of the concept that a handicapped child is, in majority of cases, a normal child faced with some disadvantage which is often only temporary. This new attitude is not yet universal and consequently the extent of activity at the national level varies from country to country. The International Conference on Public Education convened in Geneva by the UN's Educational, Scientific and Cultural Organization, and International Bureau of Education, held on July 6, 1960, justified organizing special education for handicapped children on the following grounds:

1. Right to Education laid down in the Universal Declaration of Human Rights applies to all persons capable of benefiting from it, including the least gifted.
2. Principle of compulsory education for all children is to be universally accepted.
3. It is an economic, social and cultural disadvantage for a nation to include a number of handicapped persons many of whom might have become useful citizens if they had been suitably educated.
4. Any particular ability possessed by a handicapped child should be used to further his education.

5. Progress in medicine, child psychology and remedial education had made it possible to identify children suffering from various handicaps and to undertake their education by methods based on differentiated and individualized teaching.
6. The use of differentiated education method should not lead to the complete social isolation of children who need to remain in contact with normal life so that they may later become integrated in it, and that the experienced teacher may take advantage of this situation to cultivate in children different abilities which contribute to greater mutual understanding.
7. The problem of existing special education for handicapped children is always related to the stage reached in providing education for normal children and to differences existing between rural and urban areas as well as to male and female population.

In advanced countries today, special education of the handicapped has become relatively universal. The developing countries are also deeply concerned about it and are showing ever increasing interest in the development of education and rehabilitation services for the disabled. Voluntary associations both at the national and international levels are busy in contributing to the betterment of the lot of the handicapped. In order to promote general awareness and provide greater impetus to the special education and rehabilitation programmes of the handicapped at international level, the UN declared 1981 as the year of the disabled and 1983-92 as Decade of the disabled.

## Development of Special Education in Pakistan

At the time of independence only two government institutions for the education/training and rehabilitation of the blind were functioning at Lahore and Bahawalpur. The Ida Rieu Welfare Association offered education and vocational training facilities for the blind and physically handicapped in Karachi. Over the years the successive governments in Pakistan have been trying to expand and improve the education system.

In Pakistan, provisioning of special education facilities has been largely neglected in the past. Although the special education needs for the handicapped children have been recognized in the successive education policies and development plans, but the main thrust of the government in education sector has been

towards expansion and development of educational institutions for the normal children. It has been, perhaps due to lack of adequate resources to meet even the educational requirements of normal population that the arrangements for special education remained mostly neglected. From 1947 till late seventies, only the philanthropic voluntary organizations established and managed institutions for the education and rehabilitation of disabled persons. However, because of their resource constraints, only a negligible fraction of handicapped population could benefit from the available special facilities.

A survey of special education, facilities for the handicapped children (5-14 years) in Pakistan, conducted by Raja Muhammad Akbar in 1988, revealed that as compared to 3 special education institutions for the handicapped children in 1947, the number of such institutions grew to 10, 28, 66 and 158 in 1960, 1970, 1980 and 1988 respectively. Upto 1980, the number of institutions run by the NGOs and those organized by the Government were almost equal. As a result of the new Govt. policy for the handicapped children, the number of special education institutions in the public sector grew much faster. In 1988, the number of special education institutions run by the Federal Govt. Provincial Govt. and NGOs were 46, 62 and 40 respectively. Disability wise, the break up of the total institutions for physically handicapped, mentally retarded, visually impaired and hearing impaired children was 24, 35, 39 and 60 respectively.

The total enrollment of handicapped children in 1988 was estimated to be 10373 out of which 3247 (31.3%) were girls. About 80% of the enrollment was from urban areas. This enrollment, when set against the estimated total population of disabled children, showed a participation rate of only 1.76%. Further, the participation rates for physically handicapped, mentally retarded, visually impaired and hearing impaired were found as 1.04, 0.79, 0.81 and 9.45. The statistics when further broken down sex wise and areas wise were heavily tilted towards male and urban.

The data gathered on buildings, teacher student ratios, teachers qualifications, availability of transport and hostel facilities and availability of specific teaching aids reflected that Federal Govt. Institutions were favourably placed than others. The NGO institutions which still caters for about 1/3rd of total enrollments face problems due to lack of adequate financial resources. Yet some of them are doing excellent work in this field.

The following table shows the number of institutions for various disabilities as well as the number of teachers and students in 1994:

## DATA ON SPECIAL EDUCATION IN PAKISTAN

	Hearing Impaired	Mentally Retarded	Physically Handicapped	Visually Impaired	Multiple Disabled											
	F.G.	P.G.	NGOs	F.G.	P.G.	NGOs	F.G.	P.G.	NGOs	TOTAL						
<b>Islamabad</b>																
No. of Centres	2	-	1	2	2	1	-	1	-	4	-	2	15			
No. of Children	166	-	66	135	-	35	68	-	60	-	-	-	322	952		
No. of Teachers	18	-	7	17	-	8	13	-	10	-	-	-	19	92		
<b>Punjab</b>																
No. of Centres	6	25	14	5	2	11	4	3	9	5	14	14	1	8	14	135
No. of Children	666	3596	1436	265	80	1035	214	191	300	263	498	436	-	129	1407	10516
No. of Teachers	70	328	159	24	8	129	21	19	78	24	119	62	-	14	104	1159

	Hearing Impaired	Mentally Retarded	Physically Handicapped	Visually Impaired	Multiple Disabled
	F.G. P.G. NGOs	F.G. P.G. NGOs	F.G. P.G. NGOs	F.G. P.G. NGOs	F.G. P.G. NGOs
	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL

Sind														
No. of Centres	1	2	2	8	2	2	3	3	1	8	1	13	9	59
No. of Children	68	146	828	121	406	88	70	175	137	283	531	1484	4337	
No. of Teachers	7	16	108	5	39	7	5	15	20	25	60	149	456	
N.W.F.P.														
No. of Centres	2	9	5	2	1	2	2	9	2	7	6	3	5	55
No. of Children	92	466	163	93	177	265	115	91	64	151	66	134	1883	
No. of Teachers	12	49	15	7	20	15	10	7	3	36	10	18	202	

	Hearing Impaired	Mentally Retarded	Physically Handicapped	Visually Impaired	Multiple Disabled
F.G. P.G. NGOs F.G. P.G. NGOs F.G. P.G. NGOs F.G. P.G. NGOs F.G. P.G. NGOs TOTAL					

<b>Baluchistan</b>						
No. of Centres	1	1	1	1	1	12
No. of Children	32	78	94	42	57-	72
No. of Teachers	1	7	12	1	6	8
						7
						9
						7
						1
						1
						3
						62
<b>Northern Areas</b>						
No. of Centres	1	1	1	1	1	7
No. of Children	30	30	30	30	30	260
No. of Teachers	2	2	2	2	2	13
						6
						13

	Hearing Impaired	Mentally Retarded	Physically Handicapped	Visually Impaired	Multiple Disabled
F.G. P.G. NGOs F.G. P.G. NGOs F.G. P.G. NGOs F.G. P.G. NGOs F.G. P.G. NGOs TOTAL					

AJK					
	Hearing Impaired	Mentally Retarded	Physically Handicapped	Visually Impaired	Multiple Disabled
No. of Centres	-	-	1	-	1
No. of Children	-	-	19	-	19
No. of Teachers	-	-	2	-	2
<b>Total:</b>					
No. of Centres	13	12	4	23	11
Grand Total	79	39	42	11	23
No. of Children	1054	656	314	1741	576
Grand Total	8057	2711	1447	857	790
No. of Teachers	110	54	34	191	61
Grand Total	808	279	189	332	74
Source, Directory of Special Education 1994.					



The areas which need special attention in future are:

- opening of more special education institutions for the physically handicapped and mentally retarded children;
- training of teachers in the aforesaid disabilities;
- procurement/indigenous production of training aids;
- rehabilitation of disabled children; and
- achieving a measure of integration of special education schools with normal schools.

### Alternative approaches for the provision of education and rehabilitation services for the disabled

The programmes of special education and rehabilitation of the handicapped were rather belatedly undertaken in Pakistan and that too in the beginning on ad-hoc basis. But, gradually this aspect of social welfare was given due importance and the government started putting in considerable planned efforts to increase the education and rehabilitation services for the handicapped. During the eighties, the federal government took upon itself to plan and implement a comprehensive programme for ameliorating the condition of disabled population. As a result, the number of special education institutions in the country have significantly increased. However, the trend so far is towards establishing more and more institutions. But Pakistan, because of its resource constraints and lack of professional expertise, cannot hope to increase the number of special education institutions to a level which will cater for the needs of its entire disabled population.

Mr. Miles of Mental Health Centre, Peshawar, has observed that "although the Government of Pakistan has substantially increased its rehabilitation structures, yet in ten years time, at the present rate of expenditure and allowing for population to increase to 140 million, some formal help could be available for perhaps 10% of the disabled children". Thus, under the prevailing economic and demographic factors, the majority of disabled children will have no access to any education and rehabilitation service. This calls for some low-cost and practical approaches to the problem.

In the context of Third World countries, UNICEF and US Agency for International Development have advocated consideration of community and information based rehabilitation services as low-cost alternatives to formal structures. These approaches have both strong and weak points, viz, formal institutions approach. But they can be applied to extend and augment the role of institutions, community-based rehabilitation services imply enabling the community itself to education and rehabilitation approach consists of dissemination of accurate and appropriate information conveyed by any media like pamphlet, manual, radio and TV broadcast, etc. to relevant targets.

According to Miles, for countries lacking in professional skill and community resources "methodical information dissemination, feedback and evaluation, leading to self-generating information system, is an approach accessible to countries at the lowest stages of development and to both government and non government organizations may be the only strategy, for millions of disabled people in third world". Also the *World Programmes of Action for Disabled Persons* (UN 1986) recommends early priority to the establishment of national information resource centres.

### Use of Distance Education for Spread of Special Education

The mode of distance education as practiced in Pakistan in the form of Open University can play a vital role in the spread of special education in two ways. It is already being used for producing a cadre of qualified teachers for the special education institutions and at the same time it can help create packages of useful information which can be effectively disseminated to the concerned clientele in the shape of literature, audio-visual recording and broadcasts. The manner in which the distance educational model as practiced by the Allama Iqbal Open University has been used in the spread of literacy, functional skills, teachers training and general education upto Master and Ph.D. levels. It is no wonder that it can augment the national effort in the field of special education in a big way.

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# Ideal, Desired and Achieved Family Size in Pakistan

By

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**This article is based on the doctoral thesis entitled "Social Factors Shaping Fertility Behaviour in Pakistan" submitted by Dr. Rukhsana Masood to the University of Essex.**

**Editor**

## Ideas about Family Size in General

A strong concept prevails in the Pakistani society that when you get married, you must have children. This belief is partly based on the perceived importance of having children to an individual's life and partly on the idea that having children is a way of showing the loyalty, love and trust a couple have towards each other. Having a child is a mark of a man's commitment and loyalty towards his wife and family, while giving birth to her husband's child is considered a mark of a wife's submission and devotion to her husband and a measure of a successful marriage. Views like this are also common in some other developing countries. Ukaegbu (1978:152), in a study carried out in Nigeria, noted that among Ngwa men and women early and universal marriage is viewed as ideal and having children is viewed as a measure of its success. However, arguably these aspirations could be fulfilled with one or two children, so why do couples in Pakistan prefer to have large numbers of children? As individual preferences are mostly constructed by taking into account the prevailing social and group norms, it is important to examine the normative structure of the society in this regard.

