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TO THE READER

Pakistan Journal of Distance Education is dedicated to the distance-learning system rapidly growing in Asia and the world over. The Journal welcomes studies, research and review papers dealing with past, present and future perspectives of distance education, with a view to awakening further interest in the newly growing discipline and opening new vistas of research.

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EDITORSHIP OF THE JOURNAL

Since the Journal's first issue in 1984, the editor has been Professor Ahmed Noor Khan, Director of the University's Research and Evaluation Centre. As founding editor, Dr Ahmed Noor brought to his task a long and scholarly experience in the field of education and its related social sciences. Distance education was at that time, particularly in developing countries, only just making its mark as a major force in adult education. To assist its further extension and application, there was the great need for authoritative Journals reporting on experimental projects, on innovative programmes and on their success and limitations.

Under Dr Noor's able editorship, the PJDE has been able to make a significant contribution to that need, publishing a wide variety of articles and statistical data, reporting the progress not only of its parent institution, but of other distance education systems and establishments both in the South Asia region and in other parts of the world.

Because of his retirement from his full-time post with the University, the Board has very reluctantly had to accept Dr Noor's resignation as Editor of the Journal. In doing so, however, it wishes to place on public record its sincere appreciation of the services rendered by him in its establishment and successful development. As an added mark of its appreciation, the Board has persuaded Dr Noor to accept the post of Honorary Associate Editor and the Journal will thus continue to benefit from his experience and guidance.

PAKISTAN JOURNAL OF DISTANCE EDUCATION RRAPPEARS

The publication of Pakistan Journal of Distance Education had to pass through very critical period of its survival since the beginning days of 1990. The Allama Iqbal Open University which had risen great heights of its glory till then, had to face with sudden dead lock for reasons beyond the control of the Editorial Board. The transitional period of two/three years had caused great suspense and uncertainty in the whole system. Deficit budgeting further escalated the problems. Major programmes and projects of the system were either shelved or came to a stand still. The Journal being a strong medium for popularising education from a distance in and outside the country could not save itself from the onslaughts of currents and anticurrents of those days.

With the untiring efforts of Dr. W. M. Zaki, the present Vice-Chancellor, after assuming the leadership role, rescued the falling system. AIOU is now fast regaining stability and development. With this renewed strength the Pakistan Journal of Distance Education is coming in prints once again.

The editorial board express its deep regrets for a long gap which was caused in its publication and put the readers in waiting for all these years.

The present issue which was given to the press at the end of 1989, is republished, added with more articles and updated information. We hope to resume our regular publcations after this issue comes out of the press.

Editor

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EDITORIAL

Distance Education: New Clients, New Needs

Since mid-seventies one of the most important developments was the evolution in several countries, of complementary education programmes involving adult learners. These programmes range from post-literacy to skill development and production oriented adult education. The need for educational services for adults is recognized and distance education is seen as an integral part of the overall educational system in the light of prevailing problems and educational needs.

The existence of "global education crisis" paved a smooth way for the distance education to enter into the arena by covering a variety of programmes outside the school. Thus distance education soon gained ground in educational circles as a potential antidote to the bottlenecks of formal education. Most educational researchers view distance education as a panacea though they assert that it should not be seen as a menacing competitor of the formal educational or as an expedient substitute until formal education can be adequately expanded.

Distance education approach is innovative and offers a swifter and more direct path to the democratization of education in the developing countries. Hence it is vitally necessary for such countries to adopt this system as it is only by these means that large majority of working people may have access to education without disturbing their working lives and earning capacity. A means to secure the basic human right of education for the common man, distance education is now busy in many countries fighting for its place alongside the rights to shelter, clean drinking water, clothing, freedom from political oppression and many other basic human rights. There is an enormous market that could be served by the technique of distance education demographic pattern and changes in the educational level of the adult population, changes in the birth rate are enlarging the proportion of the adult population. The level of education is increasing faster. This trend will continue to grow in the 21st century.

The higher a person's educational attainment, the greater his demand for further education. This growing demand is well-reflected in the enrolment trend of part-time

courses in various distance-teaching institutions. Educational services for the target groups are so diverse in maturity, background, life style and motivation by the same teaching mode that they inevitably constitute a complex problem.

The variety of Allama Iqbal Open University's clientele for example is wider than that of the other open universities. The learners range from subliterates to students at the degree level. UKOU initiated into BA courses and moved into the field of functional education. University Sains Malaysia's priorities for degree provisions and Ramkhambaeng Open University's priority for rural education present a big contrast.

In holding to the principle of life-long education, distance system aims at improving the quality of life of the masses, increase in the qualifications of working people, strives to expand the educational opportunities for diverse adult groups drawn to its fold from the rural and urban, male and female dwellers in far off snow clad mountains to remote rural deserts. The demand for education leading to formal degrees is growing stronger among the adults than among young people. The rate of return, therefore, on the investment in a university taking place among the adult learners mostly in the 21 to 29 age-group, and to a lesser degree in 30 to 39 age-group.

The educational need of distance learners is under a spell of change. The impact of scientific, technological, social and demographic change on the educational needs has never been felt so enormously as today at the close of the 20th century. Such an impact on employment, careers, rising educational level of people, the adults particularly, the changing role of women in developing nations, changing life style has been very deep and quick.

All these have created a need for delivering new educational opportunities through distance education.

One of the great diseases of adult education is to regard all 'adults' alike; all having the same needs and wants, the same life-span development, the same learning process. This is the great failure of the "basic human needs" approach to development. Such an approach overlooks the local, the specific because the local is the most important dimension and not the international.

The need that I see from the programmes, the distance-education institutions are engaged with, is simply this: How can we help to make the existing programmes more effective and satisfying to the needs of the growing demands of an adult population? How can we reduce the drop-out rate; how to increase the learning; how to overcome the barriers and harness the existing drives without necessarilty aiming at the total achievement of the objectives of distance education for any country.

If distance education is to secure basic right for education of the people who are new and whose needs are new, then it must be a means to assist people of all ages to meet their basic needs. Denial to people whatever they may want is oppression. Denial of education to people whether basic or functional is negation of human rights.

Dr Ahmed Noor Khan
Editor

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COMPARATIVE STUDY OF PRIVATE COSTS IN DISTANCE AND CONVENTIONAL EDUCATION IN INDIA — A CASE STUDY

by

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Introduction

Distance education is in existence for well over one and a half century. It has already occupied an indispensable place in the educational system at the global level. However, the germination of distance education in India took place in the early 1960s. Its growth in India has been at a very slow pace. In fact, it did not grow much till the mid-70s. It is only during the last ten years or so that it has come to occupy an important place. Even now it is being imparted mainly through postal correspondence.

For quite a long time, distance educational system has been opposed by the protagonists of conventional educational system. There is, however, a sea-change in their outlook now. Distance educational system is going to be popularised day by day. This is, infact, a historical necessity. Face-to-face education is as longer indispensable in the context of higher education. To 'earn while you learn' can be possible only in the distance educational system.

Distance education has a very vital role to play in meeting the challenge of the future in the context of number, time and finances. It is not only an academic and a forward-looking teaching-learing system, but also a non-formal democratic, flexible and economical one. It is as good or bad an academic discipline as the traditional system of education is. However, the 'fat intellectuals' and a certain section of the society are yet to reconcile with the pedagogic validity of distance education. In fact, distance

educational system is a better method of imparting education when it goes beyond the domain of traditional courses.