In Pakistan neither men's nor women's preferences about the size of the family are highly crystallised or well formed at the time of marriage or in the early years of marriage. This phenomenon is also common in some other societies. Bach and Matras (1964) in a study carried out in Israel noted that there are societies and sub-cultural groups within societies in which the very concept of a desired or ideal

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family size is unknown. In Pakistan, too, most husbands and wives do not normally have definite preferences in the early years of their marriage and consider it useless for a number of reasons. First, most men and women think that there is no point in considering such matters: it is not within human control because the number of children one has is up to God. Second, children are so important for the formation of family that almost every one wants to have them as soon as possible after marriage. Up to now in Pakistan there has been no concept of a voluntarily childless family. Third, in extended families, which have a patriarchal structure, the older generation has the dominant influence on decisions about family size. Respect for, and subordination to, older family members remains one of the strongest traditions affecting family life in Pakistani society. Although sons always have more say in general matters of life, such as education, going out, or selecting their own careers, in matters like the timing of marriage, mate selection, and family size, they have tacitly to agree to whatever their elders decide for them. This influence is comparatively stronger in those families where the father is still actively involved in economic activities or where the new couple is economically dependent on the older generation. This line of argumentation is also supported by Caldwell (1978:557).

Wives in these households usually also have to cope the hierarchical authority and supervision of their mother-in-law and other female relatives. A number of studies have suggested a link between the institutions of patriarchy and difficulties in fertility control. Cain contents that: "the task of fertility reduction in societies with strong patriarchal regimes is enormously more difficult than in those with weak ones" (1993:60).

This is not to say the older generation dictates exactly how many children a new couple should have. But it may create a situation where a couple feels reluctant to have specific family size preferences. Or the older generation may have some objection to using contraception that ultimately affects family size. In such situations not only wives but husbands also feel inhibited to resist. So in situations like this where men and women do not have much control over their own lives, they do not have very clear preferences about family size. When the older generation economically depends on the younger generation, this authority becomes weaker. As the younger generation provides the parents with economic or physical support in their old age, the power of decision making slowly transfers towards the younger generation. In such a situation, people have more control over their own lives, but usually by then it is too late for fertility control.

Fourth, where people pool their income to run the household, a couple may not have a specific preference for an overall family size. The couples may have children without giving much consideration to the economic burden of supporting them, because this burden is not the couple's, alone, but that of the entire joint family. Furthermore, this type of arrangement may help to develop an attitude that if they have *more* children they will get the major share of family resources. And if they have no children or only one child, they will get a smaller share. In this type of family arrangement, all couples have to pool their income and services to run the house. Individual couples cannot save their income just for themselves or their children. In addition, pregnant women often get better treatment and with more very young children sometimes have to do less household work as compared to those who have fewer young children to look after. It is sometimes said that the over-worked daughter-in-law takes to child bearing and confinement as a godsend opportunity for rest, relaxation, attention and good food. While one more child in the large group of children in the extended family makes little difference, having fewer children in such a situation means putting more resources into the family and getting a smaller share.

Fifth, and finally, most marriages are still arranged and couples are total strangers at the time of marriage, except where the marriages are arranged with a cousin. Because marriages are arranged, couples feel shy about discussing issues about having children with each other, especially in the early years of their marriage. The other reason for this behaviour, besides the fact that marriage is arranged, is the cultural institution of *purdah*. In Islamic society, it is much preferred that females and males are segregated, especially after puberty. Young girls are encouraged not to meet or to talk with boys or men outside their immediate family and near relatives. This is not to say that all females beyond the age of puberty observe *purdah*, but that a certain modesty in dress and a strong encouragement of gender segregation does prevail in the society. As most males and females are brought up in a situation where they are not used to talking freely with the opposite sex, not only women but even men feel shy or pretend to be modest about discussing sexual matters, including the number of children they want, especially in the early years of marriage. Feyisetan and Bankole (1991:284) conducted a study in Nigeria to examine the influence of mate selection on fertility. The results of their study showed that women in arranged unions have higher mean live births for all ages at marriage, at each level of education, at all categories of employment, and at all intervals of age difference between spouses.

Though most couples in Pakistani society do not have any specific family size preference in the early years of marriage, in the process of family formation it

is quite likely that couples do arrive at the point when they start having family size preferences or their ideas change. For example, in the early years of marriage they might think that it is up to God. But after having a certain number, say two or three, they might change their thinking. They may develop quite clear ideas of how many children they want.

Information about family size preferences may not be very helpful in predicting fertility, especially in developing countries. However, to a certain extent such information may still help explain a couple's fertility and contraceptive behaviour. For example, information about family size preferences may show whether a couple really has any specific preferences about how many children they are going to have and whether they act accordingly, or whether they just think that they cannot control events. This may also be helpful in examining changes in ideas and attitudes about family size which may affect the fertility of the next generation, if not their own, since the older generation has quite a strong influence on fertility.

## Study Background and Design

This study was carried out in Faisalabad city during the year 1991. Faisalabad is a very large urban centre in Punjab and it is the third largest city of Pakistan according to its inhabitants with a population of over 1104 thousand in 1981. It has both traditional agrarian characteristics as well as exposure and access to modernisation. It is a dominant city for education, industrial, agricultural, and commercial activity. Hence, it is in many respects a very adequate representation of Pakistan. A multi-stage cluster sampling technique was used for the survey. The survey sample is a sub-sample of the Federal Bureau of Statistics master sample, which includes 920 primary sampling units (PSUs.) 25 PSUs were selected with probability proportional to the number of households. A sample of 250 households (secondary sampling units) was selected systematically with equal probability using a random start and sampling interval. The sampling unit for the study was a woman with at least one living child in the reproductive age span of 18-45 years. A list of eligible women in the sample area was prepared. Out of 250 households, only 198 eligible women were found. Out of these 196 women were successfully interviewed.

The research in this study adopted both qualitative and quantitative research methodology to examine family size preferences. A qualitative approach was used to compare the ideal and desired family size with actual fertility of

women. Quantitative approach was used to explore their motive and constraints behind their preferences.

An interview schedule was developed as a way of trying to ensure that complete and uniform data were obtained. Most of the questions were open-ended rather than structured, but like those which needed the answer of 'yes' or 'no' were pre coded. The categories presented later are the result of the classification of individual responses.

## Results and Discussion

The majority of those interviewed in this study felt that people liked smaller families now than they did in their parents' generation. Two main changes were observed in this regard. First, most respondents think that people want to give proper education, better health care, sufficient food and clothing, and better physical care of their children, which is not possible with a very large family, especially in a period of high inflation. There is also an awareness that it is more expensive and difficult to provide better access to higher education, to find suitable jobs, to arrange marriages, and to provide dowries for the children in a large family. So a large number of children cannot be afforded by low and middle income families. This supports Becker's analogy of decisions to have children with the purchase of consumer durable (see Becker 1960).

Here are some respondents' views:

"I think fewer children are better because it is easy to provide them basic necessities" (Res.No.13).

"In our childhood, mothers just had to give birth to children, bringing them up was so easy with all the support of relatives; sending children to school was also not compulsory; but now it is the mother who has all the responsibilities of looking after the children's needs including their proper education, which is only possible in small family" (Res. No.142).

"Only people who have a lot of money can afford a large family these days. People like us should have fewer children. But I do not know why God always gives more children to poor people" (Res. No.55).

Second, due to the overall changes in society, people have reduced expectations of their children's support in old age as compared to their parents. As most



children move away from their town of birth for work, it is difficult for them to support their own families and their parents also. Where there is geographical mobility, sometimes children expect their parents to help them settle down in a new place rather than provide any financial support to them. These types of changes in wealth flows also affect the perceived importance of children and, consequently, has a depressing effect on fertility. This support Caldwell's (1976, 1978, 1982) suggestion. He argues that the direction of wealth flow within a household is a critical mechanism which influences decisions about family size. The argument is that in agrarian societies, in which individuals are largely dependent on their offspring for support in case of old age or disability, the normal expectation is that over the life time of an individual the direction of any transfer of wealth between generations will be from children to parents. He suggests that when the wealth flow from parents to children becomes of greater importance, then fertility starts declining.

### Large and Small Family Sizes

As mentioned above, most women believed that people want smaller families these days. In order to explore the women's ideas about small or large family sizes, they were asked how many children they considered too few or too many for a family. The results given in Table-1 show that, irrespective of the wife's age, on average seven or more children were considered too many, while just under three on average were considered too few or undesirable. Though most of the women emphasised the need for fewer children, it seems as if they *still* consider three to six children an appropriate family size.

**Table-1** Mean Number of Children Considered Too Small or Too Large by Wife's Age

Age Group	Mean Number of Children Considered Too Large	Mean Number of Children Considered Too Small	N
20-24 years	7.0	2.6	26
25-29 years	7.6	2.7	46
30-34 years	7.9	2.6	50
35-39 years	7.7	2.8	35
40-45 years	8.4	2.7	39

## Ideal and Desired Family Size

'Ideal family size' means here the number of children women considered the best, which one should have, under ideal circumstances, and 'desired family size' means here the number of children women considered appropriate given their own particular circumstances.

Three distinct influences appear to affect people's views about their ideal and desired family sizes. First, there are the norms prevailing in the society and respondents tend to give answers that are socially acceptable. It is frequently asserted that in Pakistan, at the present time, the family size norm lies between four and five children per married couple (Rukanuddin and Faoouqi, 1988). However, there can be confusion between beliefs about the number of children the majority of couples desire, beliefs about the number people ought to have, and the number of children they do in fact have. Previous surveys show that the majority of couples have a preference for four to five children. According to the Pakistan Contraceptive Prevalence Survey 1984-85, the mean ideal number of children was 4.7, the mean desired number of children was 4.8 for major urban areas, while the total fertility rate was 6.0. According to the PDHS 1990-91, the mean ideal number of children for ever-married women was 4.1 for Pakistan and 3.6 children for major cities, while the total fertility rate was 5.4 (Ali and Rukanuddin 1992 : 106). The second influence on desired and ideal family sizes is the actual size of the families. Respondents may feel under pressure to express their ideal and desired family sizes in accord with the number of children they already have, especially those who are nearing the end of their child-bearing age. The third influence on ideal and desired family is the media and family planning programmes. The mass media have been an integral part of family planning programmes since their inception. The main aim of the population communication component is to provide support to the population welfare programmes' goal of bridging the gap between awareness and practice of family planning and making the attitude of the masses favourable towards the concept of a small family norm, which is two children according to the government policy. Radio and Television programmes have included certain programmes and jingles which convey the following message: "Ik Tey Ik Gyara" (which in the Punjabi language means one and one makes eleven); "Two children make a happy family", "Two children with health and education". Newspaper advertisements were carried by almost all the national dailies along with photographs which projected the following messages: Basic needs are satisfied only in small families; with just two children, one can provide health and education facilities as well as a house and a tractor for the family. Sometimes the media also provide information about specific contraceptives on radio, TV, video and film. As this study covered only

urban areas where all the women had radio and most of them had both radio and TV. It seems very likely that those women who reported two children (see Table-2) as the ideal for the families like theirs, or who desired to have two children, were mostly inspired by these family planning messages. They wanted to give an answer in line with Government policy rather than their underlying desires which tend to be higher.

Information about ideal family size in this study comes a standard question, which has been used in many other studies, (Woolf, 1971; Population Welfare Division 1986) to determine the ideal family size, i.e.: "In your opinion what is the appropriate number of children for a family like yours?"

It was assumed that those who had nearly completed their families and may consequently have achieved a number higher than their own preferences, would express their own preference. Consequently, a hypothetical question was also asked about desired family size. The question was, "if you could start again how many children altogether would you like to have had?"

As many women in Pakistan have no idea how many children they or their husband would prefer at the time of marriage, the question about desired family size at marriage was not asked. However, as the respondents in the present study had at least one child already, (and a high proportion already had three or more), it was assumed that they would be more likely to be in a position to have some preferences about their family size. So they were all asked the above question.

Although many women found this type of hypothetical questions difficult to answer, the results provided some interesting information. In the present study, women expressed more than one preference for their ideal and desired family sizes which usually are not fixed. Take, for example, the following comments given by some respondents, "Four children are enough if someone has two boys and two girls", "About three or four for people like us", or "Sometimes I think two would be enough, but sometimes I want to have four". These types of preferences for ideal and desired number of children are observable especially in the situation where they want a certain number of children of a specific sex; for example, if a respondent wants two boys and her ideal and desired number of children are three or four, she may not mind having even eight children just to have two sons. It is important to note that a statement of a specific preferred number in many cases indicates the hypothetical family size in favourable circumstances.

Data from the present study on ideal, desired and actual number of children are generally consistent with the findings of previous studies. Of those women who gave a specific answer to the question on ideal family size, on average 3.7 children is considered to be ideal for a family like theirs. This average is marginally higher than that reported in PDHS 1990-91, which was 3.6 children for major cities. This difference may be because the PDHS calculation was based on ever married women, while in the present study it was based on currently married women with at least one child. On average the mean desired number of children for the sample women who gave specific responses is higher than the mean ideal number of children for families like theirs. Table-2 shows that on average women wanted to have 3.8 children. Table-2 also shows that the mean number of living children of the sample women was 4.1 children, which is higher than both the ideal (3.7) and the desired (3.8) number of children.

**Table-2 Mean Ideal, Desired and Actual Number of Children**

	X	SD	N
Ideal	3.7	1.1	191
Desired	3.8	1.2	183
Actual	4.1	2.2	196

**Table-3 Ideal, Desired and Actual Family Sizes**

Number of Children	Ideal %	Ideal N	Desired %	Desired N	Actual %	Actual N
1	00	00	00	00	9.7	19
2	13.3	26	13.8	27	18.9	37
3	20.4	40	17.9	35	16.8	33
4	50.5	99	44.4	87	14.8	29
5	8.7	17	9.7	19	15.3	30
6 and more	4.5	9	7.6	15	24.5	48
Up to God	2.6	5	6.6	13	-	-
Total N	100	196	100	196	100	196

The percentage distribution of women regarding their ideal, desired and total number of live children is given in Table 3.50 per cent of the sample women said that they regarded four children as appropriate for the families like theirs, 20 per cent said three children, and 13 per cent of the sample women still considered five or more children as the ideal number of children for a family like theirs. Only 13 per cent considered two children as the ideal. This may be due to the family planning messages by the mass media as I noted before. Only 2.6 per cent of women said that it was entirely up to God, which was perhaps less than might be expected in a society like Pakistan.

In the survey sample the largest number of women, i.e. 44.4 per cent, would have wanted to have four children (Table-3) if they could have started their family anew. This is a larger desired family size than in Western societies, but is significantly lower than achieved family size. It is clear that the wish to have four children primarily stemmed from the fact that this maximised their chance of having children of both sexes which was mentioned by some respondents as an argument for desiring four children. Most of the women wanted to have a mixture of boys and girls rather than all boys or all girls. Kishwar, who is 44, a mother of seven sons, and lives in a middle income group area, put the point like this:

"If someone is lucky enough to have children of both sexes then four is the ideal number of children" (Res.No.78)

Iqbal, aged 43, the only sister of five brothers, whose husband also had only one sister, had one daughter and three sons at the time of interview. She emphasised the importance of having both boys and girls:

"I would prefer to have at least two boys and two girls. I think I would not have minded having even six or seven to achieve this. Because I personally think that what sisters can share with each other they cannot share with their brothers or vice versa. You know I had five brothers and even then I felt like an only child. My brothers used to play and talk with each other, and though they cared about me, I still always felt lonely. I think that a girl should have a sister and a boy should have a brother. If someone is lucky enough

to have two boys and two girls then four are the ideal number of children" (Res. No.145).

Although a norm of large families by Western standard countries to prevail in Pakistan, a slight fall is exhibited in the ideal and desired family sizes as mentioned above. Table-3 shows that, although 24.5 per cent women had 6 or more children only 4.5 per cent said that this was appropriate for a family like them, and only 7.6 percent said that they would have 6 or more children if they started again.

Among the sample women, no one considered having only one child as the ideal or desired family size. Having only one child is considered unfortunate because people believe an only child is sure to be lonely or spoiled. These views are closer to those which were mentioned by Busfield and Paddon (1977:145) in a study of England about the disadvantages of only one child. As the whole society relies on the family system and on their immediate family i.e. parents, brothers and sisters, children are considered a source of protection and strength against bad times. Parents think that if they have only one child, after their death there will be no family with whom a child can share his/her worries and happiness and with whom he/she discuss the different matters of life (in a family crisis people in Pakistan rely more on their decides to have only one child intentionally he or she is considered selfish. At the same time some people believe that there is more likelihood that an only child will be spoiled compared to children in large families. As an only child he/she cannot learn how to share. Moreover, as parents are usually more attached to an only child, they are less likely to be strict towards the child and sometimes the child takes advantage of the parent's weakness and exploits them. Fear of a child's death is also one of the reasons for not wanting one child only.

### Ideal, Desired and Actual Family Sizes by Duration of Marriage

In the current study, as we would expect, women who were married in different periods exhibit differences in what they consider to be the ideal, and the desired number of children. Although it is difficult to separate from my data the generational effects from the impact of duration of marriage, because a great variation in the age at marriage, there is some indication that the traditional value placed upon a large family is gradually changing. Amongst the more recent marriage cohort, there is a slight tendency to report a lower ideal family size on average. As Table-4 shows, on average 3.7 children are considered idea, but there is a general decline in the mean number of children considered ideal from those who had been married in the 1960s/1970s (3.9 children) to those married in the last decade (3.6 children).

**Table-4** Mean Ideal, Desired and Actual Number of Children by Duration of Marriage

Variables	Duration of Marriage in Years						Total	
	2-9		10-19		20 & above		X	SD
	X	SD	X	SD	X	SD	X	SD
Ideal number of children	3.6 69	1.0	3.8 83	1.1	3.9 39	1.3	3.7 191	1.1
Desired number of children	3.4 69	0.9	4.0 80	1.2	4.3 36	1.3	3.8 183	1.2
Actual number of children	2.3 71	1.0	4.6 85	1.8	6.4 40	1.9	4.1 196	2.2

*Note: Number of respondent are given in parenthesis.*

On average the mean desired number of children for the sample women who gave specific responses are higher than the mean ideal number of children for families like theirs. Table-4 shows that women wanted to have 3.8 children on average. Duration of marriage has the same impact on desired number of children as on ideal family size. Woman who has been married for 20 years or more, desired 4.3 children on average while who had been married for less, (2-9 years), desired 3.4 children.

Table-4 also shows the mean number of living children of the sample women. It shows that the overall mean number of living children of the sample women was 4.1 children, which is higher than both the ideal (3.7) and the desired (3.8) number of children. As we would expect fertility increased with the duration of marriage. Women who had been married for between 2-9 years had 2.3 children on average which increased up to 4.6 children amongst those women who had been married 10-19 years, while women who had been married for more than twenty years had on average 6.4 living children. Except in the early years of marriage, the average actual number of children was higher than both the ideal and the desired number of children.

## Ideal and Desired Number of Children by Number of Living Children

As noted earlier, it is to be expected that women's view of an ideal family size may well depend on the stage she has reached in childbearing. Table-5 shows the effect of actual family size on their ideal and desired family sizes. It shows that the majority considered four children as ideal for families like theirs irrespective of the number of children the woman had at the time of the survey. Even amongst the women who had only one child at the time of interview, 52.6 per cent considered four children the ideal, and among those who had two children 36.1 per cent reported four children the ideal. For the desired family sizes, again the majority of the women wanted to have four children, two sons and two daughters. A few felt that two children are enough. Among those who desired two children 11.1 per cent had one child, 40.7 per cent had two and 48.2 per cent already had more than two children.

Table-5                      The Ideal and Desired Number of Children  
by Number of Living Children

Number of Living Children		Ideal Number of Children for "Families Like Yourself"				
		2	3	4	5+	Total
1	N	3	4	10	2	19
	Row%	15.8	21.1	52.6	10.5	9.9
	Column%	11.5	10.0	10.1	7.7	
2	N	9	11	13	3	36
	Row%	25	30.6	36.1	8.3	18.8
	Column%	34.6	27.5	13.1	11.5	
3	N	3	7	17	4	31
	Row%	9.7	22.6	54.8	12.9	16.2
	Column%	11.5	17.5	17.2	15.4	
4	N	2	5	19	1	27
	Row%	7.4	18.5	70.4	3.7	14.1
	Column%	7.7	12.5	19.2	3.8	
5	N	5	4	15	6	30
	Row%	16.7	13.3	50.0	20.0	15.7
	Column%	19.2	10.0	15.2	23.1	
6+	N	4	9	25	10	48
	Row%	8.3	18.8	52.1	20.8	25.1



Column%	15.4	22.5	25.3	38.5	
Total N	26	40	99	26	191
Column%	13.6	20.9	51.8	13.6	100
			<b>Desired Number of Children "If you could start again"</b>		
1 N	3	4	10	1	18
Row%	16.7	22.2	55.6	5.6	9.8
Column%	11.1	11.4	11.5	2.9	
2 N	11	14	9	1	35
Row%	31.4	40.0	25.7	2.9	19.1
Column%	40.7	40.0	25.7	2.9	
3 N	3	10	17	1	31
Row%	9.7	32.3	54.8	3.2	16.9
Column%	11.1	28.6	19.5	2.9	
4 N	2	3	18	4	27
Row%	7.4	11.1	66.7	14.8	14.8
Column%	7.4	8.6	20.7	11.8	
5 N	3	1	14	10	28
Row%	10.7	3.6	50.0	35.7	15.3
Column%	11.1	2.9	16.1	29.4	
6+ N	5	3	19	17	44
Row%	11.4	6.8	43.2	38.6	24.1
Column%	18.5	8.6	21.8	50.0	
Total N	27	35	87	34	183
Column %	14.8	19.1	47.5	18.6	100

Note: Table includes only those women who gave specific numerical responses.

Among the women who had one child at the time of the survey, 55.6 per cent wanted to have four children. The desire to have five or more children is lower among those women who had up to four children, but there was an obvious increase among the groups who already had five or more children though the majority of them wanted to have four children if they could start again.