In a country like India, where the literacy rate is as low as 36 per cent, huge amount of funds are required to raise the literacy rate. The absolute number of illiterates is rather enormus. The situation on the higher education front is rather grim. In this context, India lags for behind than the countries like South Korea, Japan, Philippines, USA and USSR. Moreover, the demand for higher education is going to be higher and higher in future. Even a moderate estimate for 2000 A.D. indicates that the likely enrolment in higher education in India is expected to be doubled. Our existing institutions of higher learning will not be able to cope with this expected rise in demand for higher learning. At the same time, the financial constraints interms of our limited economic resources may not allow us to expand the existing institutions and opening up of new institutions to meet the ever increasing demand for higher learning. However, a democratic state like India is supposed to create educational infrastructure to meet an ever rising demand. In such a constrained situation we shall have to think of an alternative system which may supplement the existing efforts. Distance educational system is one such alternate. Not only that distance education seems to be relatively less costly than the conventional education, but it has also the potential to transcend the barriers of time and scale. It seems to be an adequate measure to cater to the diverse needs of the society in general and to the individual learner in particular.

Various higher level committees have made strong recommendation for the initation and promotion of distance education in India.[1] The establishment of Indira Gandhi National Open University and a number of state open unversities shall further strengthen the network of distance education in India.

Distance education is relatively less costly than the conventional education. Conventional education is becoming dearer and dearer day by day both for the individual learners and for the society as a whole. So much so, the higher education in the convential system is going to be out of reach of the common individual. The average cost per student in higher education through distance education is found to be one-third of the cost in regular traditional institutions the world over. Economies of scale, less expenditure on academic staff and small amount of private expenditure are

some of the important financial advantages of distance education. The academic competence of the teachers can be utilized optimally. Every university/institution can be entrusted with the responsibility of preparing self-instructional material (SIM) in specific area(s) of knowledge. The same can be multiplied for the use at the national level. This will not only reduce the cost of production of SIM but would provide the learner with the best academic material.

Some studies have already been conducted in the context of social or public costs in the formal and non-formal systems of education.[2] However, very few studies are available on the comparative study of private costs in the conventional and non-conventional systems of education.[3] The present paper is a modest attempt to study and compare the private costs in both the systems. The study is highly relevant in the sense that we can have a comparison of private costs in both the systems of education and thereby draw certain conclusions and policy implications for the educational system in general and for the distance education in particular.

Costs of distance education may be divided into two broad categories: (a) social or public costs which are borne out by the society as a whole; (b) private costs which are borne out by the individual learner.

The main objectives of the study are as under:

1. to study private costs of distance learners;
2. to study private costs of learners in the conventional education;
3. to compare the private costs in both the system; and
4. to see which system is cheaper; on what accounts and to what extent.

Hypothesis

Distance education at the higher level is relatively less costly than the conventional education, on private account.

Methodology

The study is based on a survey. One hundred students from both the systems were selected with the help of stratified random sampling. All the students were enrolled with the Punjabi University, Patiala. Of those hundred students,

fifty were from the distance education and fifty from the conventional education. In the sample from distance education fifty per cent are employed and fifty per cent unemployed. Out of unemployed students thirteen were local and twelve were out-stationed. All the sampled students in distance education attended two personal contact programmes (PCP), each of 9 days. The PCPs were conducted at Patiala only. As regards the sampled students from conventional education, half of them were day scholars and the remaining half were resident scholars. All the day scholars were from Patiala itself.

The collection of data is mainly based on questionnaire. However, personal interview with the learners, wherever necessary, in both the systems of education was arranged. The questionnaire runs into six parts. Part-A relates to personal information; part-B through E relate to various types of costs. Part F is aimed at knowing about the reactions of the learners and observations made by them about both the systems of education. The data relate to the academic session 1987-88 but were collected during 1988-89. The sampled students were studying in M.A. part II, in both the systems of education, during the academic session 1988-89. They gave the information regarding various types of costs on the basis of expenditure incurred by them in the previous academic year i.e. 1987-88.

The main cost components taken into consideration are: tution fee, examination fee, expenditure on books and stationery, xeroxing of reading materials, travel costs, board and lodging costs, private tution, postal expenditure, opportunity costs, etc. It seems relevant to mention here that costs in this study are in terms of monetary costs on current prices. Further, all the costs are annual costs. The expenditure on board and lodging incurred by the resident learners in the conventional education has been taken into account because they are incurring this expenditure only because they are getting education in the formal system and that too as resident scholars. However, the expenses incurred by them on clothing etc. have not been taken into account. In the contrary, the expenditure on board and lodging incurred by the day scholars and the learners in the distance education concept during the PCPs has not been taken into account because they were to incur this expenditure even otherwise. Similarly, the expenses incurred by them on clothing, etc. have not been taken into account. In other words, only those expenses have been taken into account which were directly related to their education.

Discussion

To test the stated hypothesis, a comparison of private costs has been made in both the systems.

A comparison of unit private cost (UPC) in distance and conventional educational systems has been given in table 1. The table indicates very clearly that the UPC in respect of all the cost components, except postal expenditure and private tution, is quite low in distance education as compared to conventional education. The UPC difference is quite spectacular in the case of board and lodging. It is to the tune of Rs. 3925. The UPC on this head is a little more than 15 times in conventional education (CE) as compared to distance education (DE). Similarly the travel cost is more than double in case of CE as compared to DE. The expenses on stationery in the case of CE are more than one and a half times as compared to DE. However, the expenditure on postage and private tution is nil in the case of CE where as it is Rs.45 and Rs.300 respectively in the case of DE. In fact, regular classroom students do not have any need to spend on postage and private tution, thanks to regular contacts with the teacher. However, even if, we deduct the expenses on postage and private tution from the total expenses incurred by a regular classroom student, UPC is still very large in the conventional education. The difference is nearly of Rs.4100. The overall UPC in the distance education comes out to be Rs.1744 as compared to Rs.5830 per annum in the case of conventional education. In other words, the UPC in distance education is less by more than one-third of the UPC in conventional education or the UPC in conventional education is higher by more than three times than that in distance education. Table 1, thus supports our hypothesis that private cost in distance education is substantially low as compared to private cost in conventional education. However, for further discussion, I have compared UPC between various categories of students in both the systems.

Besides the above said costs an effort has been made to estimate opportunity cost only in the case of employed distant learners. It has come out to be Rs.390 during the full one year mainly in the form of half pay leave — which they had to take for educational purposes. They used the half pay leave only for attending PCPs. If we deduct the opportunity cost (Rs.390) from the average annual earnings (Rs.23280) of the employed distant learners then we are left with only Rs.22890 as net earnings per annum per learner.

Let us now compare the UPC between various categories of conventional and distance learners. Table 2 illustrates comparison of UPC between day scholars and unemployed distant learners. The UPC in the case of outstation Dls on every account, except the private tution, is higher than that in the case of local Dls. Day scholars did not spend any money on board and lodging, private tution, and postage. Thus the UPC on these three accounts is zero in the case of day scholars. On all other accounts the UPC is higher in the case of day scholars. The total UPC in the case of distant learner and day scholar are Rs.1577 and Rs.1539 respectively which indicates that UPC in the case of the latter is lower by Rs.38 as compared to a distant learner.