## Husband's Desired Number of Children

A number of studies have suggested that men in developing countries prefer to have larger families than their wives. This is because, to an even greater extent than for women, children enhance men's status, provide help in family businesses, give support in old age and continue the family line etc. Renne (1993:334), in a study of the Ekiti Yoruba, found that men wanted more male children than women. Since men dominate and control many of the family affairs, their preferences concerning family size also affect women's reproductive preference and behaviour of their wives (1994:160).

As many women in Pakistan do not differentiate between sexual demands and the desire for children, they tend to think that their husbands want more children whenever they want to have sex. As some of the respondents in the present reported: "We cannot leave the house to avoid their sexual demands, and having children is a natural outcome of sex". Raano, a mother of five children, who avoided her husband by sharing the bedroom with her mother-in-law told me:

"When I used to have children, we had a happy married life but now I do not want any more and my husband is angry with me. He wants sex but he is against the use of any family planning method, though he is working in a family welfare centre. I told him I am not going to have any more so it is better not to have sex."

When I asked her how many children he wanted, she said:

"I never asked him, because he is still sexually active I think he wants more". (Res. No. 155)

Only women were interviewed in the present study, but specific questions were asked about their husbands. To find out whether they actually knew the number of children their husbands desired or whether they just presumed by their sexual behaviour, the data from the question "Have you talked to your husband about how many children he wants?" was used. 78.1 per cent of the women reported that they did, while as many as 21.9 percent they never talked about this matter. A further question was also asked about the husbands' desired number of children to those women who had talked to their husbands. Table-6 shows the husbands' desired number of children as reported by their wives. It shows that the largest group of the husbands, i.e. 31.4 per cent, also wanted four children and none wanted only one child. Fewer men than women wanted only two children; only 7.8 per cent of

the husbands wanted to have only two children and 10.5 per cent wanted at least two sons without considering the total number of children, while 20.9 per cent thought having children was not in their own hands and left the matter to God. The mean of the husbands' desired number of children was also calculated for those who gave numerical responses. It shows that the husbands desired 4.0 children on average while the mean desired number of children of the women was 3.8. This shows that men desired larger families than women, which, in turn, influences women's reproductive behaviour. This finding of the current study is quite similar to Isiugo-Abanihe's study in Nigeria in 1994.

Table-6 Husband's Desired Number of Children

Husband's desired number of children	%	N
2	7.8	12
3	15.0	23
4	31.4	48
5 and more	14.4	22
At least two sons	10.5	16
Up to God	20.9	32
Total	100	153

## Conclusion

The analysis of data for ideal and desired number of children reveal important information. It reflects the motivation of the respondents for future fertility behaviour. The data of this study shows that although women did not have a very clear preference for their desired or ideal family sizes, most considered around four children the ideal and desired number. However, men and women both give the same stress for having a son. On average, men want larger family than women. Given their dominant role in the family, men's reproductive motivations are expected to affect the reproductive behaviour of their wives.

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# The Distance Education Programme of the National Teachers' Institute in Nigeria: An Exploratory Study

By

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## Abstract

This paper describes the distance education programme of the National Teachers' Institute. It even assesses the overall effectiveness of the programme through the identification of major problems and strengths. The subjects were randomly selected from study centres in Benin City and comprised 200 students, 20 Instructors and 30 primary school headmasters. A questionnaire was designed for each group of respondents. The information collected were analysed using percent ages. The results indicated that there was consensus between students and Instructors that programme is worthwhile, comparable with conventional programmes, environment is conducive and study texts were adequate. The major implementation problem identified was the habit of cheating at examinations. The products of the programme were of good performance and the execution of those on the programme was seen to have improved since enrolment on it. Based on the results, it was recommended among others that the implementation of continuous assessment as part of this programme should be closely examined. Supervision of the students and teachers was also recommended to improve product quality of the programme.

## Introduction

Distance education is sometimes erroneously taken to be synonymous with terms like external study, correspondence education, home study, independent study, open study among others etc; etc. None of these terms does adequately describe what is involved in distance education. According to Keegan (1986) distance education involves a separation between learner and teacher. It is more than a teaching method and involves the use of technical media. It also involves the opportunity for two-way communication between the learners and the teachers.

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The origin of distance education in Nigeria may be traced to the establishment of correspondence education that some Nigerians benefited from as early as the 1920s. At the time of independence, there was a proliferation of correspondence colleges. The correspondence courses have not been proved to be much successful because of problems associated with the postal system. The consequence is that drop-out rate was high and performance of those who completed their studies leaves much to be desired.

A bold step in distance education in Nigeria was the setting up of the National Open University which was, however, abolished before it started full implementation of her programmes. Despite this, distance education continues to enjoy a prestigious place in Nigeria. According to Omolewa (1982), distance education is seen as an answer to an existing injustice in the distribution of educational opportunities. The people who normally benefit from distance education are those who are educationally deprived one and even those who are unable to attend existing institutions because of family, financial, or occupational reasons. Even though part-time programmes, organised during evenings, holidays, and week-ends, are important in realising the educational goals, distance education still plays a vital role in educational endeavours in Nigeria.

Nigerian universities at Zaria, Lagos, Ibadan and Abuja have taken keen interest in distance education. These distance education programmes prepare the pupils for degree programmes in the discipline of Education, Business Administration, Accounting and the Humanities. The National Teachers' Institute is an institution set-up by the Government to run specific distance education programmes. This paper describes the distance education programme at the National Teachers' Institute (NTI) in Nigeria. It also assesses the overall effectiveness of the programme.

### The National Teachers' Institute

The antecedent to the National Teachers' Institute can be traced to the launching and implementation of the Universal Primary Education in 1976 which was announced in 1974. Fafunwa (1982) indicated that to meet the deadline that panic measures had to be taken which included appointment of auxiliary teachers, construction of class rooms, setting up of new teacher training institutions among others. The auxiliary teachers needed to be trained without necessarily dislocating the school system. Thus, the Federal Government of Nigeria established the National Teachers' Institute. This is a non-conventional institute empowered to train teachers through the Distance Learning System (DLS). The legal backing of

the institute was Decree Number 7 of 1978 and the institute was "charged with the duty of providing courses of instruction leading to the development, upgrading and certification of teachers as specified in relevant syllabus using distance education techniques" (NTI, 1989).

The objectives of the Institute as contained in the Institute's Handbook include the training and upgrading of all qualified grade II teachers to Nigerian Certificate in Education (NCE) level; provision of basic background for those teachers who may wish to pursue studies at higher levels. The Institute is also expected to produce teachers for the successful implementation of the National Policy on Education. Presently, the Institute prepares candidates for the Teachers grade II certificate as well as organises the Teachers grade II certificate examination. In addition it runs the Nigerian Certificate in Education (NCE) by DLS.

The implementation of the programme is carried out through field and study centres in the states and Abuja, the Federal Capital. The course materials are in the form of well sequenced and structured self-contained instructional books. The books are supplemented by face- to-face contact session with instructors. The contact sessions feature "lectures, practicals for the students concerned, tutorials for all students answering students' questions and marking their assignments" (NTI, 1989). These contact sessions normally hold on week-ends and during school vacations.

The programme is organized in four cycles (years). The courses are organised in modules. There are 50 modules for primary education studies, 4 modules for the use of English and communication skills and 36 modules for education. In addition, we have 36 modules for teaching subject. Practical teaching is also organised as part of the NCE programme. It is expected that the minimum period required to complete the programme is four years. The primary education studies consist of language Arts, Primary Mathematics, Primary Science, Primary Social Studies, Primary Physical and Health Education, and Primary Cultural and Creative Arts. It is compulsory for all students to offer primary education studies. This is because most primary school teachers in Nigeria normally teach all the subjects. The available teaching subjects from which teachers are expected to select are English, Mathematics, Integrated Science, Social Studies, Physical and Health Education and Cultural and Creative Arts. The evaluation in the programme is through continuous assessment and examinations.



For the purpose of administration, there are field centres in each state. The field centres are in charge of registration and documentation of students, identification and supervision of study centres and recommendation of supervisors and course tutors. The study centres are place where tutors meet with their students, and it is under the jurisdiction of a supervisor. The course tutors are saddled with the responsibility of guiding the students on how study materials can be used and they do real teaching as the need arises. They mark assignments contained in the study materials that students have attempted.

## Evaluation of Questions

This study attempted to find out the effectiveness of the NTI distance learning programme. The approach adopted was global as it was designed to explore major problems and strengths. Subsequent evaluations can then examine in greater details the problems identified. In this way the programme Implementation can be properly directed towards attainment of programme goals and objectives.

In particular the following questions were answered:

- 1) What are the characteristics of the students and the qualification of the instructors?
- 2) What is the proportion of students and instructors?
- 3) Who indicated that the programme was worthy, the texts were adequate and the learning environment was conducive?
- 4) What is the major implementation problem identified by students and instructors?
- 5) What is the distribution of the programme's products in the schools?
- 6) What the headmasters do in the schools while teaching products of the programme, and say about the quality of the products?

## Methodology

As indicated earlier, this study is a preliminary one and based on a survey technique. The subjects for the study were selected from study centres in Benin

City. The subjects were made up of registered students on the NTI programme, their instructors, and headmasters of primary schools. On the whole, 200 students, 20 instructors and 30 primary school headmasters were randomly selected for this study.

Three types of questionnaires, one for each category of respondents, were constructed for this study. The students' questionnaire asked for such information as sex, age range, entry qualification, present cycle and teaching subject. In addition, it asked for the worthiness of programme, comparability with conventional programmes, adequacy of texts, availability of guidance services and conduciveness of learning environment. It finally asked about major problem in programme implementation and the applicability of creative testing strategies. The teachers' questionnaire asked for information about their preparation in addition to aspects of programme covered by student's questionnaire.

The headmasters' questionnaire solicited for information like sex, highest educational qualification, number of NTI graduates teaching in school and number of teachers currently on NTI programme. It also asked for overall assessment of the graduates in terms of their performance. The questionnaires were administered by a team of three graduate students. Analyses were carried out using simple percentages.

## Results and Discussion

The results are presented according to the research question.

### Instructors and Students

One hundred and seventy-four of the students (87%) were females and the remaining twenty-six (13%) were males. The average age of the respondents was 28.2 years. The modal entry qualification was the Teachers grade II Certificate with a percentage of 79, while the Association Certificate in Education had a percentage of twenty-one. With respect to cycles, we had 68 students in cycle one, 60 in cycle four, 26 in cycle two and 22 in cycle three. The remaining students did not indicate their cycle. More than 60% of the students were in the social studies option. Mathematics and integrated science had the least number of students (3% and 5% respectively).

Seventy one percent of the instructors were males. The modal age of the instructors was 36-40 years. Fifty percent of the Instructors hold the Bachelor of

Education degree. The remaining percentage represents those instructors who did not indicate their qualifications. All the instructors hold teaching qualifications. Thirty- six percent of the instructors teach subjects other than their area of specialisation.