The difference of UPC between day scholars and outstation Dls is even higher. The UPC in the case of the former is lower by Rs.255. However, the UPC in the case of day scholars as compared to local Dls is higher by Rs.179. This is mainly because of higher expenditure on books, stationery, xeroxing of reading material and travelling by the day scholars.

Table 3 compares UPC between resident scholars and unemployed distant learners. The UPC in the case of resident scholars comes out to be Rs.5921 as compared to Rs.1577 in the case of distant learners. This means that UPC in the case of former is higher by 3.75 times as compared to UPC in the case of the latter. Though the UPC on almost every account, except private tution and postage, is higher in the case of resident scholars yet the main contributing factor is expenditure on board and lodging.

Comparison of UPC between day scholars and employed distant learners is given in table 4. The UPC in the case of former on all accounts, except postage and board and lodging, is higher than that in the latter. However, the total UPC in the case of day scholars is higher by Rs.75 than the UPC in the case of employed distant learner. Here we have not taken into account the earnings of the employed Dls. Their average annual per capita earnings were Rs.23280. Had they got the same education through conventional educational system these earnings would not have been there. In that case they would have incurred a loss of Rs.23280 per annum. Their total UPC would, thus, have been (Rs.23280+1539) Rs.24819 had they got education as day scholars and (Rs.23280+5921) Rs.29201 had they got education as resident scholars. The difference of UPC would thus have been (Rs.24819-1464) Rs.23355 in the former case and (Rs.29201-

1464) Rs.27737 in the latter case and not merely Rs.75 and Rs.4457 (see table 5) respectively. In the former case, the UPC in the conventional education would have been higher by nearly 17 times as compared to distant learners and in the latter case it would have been higher by nearly 20 times as compared to distant learners.

Table 5 depicts comparison of UPC between resident scholars and employed distant learners. In the case of resident scholars the UPC on all accounts, except postage, is higher than the UPC in the case of employed Dls. The total UPC in the case of former was higher by Rs.4457 as compared to the latter. In other words the UPC in the case of resident scholars was higher by a little more than 4 times as compared to UPC in the case of employed Dls. This is the situation when we do not take into account the income from their employment. We have already discussed the case by taking the income from their employment.

Comparison of UPC between employed and unemployed distant learners is shown in table 6. Unlike the previous tables, this table does not contain two cost components, viz tution fee and examination fee. The UPC of employed distant learners on books and board and lodging is lower than that of unemployed distant learners. On all other accounts the employed distant learner spend more than the unemployed distant learner. However, the total UPC of employed Dls was Rs.870 as against Rs.983 of unemployed Dls on all the items listed in table 6. It means that the UPC of unemployed Dls was higher by Rs.113 as compared to that of employed Dls. Thus, it is interesting to note that unemployed Dls spent more (on an average) than the employed Dls.

We have discussed and compared unit private cost (UPC) in respect of distant and conventional learners. In all we divided the learners into four categories, viz unemployed distant learners, employed distant learners, regular day scholars and resident scholars. The UPC in respect of all these cases has been Rs.1577, 1464, 1539 and 5921 respectively. However, the combined UPC of distant learners on the one hand and the conventional learners on the other has been Rs.1744 and 5830 respectively. The UPC in respect of unemployed local distant learners and unemployed outstation distant learners has been further computed separately. It has been Rs.1360 and Rs.1794 respectively.

The difference between the UPC in the case of unemployed Dls and regular day scholars is very small. The UPC

of the former is higher by Rs.38 as compared to UPC in the case of the latter. Nevertheless the UPC of local Dls is lower by Rs.179 per annum. It is interesting to note that outstation Dls prefer distance education to conventional education in spite of the fact that they bear a higher cost to the tune of Rs.255 per annum. The UPC difference between resident scholars and unemployed Dls is to the tune of Rs.4344 per annum. It is higher by 3.75 times in the former as compared to the latter. The difference of UPC between day scholars and employed distant learners is not very high. The UPC in the former is higher by Rs.75 per annum as compared to UPC in the latter. The UPC of the resident scholars as compared to that of employed Dls is higher by four times. It is very interesting to note that the UPC of the unemployed Dls is higher by Rs.113 per annum than that of the employed Dls.

The family income (or income from employment) of the various learner-groups varies as follows. In the case of unemployed Dls family income ranges from Rs.6,000 to Rs.48,000 per annum. The income of the employed Dls, their earnings from employment only, ranges from Rs.54,000 to Rs.48,000 per annum. The family income of the day scholars ranges from Rs.10,000 to Rs.60,000 and that of resident scholars ranges from Rs.24,000 to Rs.50,000. It is interesting to note that income range of the unemployed Dls and employed Dls is almost the same. However, the first group of students is wholly dependent on their parents whereas the latter group is self-dependent. As regards the lower limit of the income of day scholars' families, it is lower than the lower limit of resident scholars' families, the same is the case in respect of higher limit of income.

When enquired why students in the two educational systems had joined the respected systems they answered differently. Non-availability of suitable jobs after graduation, better competitive capacity for higher jobs, high quality education, parents capacity to afford the expenses, etc. were some of the reasons stated by the students, in the conventional system. In addition to these reasons, the female students joined the university for better matrimonial prospects. Promotion in the parent jobs, scramble for better employment opportunities, unable to join conventional educational system due to time constraint or financial constraint, or simply to acquire higher education for the sake of getting higher qualifications, etc. were some of the important reasons.

However, a sizeable majority of the sampled students are not satisfied with the curriculum of the course. They feel that the curriculum is not relevant to the Indian socio-economic conditions. Almost all the students are uncertain about their future. In the face of serious unemployment problem, the opportunity cost of the learners in the conventional education system and that of the unemployed Dls is near zero. The students in the conventional system particularly the resident scholars, feel that the educational system is very costly and majority of them face financial crisis.

Conclusion and Policy Implications

It has been concluded from the above discussion that conventional education is very costly as compared to the distant education. The study, thus, supports the stated hypothesis. However, the most expensive head in the conventional education is that of board and lodging. It is very interesting to note that if we deduct the cost of board and lodging from the total UPC of resident scholars it comes out to be Rs.1721, which is very near to the UPC of unemployed outstation distant learners. Anyway, it is still higher than the UPC of day scholars and local distant learners and distant learners combined. The UPC difference in the case of distant learners and day scholars is, however, not very substantial. Anyway the UPC in the conventional education is higher than that of the distant education. This combined with the social or public cost, which is substantially higher in the conventional education as compared to distant education, makes conventional education all the more expensive.

Keeping in view the lesser public and private costs of distant education, the financial constraints of the Indian economy, the ever rising demand for higher education and the rapidly growing population the distant education would be the most suitable system of education. It has already come to occupy an important place in India during the last ten years or so. it has, in fact, become a historical necessity. The future of Indian education lies in the distant education. We should, thus, make earnest efforts to improve, extend and strengthen distant educational network in the country.