### Programme Quality

Table I contains the percentages of students and instructors and even responses about some aspect of programme quality. From the table, it is found that 90% of students indicated that the programme was worthy as against 95% of instructors. Ninety-two percent of students indicated that the programme was comparable with conventional programmes as against 85% of instructors. In all

Table-I

Frequency Distribution of Responses of Students and Instructors about Aspects of Programme

Aspects of Programme	Students		Instructors	
	Number	Percent	Number	Percent
Programme worthiness	180	90	19	95
Comparable with Conventional Programmes	184	92	17	85
Environment conducive	160	80	18	90
Guidance services available	120	60	6	30
Texts adequate	152	76	20	100
Enough practical skills taught	122	61	13	65
Length of programme adequate	122	61	20	100

cases, except in the case of availability of guidance services, the percentage of students and instructors who rated the aspects considered favourably was quite high. Even though this is the case, the results must be taken with some caution. First and foremost, the students may not be able to effectively assess worthiness of a programme, comparability with conventional programmes, and provision of enough practical skills. It would not be expected that one can buy something that does not seem to have value. The students responses, therefore, can not be expected to be different from what they were.

In this programme even though all the instructors are graduates, they can not be expected to give a better assessment than they did. This is because they may never have taught in other conventional programmes. To this extent, their comparison with conventional programmes should be taken with some qualification. The scope and depth of coverage assessment can be relied upon as they have the syllabus for the programme. It is, however, worrying that though students agreed that guidance services are available yet the instructors do not seem to agree. This is so as one of the responsibilities of instructors is to provide guidance services. If they are not aware, one wonders how these services can be rendered. This issue should be considered seriously as teachers and instructors are important factors in school programmes and no educational system can rise above the quality of its teachers (National Policy on Education, 1981).

### Major Implementation Problem

Earlier evaluative studies of programmes at this level indicated that people have vehemently criticised them on many grounds, such as the quality of their student intakes, academic content covered and the fact that contact with instructors was limited. Because of non-residential nature of the programme, it was feared that students may not give the required attention to it. Even though these problems were still highlighted in this study, a major implementation problem was that of cheating at examinations. The students (60%) indicated that they bring extraneous materials to the examination hall. This was in line with the opinion of the instructors as 86 percent of them emphasized that cheating was rampant. The reason for this sordid affair was due to non-reliance on personal ability which is because of poor preparation. Informal observation of the programme environment showed that secondary schools were the study centres. Because of the large number of students as compared to classroom spaces, the students are normally closely seated. This provides opportunity for cheating behaviour. An implication of this is that continuous assessment which is part of the overall course assessment

has not actually served its purpose. This means that systematic and focussed feedback during the teaching- learning process may not have been provided.

As a way out of the cheating problem, 43% of the instructors supported the use of open book examination as against 30% of the students. It does appear that the position of students and instructors is that open book examinations should not be used. This situation is understandable when one realises the quality of these students. An examination shows that most previous questions require recall of information. Few questions for any test application level of cognition and other more complex levels. If open book examinations are used, then the examination would be tantamount to giving students an opportunity to transfer information from their study texts.

### Distribution of Programme Products in Schools

Each of the schools sampled had less than six NTI/DLS graduate teachers. This is small compared to about 40 teachers on the average in the schools sampled. The number of students teachers in the schools sampled was equally small. This situation is understandable. Since the Government policy is that NCE should be the minimum qualification for teaching in Primary Schools, many Colleges of Education across the country mounted NCE programmes. As at the time this study was conducted, at least 8 such programmes were located within and in contiguous states to where this study was carried out. This afforded the clientele greater latitude of choice of institutions.

One have expected that the proximity of the study centres would have motivated more teachers to enrol on the NTI programme. The duration of four years and the fact that the programme is spread out throughout the whole year could be discouraging. Other intensive programmes spread over three or two years could have been preferred by the students. One thing that a majority of school teachers did not like was that the programme was tagged a primary education one. The teachers saw this as restrictive and this could have led to the low popularity of the programme.

### Quality of Products as Perceived by headmasters

Since this programme was an in-service, on the job one, the quality of the products was looked at from two dimensions. These are the quality of those student teachers still on the programme and that of those who have graduated. On the performance of graduates, 87% of the headmasters saw it as being improved.

In the same vein 67% saw the performance of those teachers still on the programme as having improved since enrollment in it.

Further information on why the improvement in performance could not be reliably obtained. This was because only thirteen headmasters provided relevant and consistent information. Out of this number, 10 headmas ters attributed the improved performance to the programme, while the remaining saw the programme products as lacking relevant knowledge. This should be a cause for worry. Seventy percent of the headmasters, however, saw the quality of the products as comparable to products of regular products.

These evaluative statements about quality of products should be of concern to the organisers of programmes like this. If it is actually true that performance of the products is not encouraging, then the headmasters are to be partially blamed for abdicating their supervisory function. Teachers are seen as developing professionals and this programme is expected to help in this endeavour. The fact that the group of headmasters see the programme as equally good as conventional programme has implication for teacher's retraining and improvement.

## Conclusion

As indicated in the earlier section of this paper, this study was designed to identify other areas which future studies could elaborately examine. Within the limits of this study, therefore, certain conclusions can be drawn.

The instructors in this programme were of adequate quality except that some of them taught courses for which they are not professionally qualified. It is, therefore, recommended that all programme organisers, should select instructors with requisite qualifications and experience. In this way, the instructors apart from possessing the requisite knowledge, would be aware of the support services available to the students.

The study centres were conducive for the programme except that it created opportunities for students to be involved in cheating at examinations. As implication of this is that the examinations should be properly organised. In actual fact, Continuous Assessment was expected to minimise this severe situation. The fact that it still assumed a big dimension, requires that the implementation of continuous assessment as part of this programme may need to be closely examined.

It can also be concluded from this study that the quality of the products are of comparable nature with similar programmes. In addition, the performance of the teachers was not highly rated. Thus, supervision should be emphasized. This should be different from 'snooperv ision' which Hunter (1988) sees as supervision which lacks the diagnostic-prescriptive aspect of coaching of teachers to remediate or stretch performance.

Lastly, both instructors and students indicated that different aspects of the programme were adequate. It was only on the aspect of availability of guidance services that instructors and students did not agree. This points to the fact that the services may not be actually available or that the instructors may not be aware of their availability. Either way has implications. One needs to examine whether the services are really available. If they are, then it may be necessary to organise programmes for instructors to expose them to what is available and how they can be utilised. Should the services not be available the programme organiser, NTI, should put in place of guidance services to assist students through the programme with little stress.

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# Language Effect on Teaching Learning Science

By

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## Introduction

Teaching and learning in any discipline take place through the medium of instruction (language). It is a fact which needs no emphasis. The research on which this paper is based attempts to measure the dimensions of the linguistic (vocabulary) problems associated with the transmission of science (physics) in secondary education. The significance of the results obtained is not fully apparent until the method of obtaining them is fully understood. The first part of this paper is, therefore, concerned with the design of the research.

## Perspective

My interest in science language (Physics) stemmed from the work of Gardner at Monash when he did a language study in preparation for the production of the Australian Science Education Project (ASEP) materials. He set out to examine the accessibility of words to students at various levels in secondary schools and to do this he assembled tests of commonly used words in science. Each word was tested in a single context and a measure was made of "its success" with students. In the present study, the researcher was more interested in seeing what effect the context had upon the accessibility of words because it was convinced that a word which might be understandable in normal parlance might not be so when it moved into a scientific context.

The early work had indicated that the problems of word as but with common words which changed subtly as they moved into science. To test these ideas more was the purpose of this research study.

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## Research Design

It had narrowed down Gardener's comprehensive list of about 100 words which specially needed care and attention. For each of these four questions were written to put each word in four different contexts.

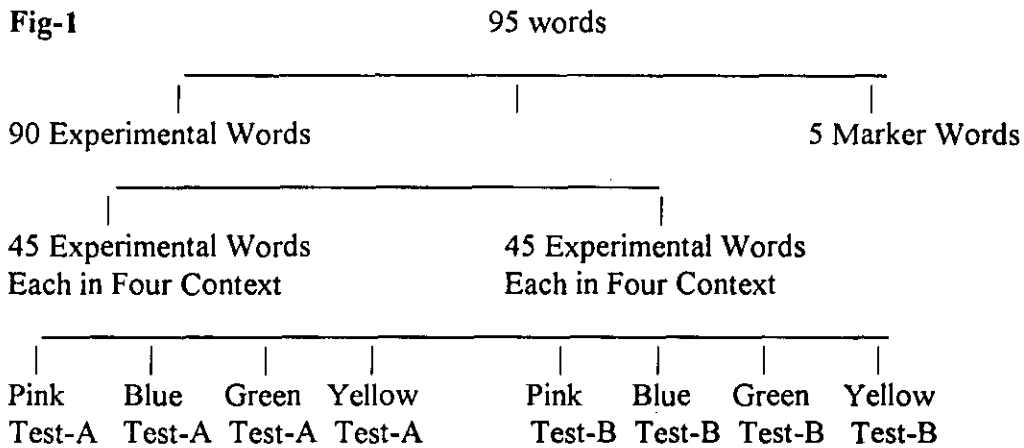
- i) No context at all, that is by offering four possible synonyms.
- ii) Offering the word in four every day situations only one of which was correct.
- iii) Offering the word in four alternative science statements.
- iv) Offering the word in four alternative non science statements.

Examples of these four contextual situations are set out on the following pages.

To keep the tests short, it was decided to ask each student to respond to only 50 questions. As there were 95 words to be tested, yielding approaching 400 questions altogether, each test would contain some of the words and each word would only be tested in one of the four contexts. The success of experiment would, therefore, depend upon how well the sampling of the students was done to ensure that the groups were of comparable ability.

As a check on this sampling, five words were used in exactly the same contextual form in all of the tests. These "*marker questions*" would enable us to monitor the quality of our sampling Fig-1, shows schematically how the experiment was added the five "*marker words*" to make eight tests of 50 questions. The contexts were scrambled in each test so that all type of contexts were represented in all the tests.

Fig-1



(i) **One Word Synonym Without Context**

Partial can mean:

- (a) Small (b) Whole (c) Large (d) Incomplete

(ii) **The Word Appears in Four Everyday Situations Only One Of Which Is Correct**

Which sentence uses the word Converge correctly?

- a) The builder gave an estimate of the cost to converge the small bedroom into a bath room.
- b) The officers discussed how the troops would converge on the town.
- c) The math home work was to learn the theorem and its converge.
- d) As all of them were interested in fishing, the guests found it easy to converge on this subject over their meal.

(iii) **The Word Appears in a Science Context Stem**

The two chemicals in an electro physics experiment, seemed to combine in a spontaneous reaction. This mean that the reaction:

- (a) was very quick (b) was explosive (c) once started increased vigorously  
(d) happened by itself

(iv) **The Word Appears in a Non-Science Context Stem.**  
The birds' song was Audible. This means it was:

- (a) very beautiful (b) a long way off (c) able to be heard  
(d) made while flying

### Sample

The sample size was approximately 3000 students drawn from schools and colleges across Scotland U.K. The group ranged in age from 11+ to 18+. About 600 students at each age level attempted each of the tests.

### Results

The result of two of the "markers questions", testing the words 'repel' and 'average' are shown well with in experimental error. There was a remarkable stability in the results in both easy and difficult questions.