Table 1 **Comparison of UPC* in distance and conventional education**

(Rs. per annum)

Cost component	Conventional learner(CL*)	Distant learner(DL*)	Difference (CL-DL)*
Tution fee	600	540	60
Examination fee	60	54	6(1)
Books(2)	280	220	60
Stationery	250	150	100
Xeroxing of reading materials(3)	125	15	110
Travelling(4)	315	145	170
Board and lodging(5)	4200	275	3925
Private tution(6)	-	300	- 300
Postal expenditure	-	45	- 45
Total:	5830	1744	4086

* UPC - unit private cost
CL - conventional learner
DL - distant learner

1. This difference is only due to annual system of examination in distance education and semester examination system in conventional education.
2. Every student, irrespective of the system of education, purchased books relating to the curriculum.
3. Most of the distant learners did not incur any expenditure on this account whereas almost every student spent some amount of money on xeroxing or reading material.
4. It contains travel cost from place of living to the university and vice-versa. In fact, for purposes of travel cost the students in each system have been further divided into two categories, viz, local and oustation students in the case of distant learners and day scholars (these are invariably local) and resident scholars. In the case of local distant learners the travel cost is merely Rs.60 per annum per learner whereas it is Rs.230 per annum per learner in the case of outstation distant learners. Travel cost in the case of a day scholar comes out to be Rs.180 per annum while it is Rs.450 per annum in the case of resident scholars. The local distant learners travel daily to the University Campus to attend classes during the personal contact programme (PCPs). Some of the outstation distant learners also travel daily from their place of living to the University Campus to attend classes during the PCPs. The day scholars travel daily to the University Campus to attend classes. However, the resident scholars occasionally travel to their home-towns.

(Continued p. 11)

Table 2 **Comparison of UPC between day scholars and unemployed distant learners (DIs)**

(Rs. per annum)

Cost component	Day scholars (1)	Distant learners		Average (2)	Difference (1-2)
		Local DLs	Outstation DLs		
Tution fee	600	540	540	540	+ 60
Examination fee	60	54	54	54	+ 6
Books	312	179	349	249	+ 63
Stationery	223	125	155	140	+ 83
Xeroxing of reading material	134	12	16	14	+120
Travelling	210	100	166	133	+ 77
Board and lodging	-	-	250	125*	-125
Private tution	-	350	250	300	-300
Postal expenditure	-	-	44	22*	- 22
Total:	1539	1360	1794	1577	- 38

Table 3 **Comparison of UPC between resident scholars and unemployed distant learners (DLs)**

(Rs. per annum)

Cost component	Resident scholars (1)	Distant learners		Average (2)	Difference (1-2)
		Local DLs	Outstation DLs		
Tution fee	600	540	540	540	+ 60
Examination fee	60	54	54	54	+ 6
Books	248	179	349	249	- 1
Stationery	277	125	155	140	+137
Xeroxing of reading material	116	12	16	14	+102
Travelling	420	100	166	133	+287
Board and lodging	4200	-	250	300	+4075
Private tution	-	350	250	300	-300
Postal expenditure	-	-	44	22	- 22
Total:	5921	1360	1794	1577	4344

(From p. 10)

5. Only those distant learners incur this expenditure whoe stay in the University hostels or in rented accommodation outside the University Campus during the PCPs. In the case of learners in the conventional education system it is clear that only the resident scholars bear these expenses.
6. No one got private coaching in the case of employed distant learners and in the case of regular classroom learners. However, almost every unemployed distant learner got private coaching. In fact, the employed distant learners did not have

(Continued p.12)

Table 4 **Comparison of UPC between day scholars and employed distant learners (DLs)**

(Rs. per annum)

Cost component	Day scholars (1)	Distant learner (2)	Difference (1-2)
Tution fee	600	540	+ 60
Examination fee	60	54	+ 6
Books	316	191	+ 121
Stationery	223	160	+ 63
Xeroxing of reading material	134	16	+ 118
Travelling	210	157	+ 53
Board and lodging	-	300	- 300
Private tution	-	-	-
Postal expenditure	-	46	- 46
Total:	1539	1464	75

Table 5 **Comparison of UPC between resident scholars and employed distant learners (DLs)**

(Rs. per annum)

Cost component	Resident scholars (1)	Distant learner (2)	Difference (1-2)
Tution fee	600	540	+ 60
Examination fee	60	54	+ 6
Books	248	191	+ 57
Stationery	277	160	+ 117
Xeroxing of reading material	116	16	+ 100
Travelling	420	157	+ 263
Board and lodging	4200	300	-3900
Private tution	-	-	-
Postal expenditure	-	46	- 46
Total:	5921	1464	4457

(From p. 11)

any time to get private coaching. The regular scholars did not feel any need for private coaching.

Tuitions fee in the case of distant learners include cost of self-instructional material (SIM).

* Though the average in this case is not that meaningful yet it has been worked out to compare it with average expenditures of day scholars.

Table 6 **Comparison of UPC between employed scholars and employed distant learners (DLs)**

(Rs. per annum)

Cost component	Employed DLs (1)	Unemployed DLs (2)	Difference (1-2)
Books	191	249	- 58
Stationery	160	140	+ 20
Xeroxing of reading material	16	14	+ 2
Travelling	157	133	+ 24
Board and lodging	300	125	+ 175
Private tution	-	300	- 300
Postal expenditure	46	22	+ 24
Total:	870	983	- 113

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MOTIVATION OF ADULTS:*
IMPLICATIONS OF ADULT LEARNING THEORIES FOR DISTANCE EDUCATION

by

Michael Hough

2. Structural Considerations in the Adult Learning Process

The Bergevin et al policy guidelines suggest that structure in the adult learning process can occur through one or all of the following processes: the learning situation; the institution; the learning agent and learning procedures. Suggestions for each of these are now summarized.

a. Structure Through the Learning Process

Process is a summative term arising from the active forces in a learning situation, and at least two types of process exist: the interpersonal processes within a learner based on needs and values; and the interpersonal aspects between persons which result in phenomena such as selective in-attention, rationalization of learning; projection or perceptual distortion.

Structure which emanates from these types of process can be explained in terms of power relations, social acceptance (or rejection), work attitudes and other non-functional behaviours (eg disruption) in the learning social system. Adult learning may be especially affected by the personal attitudes and interpersonal processes that exist in a learning situation, and adult educators should be particularly sensitive to the impact of their personal interactions and relationships with adult students. The amount of influence of the learner in an adult learning situation appears more significant that in a child/adolescent learning situation, and adult educators are advised to make it an early

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* This is a continuation of the article appeared in Vol V, Issue I, 1988.

priority of the design and conduct of learning to determine the characteristics of each adult they teach, and to use this information in developing positive interpersonal relationships with them. This creates considerable difficulties for distance education, which may only be partially overcome by approaches such as face-to-face contact early in a given course; use of A-V techniques to introduce the teacher to the learner; simple two-way access systems so that learners can communicate readily with the teacher and with other learners (which implies a very early priority if a course is to inform each learner of the existence, location and the interests of other learners).

b. Structure Through the Institution

The three basic methods used by institutions sponsoring adult education are:

- individual methods, eg correspondence study, directed study, apprenticeships or internships which are all methods used most effectively when learning goals do not call for major changes in social behaviour;

- group methods, eg class, discussion groups, laboratories, assemblies or conventions which are methods used most effectively when learning goals are to promote individual learning in a group setting or to change group behaviour;

- community methods, eg community development projects where the learning goals are to promote corporate attitudes or to change social behaviour. Bergevin et al comment that community methods are rarely used in practice.