#### Testing the Word "Repel"

% Of Students Getting The Correct Response

<u>Age/Year</u>	<u>Pink Test</u>	<u>Green Test</u>	<u>Blue Test</u>	<u>Yellow Test</u>
11	51	54	55	52
12	55	56	61	61
13	66	67	65	64
14	74	68	75	71
15	98	98	98	93

#### Testing the Word "Average"

% Of Students Getting The Correct Response

<u>Age/Year</u>	<u>Pink Test</u>	<u>Green Test</u>	<u>Blue Test</u>	<u>Yellow Test</u>
11	90	92	89	89
12	92	94	95	91
13	95	93	95	91
14	97	97	96	94
15	98	98	98	93

We could, therefore, be reasonably confident that any patterns we observed in the results of the "experimental words" would be caused by context changes and not by sampling error.

One example of an "experimental word" will suffice mean time to show how context affected performance. The result obtained for the word "displaced" tested in four different contexts, is given here for comparison with the "Mark Words."

### Testing the Word "Displaced"

#### % Of Students Getting The Correct Response

<u>Age/Year</u>	<u>Pink Test</u>	<u>Green Test</u>	<u>Blue Test</u>	<u>Yellow Test</u>
11	43	56	24	77
12	52	58	27	87
13	51	67	33	90
14	58	76	42	95
15	63	78	62	98

### General Pattern in the Results

Four clear patterns emerged from this work.

- a) Students lacked precision in their use of words as they moved from content to context. Words which could be handled in a subject-specific situation.
- b) Students easily confused by 'sound alike' and 'look alike' words.
- c) In a significant number of cases, students chose meanings "exactly opposite" to the accepted meaning.
- d) There was an improvement in performance with age, of course, this could have been caused as much by self selection as increasing maturity. The less able student may well have given up science in the earlier years of schooling.

Let us look at some examples of each of these patterns in actual questions responses.

It has to be admitted that, since all of our questions were in multiple choice format to allow for easy administration across the country, the destructors could have wrong ideas into the mind of the students. However, we tried to allow for this by approaching the problem in a different and open-ended way for a sub sample of our words. This will be discussed later.

### 1. Lack of Precision

As examples of the first of the general patterns that emerged, consider the following results for one of the questions testing the word 'simultaneous'. The values in the table are the percentages of students in a year group giving the particular response, i.e. the facility values. Two experiments were done and their endings were "simultaneous". This means that the experiments:

- (a) had the same results
- (b) ended one after the other
- (c) finished at the same time
- (c) had result which supported each other.

### Result

<u>Age/Year</u>	<u>Response-A</u>	<u>Response-B</u>	<u>Response-C</u>	<u>Response-D</u>
11	12	39	29	16
12	09	40	38	10
13	08	45	38	07
14	04	37	52	05
15	05	30	60	03
16	01	17	81	01
17	05	04	91	00

The strongest responses are those of "ended one after the other" and "finished at the same time". The former is taken to be correct by most students up to third year (Age 13 years) and even at sixth year (16 year age), nearly 20% think it is correct. In normal speech the two meanings are so close together that they can slide into each other and glossed over. In a science context, however, only one will do.

The two chemicals seemed to combine in a "Spontaneous" reaction. This means, that the reaction.

- (a) was very quick
- (b) was explosive
- (c) once started vigorously
- (d) happened by it self

## Result

<u>Age/Year</u>	<u>Response-A</u>	<u>Response-B</u>	<u>Response-C</u>	<u>Response-D</u>
11	33	13	28	26
12	33	11	23	33
13	38	07	26	27
14	35	07	20	38
15	33	10	16	42
16	31	04	09	54
17	33	00	03	64

The responses "very quick", once started increased vigorously and happened by itself are almost equally strong at first year (11 years age). Although the second of these fades with increasing age, the "very quick" response persists at an almost constant value at 33% through out. It is little wonder that physicists at tertiary level, a severe problem in teaching thermodynamics when the idea of speed overshadows the correct meaning of spontaneous. In normal parlance spontaneous implies doing something of *one's own accord* and *right way*.

## 2. Sound and Look Alike

The second pattern was words that look or sound alike. In this example the words *converge* is being tested.

Which sentence uses the word *converge* correctly.

- a) The builder gave an estimate of the cost to converge the small bedroom in to bathroom.
- b) The officers discussed how the troop would converge on the town.
- c) The math home work was to learn the theorem and its converge.

- d) As all of them were interested in hi-fyi the guest found it easy to converge on this subject over their meal.

## Result

<u>Age/Year</u>	<u>Response-A</u>	<u>Response-B</u>	<u>Response-C</u>	<u>Response-D</u>
11	27	26	15	29
12	23	36	13	26
13	22	40	13	23
14	15	54	08	22
15	11	75	04	10
16	12	86	*01	10
17	01	87	06	06

The word converge is heavily confused with the word *convert*. In the same way, consistent is confused with "constituent", "efficient" is easily mixed with "sufficient" and "deficient" and "edible" and "audible" are the almost interchangeable up to at least third year 13 years age.

### 3. Complete Opposite

The third pattern was concerned with complete opposite and illustrated by the responses of the word contract.

*Contract* can mean:

- (a) show up (b) be opposite (c) become larger (d) become smaller

## Result

<u>Age/Year</u>	<u>Response-A</u>	<u>Response-B</u>	<u>Response-C</u>	<u>Response-D</u>
11	19	09	36	31
12	12	10	30	47
13	11	07	29	50
14	08	06	24	62
15	04	04	18	73
16	03	02	05	90
17	-	01	01	98

Here is another example:

Which statement explains the meaning of the word “abundant” in the sentence. “There was an abundant supply of splints for the class to us”

- a) there was shortage of splints
- b) the splints were not suitable
- c) no splint were available
- d) the supply of splints was just enough
- e) there were plenty of splints

## Result

<u>Age/Year</u>	<u>Response-A</u>	<u>Response-B</u>	<u>Response-C</u>	<u>Response-D</u>	<u>Response-E</u>
1-12	23	06	18	09	44
13-14	13	03	15	08	61
15-16	00	00	00	00	100

Up to fifth year (15 years age) more than 20% of students think that “contract” means “get larger”, and “abundant” means a “shortage”. In any lessons, and in science lessons in particular, this could be serious and even dangerous. In these three categories (a) Lack of precision (b) confusion of sound-alike and look-alike words, and (c) complete opposites, only few examples have been cited, but these problems are by no means rare.

A particularly worrying problem is exemplified by a word which in science has retained its original precise meaning but has evolved in normal speech.

The word volatile, meaning “easily turned into vapor” has come to mean “unstable” “excitable” even unreliable, when applied to people and situations. Young people hear of volatile money markets and volatile tempers. It is little wonder that students bring the word back into science with the meaning “unstable” “flammable” and “explosive”, all of which fit science nicely but are *Wrong*.

It would be easy to blame teachers of English for all of this, but that would be unfair. All teachers have a part of to play in the development of the language of their students, when words can be confused in any disciplines it is that teacher’s job to spell out the particular meaning in that situation.



#### 4. Word Association

As a check on some of the results we obtained by multiple choice items, we offered students words in an open-ended way, asking for their strongest association when the word was spoken, two are given below.

##### Stimulus: Audible

###### Students responses

- Car
- Eat
- Edible
- Good
- Eatable
- Inaudible
- Listen

The strongest association with “audible” for 16-years old was “car”. This puzzled me until the students told the *Audible* related to *Audi*, a make of car. This was followed by several manifestations of the confusion with “edible”. The seventh most popular choice had to be sought before anything to do with sound appeared.

##### Stimulus: Conception

###### Students response

- Reception
- Exception
- Concept
- Immaculate
- Our lady
- Baby

This word threw up all the look-alike and sound-alike word and also betrayed.

##### Connecting Words

Language is not just vocabulary. In all discipline it is the vehicle by which logical thought takes place. Gardener (1) did some elegant work to investigate the facility which mid-teenagers had with logical connecting language. The metal po-

tassium is kept in oil because it explodes when exposed to the air. For the same reason. (b) the oil stops the potassium from meeting any air (38%) (d) the metal sodium is kept in oil (44%). In this example the connecting phrase, "for the same reason" is being used and tested. Only 44% of the sample used it correctly. The statement (b) is correct chemically but does not follow logically from the stem.

Iron rusts more quickly in hot weather. Therefore:

- (a) iron which is painted rusts more slowly (18%)
- (c) air and water are necessary for iron to rust (18%)
- (d) ships rusts more slowly in the antarctic than in the tropics (53%)

This second example is testing "therefore" (d) is the logical consequence of the stem followed by "therefore" (a) and (c) are again correct statements but not logical consequences of the stem. In this language weakness is prevalent, it makes nonsense of much we are purporting to do in terms of examining and teaching.

## Conclusion

It is very easy to teach and examine in a subject jargonize which is some times justified by suggesting that subject specialists speak that way. The given examples have been drawn from science, but the problem is by means limited to the sciences. Every subject has its own language with its own words for its apparatus its methods and its materials, but why must we complicate this by adding another layer of linguistic from which adds nothing to the subject and very often actually obscures the subject? It is worth pausing to compare the language with which the student is familiar and that used in books and exam papers, particularly in science subjects.

## Normal Language

- *The origin and the destination are completely clear.*
- *Pronouns such as I, you, and we are used.*
- *Active voice and finite verbs are used*
- *Sentences are short*
- *Concept density usually low.*

## Formal Language

- *The origin and destination are treated as important.*

- *The language is impersonal.*
- *Passive voice and non finite verbs are used.*
- *Sentences tend to be long.*
- *Concept density often high.*

What do we hope to gain by couching our particular subjects in such a language? Why place an extra barrier in front of our students? Most subjects are difficult enough without wrapping them up like this and what is more encouraging our students to learn this pompous language too. It is unforgivable if a student is prevented from showing us what he or she can do by making the question comprehensible through our language. If a student is reconstructing his knowledge from what we give him and from what he already has, language must play a critical part in this. If a word we use is familiar to a student, but his meaning and ours differs, we are unlikely to generate the learning we want. We must be sure of our vocabulary and the students perception of it.

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## News and Views

By

**Ataf Hussain Memon\***

The nation celebrated 50th anniversary of its independence and the country is to enter into new millenium. In fact the celebrity makes us realize what we have failed to achieve which we should have achieved long ago.

Every brain is a field where nature shows the seeds of thought and the crop depends upon soil. But AIOU has made it possible by the means of distance education to obtain optimum yield from all kinds of soil. By the grace of Almighty Allah, AIOU is in better position than in the past. 1997 was emphasized with some eventful activities in Allama Iqbal Open University. A look at these activities will present more clear picture of what happened during this period.

**Dr. Anwar Hussain Siddiqui, the new Vice-Chancellor of AIOU**

President of Pakistan/Chancellor of Allama Iqbal Open University has appointed Dr. Anwar Hussain Siddiqui as Vice-Chancellor of AIOU.

Dr. Siddiqui is a well known personality. Before joining AIOU he held a number of prestigious posts, such as Vice-President of International Islamic University, Islamabad (1986 to January 1997); Director General, International Institute of Islamic Economics, International Islamic University, Islamabad; Director General, Federal Judicial Academy, Ministry of Law, Govt. of Pakistan, Islamabad (1992-1995); Director General, Shariah Academy, International Islamic University, Islamabad (1988-1992); Director Studies and Research, Pakistan Administrative Staff College, Lahore (1975-1982); Director, National Institute of Public Administration, Karachi (1973-74) and Professor/Chief Consultant, Institute of Administration, Ahmadu Bello University, Zairia, Nigeria (1982-1984).

Dr. Anwar Hussain Siddiqui brings excellent academic credentials to the post of Vice-Chancellor. He did his Ph.D in Public Administration from University

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\* The writer is working in Research & Evaluation Centre of AIOU.

of Southern California in 1966, MPA, IBA, from Karachi University (1961) and B.A (Hons) in Economics from Sindh University (1959).

Under the good administration and able leadership of Dr. Anwar Hussain Siddiqui, the University moves to a further constructive development.

### Tree Plantation

Allama Iqbal Open University made arrangement for tree plantation ceremony for Spring, 1997 at main campus. The Vice-Chancellor, Dr. Anwar Hussain Siddiqui inaugurated the ceremony.

All the heads of departments alongwith their staff participated and planted the lagistonia saplings around newly constructed blocks.

### New Dean of Faculty of Basic and Applied Sciences

Professor Dr. Perveen Liaquat took charge as Dean, Faculty of Basic and Applied Sciences, AIOU. She has been serving in AIOU for the last 15 years. She has made a significant contribution in introducing courses in applied sciences and programmes for health professionals at B.Sc and M.Sc levels.

### New Dean of Faculty of Social Sciences and Humanities

Dr. Muhammad Tufail Hashmi has been appointed as Dean, Faculty of Social Sciences and Humanities, Allama Iqbal Open University. He is a prominent scholar of Islamic Studies and Arabic language and literature.

### New Dean of Faculty of Education

Dr. Muhammad Rashid has been appointed as Dean, Faculty of Education, Allama Iqbal Open University. He is recognised as a noted educationist having vast experience in teaching profession.

### Earth Day

A function was held at AIOU campus to celebrate Earth Day. The event was arranged in collaboration with the corporate Environmental Action Programme, QAU and Menal Corporation. Senator Raja Auangzeb, Chief Political

Coordinator to the Prime Minister and an active environmentalist, was the Chief Guest on the occasion.

The seminar gave impetus to the on going movement to provide a platform to people in their endeavours to save earth. The speakers were quite articulate in highlighting the significance of clean air and water. One of them emphasised the need to preempt the misuse of drinking water as only 3% of the total reservoir of water on earth is usable. He advocated efforts to control air and noise pollution, deforestation, and depletion of the ozone layer. The speakers agreed that ecological degradation should not be seen as an isolated issue since it is directly related to the socio-economic conditions of a country.

An effort to save earth can start from our own houses. We can make a beginning by ensuring effective disposal of waste, and by refraining from the use of plastic bags. The ultimate aim of *Earth Day* is to launch a nation wide movement for environment protection.

### M.Sc Courses in Women Studies

Allama Iqbal Open University formally launched M.Sc Women's Studies Project on its campus. The main emphasis in Women Studies courses is to act as catalyst and highlight women's role in all aspects of life, and to bring an informative brochure about the programme which offers an M.Sc degree. A post graduate diploma and individual course and certificate in women's studies. Besides, including research in M.Sc on women related topics the programme of studies include wide ranging subjects as the psychology of "Women and Islam".

Dr. Anwar Hussain Siddiqui, Vice-Chancellor said that women in Pakistan are denied the rights given to them by Islam. Vice-Chancellor announced that the university will start Matric to Middle School Courses for Women in remote rural areas. Some 7,000 enrolments have been registered in the SSC programme.

Syeda Abida Hussain, Federal Minister for Food, Agriculture and Population Welfare, was all praise for the university's capacity, ability and out reach.

During the discussion, Minister interlinked the country's all encompassing development to the development of women. Women studies is very crucial because women bear the burden in our environment. She said that about 50 percent women participate in agriculture besides their men and thus contribute to the economy.

She emphasised that population should be controlled if the country has to make progress.

## Seminar On Iqbaliyat

The Department of Iqbaliyat, Allama Iqbal Open University organised a seminar on Iqbaliyat. Prominent scholars and senior officials from different parts of the country attended the workshop.

## PTV-2 to telecast AIOU Admission Programme

PTV-2 and STN telecasted introductory programme regarding the admission in Allama Iqbal Open University.

M.Phil Iqbaliyat, Islamiyat, Teacher Education, M.Sc Economics, M.Sc Pakistan Studies, M.A History, M.A Distance Education, M.Ed and B.Ed, Degree Level Admission in B.B.A; B.Com; B.A. (Librarianship) B.A (Computer Application Group and Communication) and F.A level like General Group, besides, this also some certificate level course offered.

## Mehfil-e-Mushayrah

Department of Pakistani Languages organised a *Mehfil-e-Mushayrah* for M.Phil Urdu students. The local writers, authors and journalist also attended the function.

## Construction of Mosque

A function was held to mark the construction of a beautiful mosque in University premises. The Vice-Chancellor inaugurated the function. All the university employees donated one-day salary for its construction.

## Flower Exhibition

Flower Exhibition was organised by the University Malies in front of IET. The Vice-Chancellor, Dr. Anwar Hussain Siddiqui awarded Merit Certificates to those Malis who got distinctive position in the National Flower Exhibition, organized by the Islamabad Horticultural Society.

## Visit of Bangladesh Open University Delegation (BOU)

A high level delegation from Bangladesh Open University (BOU) visited the AIOU. The delegation comprised the following: Prof. Dr. R.L. Sharif, Pro Vice-Chancellor, Md Zohurul Islam, Director Finance and Accounts, Prof. Dr. Mifizuddin Ahmad, Dean, Schools of Science and Technology, Md. Waliduzzaman, Controller of Examination of BOU and Md. Musharaf Hussain, Senior Assistant Secretary of Education of Bangladesh.

The delegation discussed with the Vice-Chancellor and other high officials of AIOU the matters of mutual interest with special reference to the promotion of education between the two countries.

Vice-Chancellor briefed the delegation about the nature of work done by the University. The delegation was highly impressed with the plans and achievements of AIOU for the improvement of literacy rate. The delegation visited the modern radio and t.v. studios at IET, which has been setup with a purpose to telecast the educational programme of the AIOU. They also visited Central Library and (SADERC) of the university.

Pro-Vice-Chancellor of BOU, Professor Dr. RL Sharif was interested to launch programmes of mass communication on the lines of the Allama Iqbal Open University. AIOU Vice-Chancellor Dr. Anwar H. Siddiqui presented shield of the University monogram to the delegation of BOU.

## Visit of Karachi University Students to AIOU

A group of forty students along with their professors, Faculty of Education, University of Karachi visited AIOU. The students went around the Modern Radio and T.V studios and Library. They were briefed about the nature of work of AIOU.

## Study Tour/Visits

A team of 20 army officers in service training including rank of Commandant (Brigadier), Chief Instructor (Colonel), Director Staff ( Lieutenant Colonels), Staff Officers (Majors) students officers from Army School of Logistics, Murree visited AIOU on 29 April, 1997.



The aim of the visit was to familiarize the students/officers with education facilities in AIOU. Team of the members also visited the radio and T.V. studios and Library of the AIOU.

### Visit of Students and Teachers to AIOU

A group of 32 students of Electronic and 2 teachers from Swedish Pakistani Institute of Technology, Gujrat, visited AIOU to observe the work done by this institution. They appreciated the increase of literacy in Pakistan through AIOU. The students also visited the Modern Radio and T.V studios, Library and AIOU Printing Press.

### Visit of Students and Teachers to AIOU

A group of 65 students from Govt. College of Education, Multan visited AIOU. They also visited the Radio and T.V studios and Librarty of AIOU.

### Training/Participation of the AIOU Employees Abroad

The following academic staff of AIOU visited different countries for training/seminars during January to June 1997:

- |  |   |   |
|--|---|---|
| 1. Mrs. Lubna Saif<br>Director<br>Faculty of Mass Education                                | Acu-Development fellowship<br>1996-97 offered by Griffith<br>University   | 20/1/97 to<br>01/6/97<br>Australia            |
| 2. Mr. Muhammad Yasin<br>Assistant Professor<br>Institute of Arabic and<br>Islamic Studies | Training of Course of Arabic<br>Menoscript ISEECO   | 3/5/97 to<br>15/5/97<br>Dubai                 |
| 3. Dr. Mrs. Mussarrat Anwar<br>Chairman<br>Deptt. of Teacher Education                     | Training Workshop for<br>capacity, training in<br>distance education for<br>Primary Teacher Train-<br>ing, UNESCO | 18/5/97 to<br>29/5/97<br>Dacca,<br>Bangladesh |

Training/Participation of the AIOU  
Employees within the country

<u>Sr. No.</u>	<u>Name and Designation</u>	<u>Subject and Duration</u>
1.	Mr. Zafar Ali Chaudhry PA to Dean, Faculty of Education	Course on Data Base Management at Computer Bureau, Islamabad. 8/1/97 to 30/1/97
2.	Mr. Shafiqur Rehman Assistant Registrar Institute of Educational Technology	8 Weeks Part-time Training Course, Secretariate Noting and Drafting under Step down (SDTP) 10/1/97 to 13/3/97
3.	Mr. Fazal Hussain Superintendent, Faculty of Basic and Applied Sciences	8 Weeks Part-time Training Course, Secretariate Noting and Drafting under Step down (SDTP) 10/1/97 to 13/3/97
4.	Mr. Farooq Qadir PS to Dean Faculty of Basic and Applied Sciences	2 weeks part-time course on duties and responsibilities of Executive/Private Secretary Personal Assistant, Workshop with the Senior Official of the Govt. and Autonomous bodies 8/4/97 to 22/4/97
5.	Miss Faiza Tabassum Lecturer, Deptt. of Math; Statistics and Computer Sciences	Civil Defence General Pakistan Ladies Course No.3 Islamabad. 2/6/97 to 14/6/97
6.	Miss Shehnaz Chaudhry Designer Institute of Educational Technology	Civil Defence General Pakistan Ladies Course No.3 Islamabad. 2/6/97 to 14/6/97

7. Miss Mamoon Yasmin  
Lecturer, Science Education

Civil Defence General  
Pakistan Ladies Course No.3  
Islamabad. 2/6/97 to 14/6/97

### Retirement

1. Dr. M. Arif Zia, Associate Professor, Faculty of Education retired from the University services w.e.f. 2/4/97.
2. Mr. Muhammad Din, Assistant Professor, Faculty of Education retired from his services w.e.f. 13/4/97.
3. Dr. Nazar Kamrani, Regional Director, AIOU, Regional Office Karachi, retired from his services on 30/6/97.

## **BOOK REVIEW**

A Comprehensive Dictionary for Children

**Bachchon Ki Lughat**

By Prof. Khaliq Ahmad Siddiqi,

Pages: 728; Price: 190/= (Paperback); 1995,

Published by Muqtadara Qaumi Zuban,

Sector H-8, Islamabad.

In the domain of literature, language and learning, the legitimacy of lexicography cannot be nullified. It is the main source through which the reader handles numerous problems, pertaining to word-lore, arising during the course of study. It is evidently due to work-book that any person either learned or novice has inevitably to get command on and accumulate a certain amount of working vocabulary i.e. substantial stock of words, that one can confidently and correctly use in one's writing and even in his discourse.