Thus an institution can influence structure through its stated (or implied) preferences or requirements for particular methods of approaching learning, and it clearly controls learning to the degree that it is able to commit facilities and resources to particular structural options. In short, institutions probably hold corporate views about the 'appropriate' forms for adult education, and these views may represent very significant barriers to any other approaches. This fact supports the tendency for distance education to the centralized into certain institutions, which presumably have both an attitudinal and financial commitment to the particular requirements of distance education. As a corollary, it also suggests that approaches to the distance education of adults which regard it as an appendage to more traditional face-to-face teaching, probably create

unsympathetic organizational attitudes to what may seem the unnecessary expense and complexities of distance education.

c. Structure Through the Learning Agent

There are probably two basic belief structures for which the adult educator can approach his or her roles as learning agent:

- 'internalized ambivalence'—where the agent's role is that of an enabler to assist the learner change, sometimes in directions that the adult educator would not personally have selected. In this case the emphases are on the learner's needs and perceptions;

or

- 'reinforcement-reward'—where the educator's role is to assist the learner attain the expected or required responses. In this case, the emphasis is on the learner's overt behaviour in relation to predetermined outcomes.

These different roles for the learning agent lead to very different behaviours for the organizing and presenting of adult learning. Thus the structures imposed by the learning agent are affected by their:

- goals and needs, ie what they hope to gain from the adult learning situation;
- conceptions of the nature of adults and of adult learning;
- selection of teaching/learning techniques, based on a range of decision factors including: goals of learning activity; availability of resource; size of group; nature of the subject; characteristics of the learner group; physical facilities available; institutional leadership patterns and desired patterns of communication.

The learning agent can also choose to organize and structure adult learning through their selection of operational procedure to guide learning activities. A probable checklist of procedures is now given together with what are considered to be andragogically sound examples for each item.

d. Structure Through Procedure

The learning agent uses operational procedures to guide

adult learning activities such as:

- diagnostic processes, eg identifying difficulties or problems in learning as it takes place;
- planning processes, eg involving adult learners in planning learning;
- communication processes, eg an aspect of every phase of the programme;
- feedback and appraisal processes, eg getting feedback to agent and learner;
- practice-guidance processes, eg high student participation;
- supportive processes, eg support change in learners by renegotiating requirements if necessary and allay participant's fears.

These above criteria are offered as a feasible checklist of choice options available in the difficult process of optimizing learning in adults, in a specific situation such as distance learning. One major implication of all of these criteria is that they are relatively time-consuming, and approaches do not support brief modular scheduling of formal distance teaching, ie they would be better implemented in longer time blocks than term or semester units.

Some Observations on the Implementation of Adult Learning Concepts in Tertiary Institutions Involved in Distance Teaching

This section attempts to identify the major reasons why in the opinion of this author: (1) college credit courses and (2) correspondence or off campus mode teaching, will continue to have problems incorporating adult learning principles into course designs and implementation procedures.

College/University type limitations and concerns are caused by (in no particular order):

1. The normative (ie comparative) grading assumptions of most tertiary institutions and of many of their staff.
2. The curriculum belief that tertiary institutions can identify a body of knowledge — usually organized into

a subject design for presentation — that it is the task of the College/University to pass on to the student.

3. The practice (and probably also the belief) that contact credit hours are essential for success in tertiary study, ie that it is the act of studying for a specified period of time that is an essential ingredient of a formal award from a College or University.

4. The organizational assumptions that courses should be taught in semester/term units, coupled with the concept of normal rates of progress through courses and subject sequences.

5. The relative non-questioning of the assumptions and practices of TAFE and tertiary institutions by the Australian public, as compared with relative constant comments about the primary and secondary sectors.

Correspondence/of campus education type limitations and concerns are caused by (in no particular order):

1. The financial costs of techniques other than 'one-to-one' notes and (sometimes) A-V materials designed to transmit knowledge/understanding aspect.

2. The need to supplement the above materials by face-to-face contact, eg residential schools for skill/attitudinal/comples cognitive aspects.

3. Lack of technological alternatives that are economically feasible to implement, in institutions that combine face-to-face/off campus teaching.

4. Lack of expertise in teaching staff as learning agents, capable of implementing adult learning theories and alternative methods for teaching adults.

5. The fact that many adults vote with their feet, i.e. drop out, rather than criticize their subjects or courses.

6. Most adults who engage in off campus/corresondence programmes are (at least initially) highly motivated to learn, and suspend adult learner behaviour to a degree. In a sense, distance teaching has an elite student group, in motivational terms.

These factors represent the probable barriers to a full

implementation of adult learning procedures in post-secondary and distance education. In some cases, considerable thought needs to be given as to whether existing practices should be discarded. For example, certain areas of adult learning (eg the training of medical practitioners, engineers, pilots) clearly have a body of knowledge that needs to be passed on to the student. The probable real usefulness of the proceding checklist is to provide a questioning device to test whether certain traditions and assumptions about tertiary and distance education need to be implemented. In addition the checklist certainly confirms that assumptions are being made; and they are often different from the advice offered by writers on adult education on how to maximize learning for adults.

Some Proposals for Consideration

Where it seems appropriate to incorporate adult learning assumptions into the course of subject designs of distance teaching, the following approaches warrant serious consideration.

a Course Aspects

The course offers 'challenge' process to students, whereby a student can question the value of a recommended subject for them as individuals. In general, a challenge process is designed to achieve the following benefits:

- Allow students to closely examine a recommended sequence of study for its suitability to their individuals needs.

- Encourage students to propose alternative study experiences, based on their own needs, which must meet previously identified students (set by the educational institution) in terms of equivalence in conceptual difficulty and methods of assessment. In effect, the student has the task of satisfying the institution that the proposed replacement study experience is equivalent to the original subject(s) under challenge, and it should be the responsibility of the student to present an acceptable proposal. Such a proposal should include sufficient detail in objectives, content, how taught and how assessed, for the replacement experience to the evaluated by the institution.

A further elaboration on the challenge process can be identified when the course is structured with a core sequence

of compulsory subjects and an elective sequence of recommended subjects. When a core subject is challenged, there is a strong institutional case for the student to provide acceptable evidence that they already process the outcomes of the subject under challenge (this may require that they attempt only the evaluation aspects of the subject, for example). When a recommended subject is challeneged, a student need not establish that they already possess its outcomes, but could challenge on the basis of their particular needs from a selected course of study.

An additional approach is the deliberate use of subjects which are designed to transmit process or experience (rather than cognitive) outcomes. For example, a course in adult education may contain a subject titled 'Experiential Techniques for Adults,' in which the learning requirements consist of acquiring and practising the individual or group skills considered to be the techniques required by successful adult educators. This technique is much more compatible with a competency-based approach to content selection and evaluation, rather than the more traditional mastery of factual information approach of most subjects.