As such, dictionary occupies prestigious position not even in the realm of language and literature, but evidently and significantly in the field of education and teaching. At no stage the importance of word-building can be ignored. This art of etymology is a *must* for all and sundry.

In the history of Urdu language, the art of lexicography is not an unknown and imported one. A number of dictionaries have had been compiled in the past, and a few ones are still in the process of being prepared voluminously. But the pity pins us panically is the acute dearth of dictionary for children. It was only the great poet Ghalib who took initiative in this behalf as early in 1860s and compiled *Qadir Nama*, a poetic book giving Urdu meanings of Persian words commonly used in that era. But this very light and lean word-book vanished from the scene just like other lexicographic works done by our ancestral luminaries for the improvement of juvenile knowledge, i.e., *Khaliq Bari*, *Raziq Bari*, *Eizid Bari*, etc. Since then, there appears a flaw --- much foggy, foible and foisting.

It is heartening to hear that after a lapse of not less than a century, the National Language Authority has come forward and managed to publish a comprehensive dictionary for juvenile. Undoubtedly, it may be said to be the first word-book for which an ideal procedure has been adopted, that is, the approaching of each article with an open mind and a collection of examples large enough to be exhaustive.

Prof. Khaliq Ahmad Siddiqi, an eminent educationist, has painstakingly compiled this 728-page dictionary which ultimately and inevitably stands unique in Urdu, specially that of juvenile literature. This word-book is intended mainly for the students of class first to tenth, and contains approximately 10,000 entries. All the headwords are written in bold letters and being defined simply and clearly. They show the spelling of the words in visible bold-face calligraphy. Each and every sense of a word has been elaborated minutely.

The words chosen by the learned lexicographer for inclusion, are those most likely to be needed by the children during their age-range study. Accordingly, irregular and difficult words, phrases and idioms have been included while very easy and commonly known words are omitted.

This juvenile dictionary shows how words are spelled, what they mean, how to pronounce them correctly and how to use them the right way in one's own writing and negotiation. Even examples of usage are provided to help make meaning clearer. Thus, through reading the examples carefully, the students will greatly improve their knowledge of Urdu language and its use in accurate way.

Without any fear of nullification, it may be said that this dictionary has been extensively compiled to make it as accessible as possible to children and to reflect developments in the primary and secondary school curriculum. In the end, I would like to quote the wordings of Mr. Iftikhar Arif, Chairman, National Language Authority, which appears to be a remarkable comment on this work under review:

"This children dictionary is unique and first of its kind. Not even the students, but the teachers and the parents would be benefitted alike."

Reviewed by

Dr. Mahmudur Rahman  
Editor

## BOOK REVIEW

### FIRST BOOK ON HEALTH ECONOMICS

#### HEALTH ECONOMICS AND PLANNING IN PAKISTAN

By Fazli Hakim Khattak

Pages:252; Price: Rs.120/= (Paper back); 1996

Printed by Ad-Rays Publishers, Islamabad.

Health is a most gracious gift given by God to the human being. The very survival of man in the universe entirely depends upon the solid footing of health. Without this blessing of Almighty, the human creature cannot cope with the continuous hazards of NATURE. Even it would be unable to overcome the menace of changing climate without having a sound health.

It is an admitted fact that the nation cannot make any tangible progress unless the people are healthy and fit to contribute their best, both physically and mentally, towards the development of the country. This awareness is based upon the consciousness of the fact that every Pakistani has a right to good health, best medical facilities, proper treatment, immediate access to first-aid and after all a clean environment. Moreover, the citizens of Islamic Republic of Pakistan have to be provided effective, efficient, affordable and acceptable health services throughout the country. Efforts are required to deal with the health sector, including disease prevention, health promotion and state-owned health services at district and even *Tehsil* level.

To achieve all the targets most efficiently means a mechanism. Ironically, this very aspect of handling the medical hazards has not yet come in the form of health economics and planning in Pakistan. Merely to become physician, to subscribe to the Declaration of Alam Ata, to establish hospitals, to manufacture medical apparatus and to import drugs becomes futile if there is not a bit interaction between economics and medical approaches in the country. All such aforesaid measures prove to be punk if there doesn't exist any coordination between economists, hospitals and medical doctors regarding health related projects and allocation of funds in the budget for their respective projects and programmes. This very mechanism is called as Health Economics & Planning. Under its purview come the Economists, Medical Doctors, Health Administrators, Managers, Policy & Makers and Planners.

To introduce this very modern mechanism, a comprehensive book was required to be published. Lo and behold! The noted economist of the Frontier has come forward and skillfully filled the vacuum through his book under review. Having a series of degrees and diplomas acquired from Peshawar to Punjab, USA and England, this young and energetic author has logically proved that teaching and study of health economics and planning is absolutely essential for all concerned. To achieve the goal, he has dealt in length with the sophisticated subjects, such as financing health sectors, hospital system and its financing, economics of health facilities, drug abuse, its socio-economics, cost and effects and private health sector.

I am of the opinion that this very first book on a vital subject would become a guideline for all medical practitioners, administrators of hospitals, owners of private clinics and supervisors of NGOs. Keeping in view the vitality of the work, I would personally suggest Mr. Khattak to get it translated into Urdu and even in regional languages of Pakistan so as to acquaint all and sundry with the mechanism of health economics.

**Dr. Mahmudur Rahman**  
**Editor**

**DATA BANK  
STATISTICAL GLIMPSES OF  
ALLAMA IQBAL OPEN UNIVERSITY  
ISLAMABAD**

By

**Abdus Sattar Khan\***

**PROGRAMME/LEVEL-WISE SEMESTER-WISE AND GENDER-WISE COURSE ENROLMENT  
DURING THE YEAR 1996-97.**

S No	Programme/Level	No. of Courses	Autumn, 1996				Spring, 1997				1996-97			
			M	F	T		M	F	T		M	F	T	
1	Functional (Non Credit)	8	320	219	539	216	233	449		536	452	988		
2	Women's Education Matric	22	86	9908	9994	92	11433	11525		178	21341	21519		
3	Intermediate Courses	50	22347	17493	39840	22872	19445	42317		45219	36938	82157		
4	B.A/BBA/B.Com/B.Sc Courses	71	30741	11324	42065	30337	12606	42943		61078	23930	85008		
5	M.A (Educational Planning & Management)	11	332	115	447	414	161	575		746	276	1022		
6	M.Sc Pakistan Studies	13	1086	706	1792	409	263	672		1495	969	2464		
7	Master of Business Administration (MBA)	29	2136	346	2482	4378	809	5187		6514	1155	7669		
8	M.A Economics	12	1134	278	1412	338	103	441		1472	381	1853		
9	M.A History	4	439	139	578	178	60	238		617	199	816		
10	M.A Mass Communication	2	-	-	-	309	53	362		309	53	362		
11	M.A (TEFL)	4	69	55	124	70	54	124		139	109	248		
12	Professional Course Post Graduate Level	1	144	38	182	-	-	-		144	38	182		

\* Research and Evaluation Centre, Allama Iqbal Open University, Islamabad.



13	Post Graduate Diploma Certificate of Management	8	152	15	167	242	22	264	394	37	431
14	Diploma in Computer Application	8	1454	149	1603	4353	152	4705	6007	301	6308
15	Diploma in Computer Maintenance	8	17	-	17	56	-	56	73	-	73
16	Diploma (TEFL)	5	326	127	453	496	192	688	822	319	1141
17	M.Ed (Diploma in Special Education)	17	393	150	543	924	380	1304	1317	530	1847
18	B.Ed Courses	12	24101	16479	40380	15255	10441	25695	39356	26920	66276
19	Certificate in Teaching (CT)	11	34163	31664	65827	28487	27938	56425	62650	59602	122252
20	Primary Teacher Certificate (PTC)	9	1125	2110	3235	51972	62597	114569	53097	64707	117804
21	Primary Teacher's Orientation Course (PTOC) New	1	-	-	-	7907	4608	12515	7907	4608	12515
22	Arabic Teacher's Training Course (ATTC)	1	-	-	-	1101	1184	2285	1101	1184	2285
23	M.Phil Iqbaliat	4	53	24	77	46	19	65	99	43	142
24	M.Phil Islamiyat	4	49	3	52	56	-	56	105	3	108
25	M.Phil Urdu	4	51	39	90	50	21	71	101	60	161
26	M.Phil Education	12	176	59	235	241	69	310	417	128	545
	Total	331	120894	91440	212334	170999	152843	323842	291893	244283	536176

PROGRAMME/LEVEL-WISE NUMBER OF BOOKS  
PRINTED DURING 1996-97 (1-7-96 TO 30-6-97)

Sr.No.	Programme/Level	1996-97
1.	Functional Non-Credit	1006
2.	Women's Education (Matric)	13120
3.	Intermediate	89495
4.	BA/BBA/B.Com	186403
5.	MA (EPM)	7500
6.	MA (History)	12050
7.	MA (TEFL)	497
8.	Master of Business Administration (MBA)	10528
9.	M.Sc (Economics)	4963
10.	M.Sc (Pakistan Studies)	8334
11.	M.A (Mass Communication)	5000
12.	B.Ed	124980
13.	CT	131981
14.	PTC	149893
15.	New Primary Teacher Orientation Course (PTOC)	140505
16.	Arabic Teacher's Training Course (ATTC)	4998
17.	M Phil	1100
Total		892353

PROVINCE-WISE AND SEMESTER-WISE STATISTICS  
OF TUTORS FOR SPRING 1996 AND AUTUMN 1996 SEMESTER

Province	Semester Spring, 96	Semester Autumn, 96
NWFP	348	362
BALUCHISTAN	56	60
SINDH	527	536
PUNJAB	2110	2406
FEDERAL AREA (ISLAMABAD)	304	319
AZAD JAMMU & KASHMIR	181	192
NORTHERN AREA	115	120
Total	3641	3995

PROVINCE-WISE AND SEMESTER-WISE STATISTICS  
OF STUDY CENTRES FOR SPRING, 1996 AND AUTUMN, 1996  
SEMESTER

Province	Semester Spring, 96	Semester Autumn, 96
NWFP	92	89
BALUCHISTAN	10	10
SINDH	78	76
PUNJAB	160	155
FEDERAL AREA (ISLAMABAD)	6	6
AZAD JAMMU & KASHMIR	27	26
NORTHERN AREA	8	8
Total	381	370

RADIO/T.V PROGRAMMES PRESENTED IN  
AUTUMN, 96 AND SPRING, 97 SEMESTER

Programmes	Semester Autumn, 96	Semester Spring, 97	Total
Radio	170	130	300
T.V	92	60	152

RADIO/T. PRODUCTION AND AUDIO/VIDEO CASSETES SALE  
DURING JULY, 1996 TO JUNE, 1997

Titles	Quantity	
	July, 96 to Dec, 96	Jan, 97 to June, 97
Total TV Programme Production	2	2
Total Radio Broadcast Programme	26	36
Audio Non-Broadcast Programme	8	-
Video Non-Broadcast Programme	-	1
Total Sale Audio Cassette	370	410
Total Sale Video Cassette	27	35

STAFFING POSITION AS ON 31/12/97

	Academic Staff	Administrative & Others Staff	Region	Total
17 and above	89	79	23	191
16 and below	-	754	200	954
Total	89	833	223	1145