The underlying purpose of the above techniques is to create a formal adult learning situation where the course design enables learners to experience the concepts of adult education, as well as to learn about them in a cognitive way.

b. **Subject Design Aspects**

As well as incorporating the above aspects into the overall course structure, the following suggestions can be adopted by adult educators, as features of any given subject.

The use of a firm proposal by the teacher, which is offered to students as a recommendation for an optical study experience in a particular subject. This proposal would often contain:

- A core set of a recommended experiences, considered fundamental by the teacher, with a suggestion that all participants need to experience them, or demonstrate they possess them.

- A set of options, considered likely to be more useful, from which students should select issues of relevance to their own needs.

- Details of the subject assessment scheme, essentially

in the form of a contract proposal. Each student is required to develop a personal proposal which would specify both the grade to be attempted for the subject and a personal work programme to be attempted for that grade.

In this approach, the teacher and learner can finalize contracts on an individual student basis, and grades are awarded only as a result of compeletion of each personal contract, once agreed to by both parties.

Again, these details are provided to illustrate approaches to designing individual subject experiences, that are consistent with adult learning principles. Using these approaches, the teacher/adult educator becomes very much more of a resource person whose role is to assist, to clarify issues of choice, and provide information and expertise as required.

The approaches are not easy alternatives to traditional expository instruction techniques—they require considerable effort, flexibility and tolerance on behalf of the adult educator. The reward patterns for educators are also very different—being much more of a vicarious nature. However, the achievement and commitment from motivated adults can be quite outstanding, and the quality of satisfaction attainable is commensurately higher.

The motivation of adults learning through distance education is one of the most difficult of situations for the design of effective learning experiences. It is considered that a closer consideration of the criteria and examples mentioned in this paper would lead to more effective distance learning by adults — essentially by a greater incoropration of adult needs and characteristics into both course and subject designs and into the delivery system of distance education.

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DISTANCE EDUCATION IN NIGERIAN PRISONS: PROBLEMS AND PROSPECTS

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Abstract

This paper examines the practice of distance education in Nigerian prisons. It is noted that only prisons inmates who can afford the cost benefit since there is no grants for full-time or part-time education in the prisons. Other problems include the prohibition of electronic and media in the prisons among others. Distance education by nature is a mass method which is cheaper than conventional school system after the initial outlay. It is therefore suited to the prison since prison inmates work and live in groups.

Distance education, commonly referred to as correspondence education in Nigeria is a relatively new phenomenon. Its beginning is traced to the period immediately following World War-II. The origin of correspondence education in Nigeria is accounted for by the inability of those interested in further education but could not travel abroad for it. Correspondence education developed to fill this gap. Omelewa (1985:151-157) has shown that correspondence education was the earliest manifestation of distance education in Nigeria and that it offered those who could not travel abroad, the opportunity for the access to various forms of higher education until the establishment of the University College, Ibadan in 1948. This view is supported by Ezeani (1982:135-142). In his words:

> "Correspondence education... started in response to the demands of the educationally able but neglected and under-privileged Nigerians for the provision of more 'access' to continuing and higher education."

Various writers (NNCAE, 1982) have discussed various aspects of distance education in Nigeria. However, in none of the works available to this writer has distance education in the prisons been discussed. The purpose of this paper is therefore to discuss the practice of distance education in Nigeria prisons with emphasis on problems and prospects. Since correspondence education was the earliest manifestation of distance education the two terms would be used to mean the same concept in this paper.

Correspondence Education in the Prisons

In Nigeria, education, vocation training and library services were introduced into all convict prisons at about 1947. However, the exact date when correspondence education was introduced is not very clear. Ogundipe (1984:22) identifies three main types of education in the prisons. These are vocational, correspondence and organised basic education. In his words there is:

> ". . . correspondence education through correspondence colleges if the individual prison inmate can afford the cost. Such tution is geared towards standardised examination, such as General Certificat of Education (GCE)."(underlined for emphasis.)

As we approach the 21st century, technological advancement has reduced the world to a global village. It is this possibility that has led to the establishment of open universities through the world. Through the use of computer learning networks (Lindo Harasim, 1986:59-70) and Radio Conferences (Johnson, 1985:29-35) individual learners scattered over wide geographical locations could form learning groups to share experiences and information. These possibilities which modern technology can be put has prompted the Commonwealth to create an institution to promote distance education. The Commonwealth (1988:8) is unambiguous about the aims and objectives of the institutions when it states that:

> ". . . any learner anywhere in the Commonwealth should be able to study and distance teaching programmes available from any bonafide college or university within the Commonwealth."

Against this backdrop, this paper intends to examine correspondence education in the prison, if prison inmates in Nigeria are to benefit since Nigeria is within the Commonwealth.

As stated somewhere else, prison inmates are allowed to receive tution through individual financial means. The inmate has to pay for such tution from his/her own resources or request a relation or friend outside the prison to do so. What then are some of the basic problems associated with the practice of correspondence education in the prison?

Firstly, the practice of correspondence education as presently organised in the prisons restricts it to those who can afford the cost. Taking prison earning scheme into consideration, this is a remote possibility. On the average prison inmates earn 50k to N1.00 per month (Esiri, 1987:9). At the time this paper was being put together, N7.5 was exchanging for US$1.00. The inmate is allowed to spend half of the earnings. At N1.00 per month an inmate serving five-year prison term would earn about N60.00, that is about $8.00. If he/she spends half, the balance would be N30.00 or $4.00. At this point in time the cost of tution for one General Certificate in Education (GCE) ordinary level is about N30.00 at most correspondence colleges. To enter for five subjects which is generally accepted for admission into higher institutions or get a job the inmate needs about N150.00. To enter for the examination itself would cost about N130.00. Tution plus examination would cost about N280.00 which is N220.00 more than an inmate's five year earning. From this, it is clear that prison inmates can only benefit from correspondence education if they have savings they can fall back (a rare possibility), or rely on firends and relations. There are not grants on scholarships for prison inmates who wish to pursue part-time study. This brings us to the mode of study.

A second major problem facing the practice of correspondence education is the lack of provision for full-time study in the prisons. All inmates are attached to one of the work areas like carpentry, plumbing, shoe repairs and kitchen etc. Those interested in educational activities are allowed to do so between 3 - 5 p.m. Monday to Friday, while those not interested in education are locked up in their cells. Two hours of study a day may not be sufficient for serious academic work. Perhaps, provision for full-time and part-time study may be necessary to address this problem.

Thirdly, the absence of an open university in Nigeria to carry out research and coordinate teaching-learning through correspondence education is another major problem. In the present arrangement, inmates cannot benefit from group study, computer terminals or a counsellor in a study centre. Learning is therefore based entirely on individual

efforts. The National Open University (NOU) established in 1983 and suspended by the Military Government (Oduaran, 1985:48) would have been a welcomed relief.

Fourthly, in the absence of an open university, electronic and print media may have been utilized in correspondence education in the prison. Unfortunately, electronic and print media are prohibited items in Nigerian prisons (Enuku, 1989:7). Prison inmate as a result have no access to television and radio sets neither are they allowed to read newspapers and magazines. This does not only exclude the use of modern technology in correspondence education, it also exclude the use of video-recorders and radio sets as audio-visual aid from our prisons. At this point in time vocational education through an informal apprenticeship system and organized education (very rarely) (Enuku, 1987:91) is reduced mainly to face-to-face contact.

Fifthly, granted that electronic media was permitted in the prisons, source of power would have been a problem. Although, the large prisons in Nigeria are located in urban centres especially state capitals, a high proportion of prisons are located in rural areas where there is no electricity. The problems posed by erractic power supply or the total absence of it have been noted by Akinyemi (1982:99) and Oduaran (1986:50). This means that a large proportion of the prisons cannot benefit from the use of electronic media in correspondence education.

Lastly, most of the existing prisons lack basic infrastructures. In a recent study, Newswatch (1989:16) states that:

> "Libraries, where inmates can study and prepare for examinations and advance their careers while in prison, are virtually non-existent. In Maiduguri, for instance, Newswatch found only two books in the prison library: a Bible and a Koran."

In the absence of education blocks and libraries, correspondence education may not be effective since there are no reference sources. However, some of the new prisons being designed have education blocks, although providing the needed resources is a different ball game altogether.

Prospects

Thus far we have been examining the problems facing the full realisation of correspondence education in Nigerian

prisons. What then are the prospects of correspondence education is fully-encouraged.

Firstly, correspondence education by nature is a mass medium which is cheaper after the initial cost since it can reach a larger audience compared to the conventional school system. The prison is best suited for correspondence education because it is one social group where individuals loose identity and assume group characteristics. Since they work in groups it would be very easy to form learning groups to share experiences and information.

Secondly, by design most prisons are located some distance for urban areas, especially thinly populated areas. Thus one of the easiest means of education is correspondence education.

Thirdly, there are no qualified teachers in the prison service. Despite this, qualified teachers from outside do not have easy access to the prisons because they are regarded as security risk. Thus correspondence education may be the most feasible means of education, since it requires fewer teachers and the course materials can be made available through tution, video cassettes, radio talk without the physical presence of the teacher.

Conclusion

Correspondence education started in Nigeria just after World War-II. However, when it was introduced into the prisons is not very clear. What is clear is that prison inmates are allowed to receive tution if they can personally pay the cost. This has restricted correspondence education to a few inmates since prison inmates do not earn enough to finance it and there are not grants for part-time or full-time education. Other problems facing the realisation of correspondence education in Nigerian prisons include, absence of an open university to coordinate research, lack of facilities, especially libraries and the prohibition of electronic and print media in the prisons.

With technological possibilities and the Commonwealth initiative in distance education, it may be one of the most feasible means of education in the prisons since by nature, it is a mass method which is cheaper after the initial outlay. In the absence of a professional teachers cadre in the prison service, it may be easier to educate the inmates since it does not need the physical presence of teachers.

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HUMAN CAPITAL AND ECONOMIC GROWTH WITH SPECIAL REFERENCE TO NON-FORMAL EDUCATION IN PAKISTAN

by

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and
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Introduction

The human capital theory dates back to late 1950s and particularly with the writing of Schultz in 1960. Since then professionals started using this term in their discussion. During the past twenty years stream of literature emerged on the topic under discussion. Human capital means the productive capacities of human beings as income producing agents. Human capital is the stock of skills and productive knowledge (the knowledge produced by research and development expenditures and the skills derived from education and training) embodied in people. The yield on human capital investment lies in enhancing a person's skills and earning power, and in increasing the efficiency of economic decision making. Person's skills, efficiency and economic decision making is prerequisite, among others, for economic growth and development.

One can find huge literature on the role of formal education in human capital development and resulting economic growth. However, non-formal education is least discussed.

Since decade or more, non-formal education is gaining its importance over the world specially in LDC's. No body explicitly touched the role of non-formal education in developing the human capital and economic growth. Thus the objective of the paper is to highlight the role of non-formal education in human capital development and economic growth with special reference to Pakistan.

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Role of Education in Nations' Output

Empirical analysis is restricted to the income and output flows that result from human capital investment. Number of studies, started by Denison [6], examined the contribution of education to economic growth. The general findings from different analysis for the United States and other countries suggest that growth of education has contributed substantially to growth of output. Psachorapoulous [17] review of studies for many countries reveal that education counts, on average, from nine to seventeen per cent in growth of output, with larger contribution of developing countries. Bowman's [3] summary of the evidence shows that an individual country variation of the contribution of education is from two to twenty-eight per cent. Some studies [4, 6, 13] estimated that the proportion of growth of national output due to education range from ten to twenty per cent of the observed growth rate. However, certain studies [1, 5] show that the contribution of education to productivity is slowing down.

Griliches [9], in manufacturing, used indices of occupation rather than of education as the measure of labour skills and found positive impact. Jorgenson [14] analyzed the time series in data on education and estimated translog production relations for United States, obtaining positive education effects also. The most extensive work has been done in agriculture. Grilches review it at aggregate level. The rate of return to education among farmers is substantial. Detailed study shows how these returns come about. More educated farmers control larger resources in the form of larger farms. It is possible that there is common connection with family background and wealth. The farmers are more efficient in their techniques of production and that their education is used primarily to keep them informed of recent technology changes in agricultural production, which they adopt with great frequency and with quicker response. Education makes farmer more efficient processors of new information. Jamison and Lau [12] summarized some micro work and found that education generally is a positive and at least marginally significant co-efficient in the relevant production function.

There is another view regarding role of education and that view is called as screening/sorting and signalling. The view is that relative wages overstate relative productivities, so that the impact of additional education on output is less than indicated by the studies mentioned earlier.

Education has no direct effect on improving a person's skills, but rather serves as an informational device for identifying more and less tallented people. Spence [22] has shown how this process can lead to an equilibrium in which education sorts out workers by ability but where increase in the means level of education have no productive value. The primary impact of education is to increase the ability to deal with changing circumstances with respect to how education alters speed in adopting new technologies. However, the general finding is supportive of human capital view.

Education and Personal Economic Success

On the question of link between the rate of return to investment on education, literature gives different results. Studies summarized by Blaug [2] depict that culculated rates range from five to fifteen per cent although private rates are as high as eigthy per cent for primary education in certain developing countries. He further states that, in general, private rate of return tends to decline monotonically with additional year of schooling. While others [11] reveal that rates of return on education is about ten per cent in different countries. Griliches and Chamberlain [10] presented that the brothers with additional schooling earn more than the brothers with less schooling, by amounts only modestly different from those between non-brothers. Studies [15] conducted on the private rate of return to education in Pakistan have shown that the estimated rates are very low on an absolute level, but these are positively related to the level of education.

On the basis of above discussion it can be concluded that education enhances the productive capacities of human beings and thus it is a prerequisite for economic development of the countries.

Education and Adoption of Technological Innovations

Change, especially technological one has been considered to get the people on the path of development. Among the factors of change, education has been recognized as an effective and expedient change agent. It not only broadens the mental horizon of the people, it also helps and motivates them to decide positively and participate actively in the social and economic development of family and the country at large.

In developing countries where some one in the family may read and bring the information for decisionmaking, and thus help in the uplift of the family through adoption of new technological innovations.

Rogers and Shoemaker [18] have reported 203 studies confirming an association between education and adoption of farm innovations (while 72 studies did not show any relationship), in various countries of the world. Sinha and Sinha [21] in their study in Sikkim and Voh [23] in his Nigerian study have also reported the same. Shirazi [20] while studying the adoption behaviour of rural farmers in Pakistani villages has found a positive relationship between education and adoption of a selected package of farm innovations viz; HYV, fertilizers, seed control and seed treatment. This shows the importance of education in leading the public towards making decisions for adoption of technology and moving fast on the path of development.

Educational Spectrum of Pakistan

As stated earlier education is considered the torch bearer of enlightenment, affluence and development. However, unfortunately, Pakistan with only 26.2% literate population has got the lowest literacy rate in Asia and Pacific region. According to 1981 census report, out of 84.3 million people only 13 million have attained some level of education. Out of these (13 millions) 46% have attained education at primary, 23% at middle, 20% at S.S.C, 6% at higher secondary, 4% at graduate and only 1% at postgraduate level. According to the economic survey 1988-89, there are 83872 primary, 6458 middle, 5008 high schools and 581 colleges with 7.6, 2.1, 0.7 and 0.42 million students respectively, in 1987-88. There are also 99 professional colleges with 77.5 thousand students and 21 universities with 65340 students in the 1987-88. This is highly an alarming and disappointing situation both for general public and the policymakers at Islamabad.

Luckily, the problem has been realized and has been reflected in various education policies. The policymakers were forced to look into the possible solutions for such a grave problem, especially when formal system due to its limitations, was unable to enhance the literacy rate according to the requirements of the nation, rather, each coming year was adding a group of millions of new illiterates to the old bank of illiterates and also widening the gap between literates and illiterates.

At this stage, the role of non-formal education, at mass scale was recognized. This led to the establishment of an open university in the country in 1974. There had been some disintegrated attempts by PTV, PBC and others to provide general awareness to people through non-formal means, before the establishment of open university, although, at a very small scale. Allama Iqbal Open University (AIOU), since its inception has played a vital role motivating almost all the classes of people, both urban and rural, to get education. It has provided a wide range of courses at all levels. Its contribution has significantly been recognized at national and international level. The UNESCO's Noma International Literacy Award (1988) given to AIOU is a glowing sign of its international recognition and service to the nation. AIOU is the first recipient of such an award in Pakistan since 1947.

AIOU and other Universities

A complete comparison of AIOU with other formal universities is neither possible nor within the scope of this paper, due to the difference in their educational system, clientele, nature of courses and limitations. However, a brief comparison in number of students enrolled both at AIOU and all other universities is discussed briefly. This would be helpful in understanding the fact that non-formal or distance education has an upper hand as much as the number of enrolled students is concerned.

At present, as reported in Pakistan Statistical Yearbook, 1989 the enrolment position of all other (21) universities and that of AIOU Is as under (Table-1):

Table 1

Enrolment figures for graduate and postgraduate students

University		1985-86	1986-87	1987-88
AIOU	B.A.	33388	34832	42642
(Course enrolment)	PG	365	4715	5149
Total		33753	39547	47791
All other (21) universities		59851	61319	65340

Available data with the Director Research & Evaluation Centre, AIOU shows that in 1987-88 total course enrolment at all levels (including intermediate) was 154245 whereas the actual students enrolment was 76937 for this period. This shows that in 1987-88 student-wise enrolment was almost fifty per cent of the total course-wise enrolment. Taking the figures for 1987-88 where all the 21 universities enrolled 65340 students i.e. about 3111 students per university at an average, the AIOU alone for the same level and period, enrolled about 24000 students (i.e. 50% of course enrolment for this period). It means that about 27% of the total enrolment for all 22 universities in Pakistan, was enroled with AIOU. Same is the case of Teacher Education Programme. There are 80 teacher training institutes and colleges in the country with an annual output of around 15000. The figures for teacher training programmes like PTC, PTOC and CT at AIOU for the year 1985-86, 1986-87 and 1987-88 are 28830, 20769 and 29799 respectively. Keeping in view that these are the course enrolment figures student-wise enrolment for 1987-88 becomes 14899 (i.e. 50% of the course enrolment of 29799). This again is almost equal to the enrolment of all the 80 such institutes.

This shows the efficiency of not only AIOU but also of the distance education system, its popularity and the pace as well. It also calls for strengthening the system further to enable AIOU to enhance the literacy rate in Pakistan to the requirements of the time and the nation.

Conclusions

The above discussion clearly shows a positive relationship between education and countrys' output and the private rate of return. Further, it shows that more the education in a country higher is the rate of adoption of technological innovations. Thus the education increases the productive capacity of human being at varying degrees.

It is also clear that formal system of education, due to its own limitations, cannot patch up the gap between literates and illiterates under prevailing conditions. However, the non-formal system or distance education system adopted at AIOU seems to be successfully on the way in narrowing this gap.

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DISTANCE HIGHER EDUCATION AND SERVICE FOR STUDENTS

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Service for Students and Philosophical Base of Higher Education

The concept of guidance and services for collegiate students varies widely depending on one's viewpoint of education. Service for students of distance education on the tertiary level, varies widely in goals, content and methods, as determined by the underlying philosophical premise. The popular viewpoints held for higher education in Korea break down into three.

In the first place, we notice a tendency to view higher education as aimed at producing personnel for social leadership. According to this view, the primary goal of higher education is to produce in various walks of life, who possess a broad base of knowledge and useful insight into reality.

Second, the end result of higher education is considered to be a thorough study of disciplines. This viewpoint includes two streams of academic activities: one is to transmit the culture and knowledge of a society to succeeding generations and the other is a deep search of the unknown.

The third view is technological in orientation and asserts that higher education should produce professionals in technical fields. Education directed to this goal includes the requirement that working ethics, value, knowledge and skill be integrated into the form of an educational programme.

These points of view give rise to an 'elite' education, calling for the shift of attention from genuine concern for individual growth to the selective winnowing out of dull students from access to higher education. In this case, educational efforts are directed toward imparting knowledge,

keeping at arms' length services catering to individual needs.

Judging from the necessity of providing service and guidance with genuine concern for individual needs for growth, the traditional philosophy that underpins higher education is limited. It does not attach any importance to counselling services in school, insisting that it might well be the primary function of home and other social organizations. An extreme case of this view is well exemplified by Hutchins who emphasized knowledge-bound education to the virtual exclusion of this concern on the university level. As witnessed these days especially in Korea, guidance for students seldom find a place in the educational scene dominated by the traditional philosophy. If there are any services offered, they play little more than a supplementary role to the teaching of subject matter. Universities remain aloof from individual needs attendant to personal development. A common trend is that alienation and psychological conflict are left to deepen, with the resultant dehumanization of the educational process.

Higher education, which used to be limited to a few, is now reaching masses of people. Nearly one-third of the population in the relevant age groups is attending universities and colleges. The students of the Korea Air and Correspondence University are diverse in background and ability. In order for the University to effectively meet a wide variety of needs, it is essential to adopt an innovative approach.

Distance Higher Education and Services for Students

Higher education in today's Korea, is no longer only for the elite. Moreover, the movement toward it popularization will likely continue unabated. The Korea Air and Correspondence University, by its distance learning methods, produces students quite different from those attending conventional universities. Since most of them are employed and cannot commit themselves to a full load of study, they come up with different values and attitudes which in turn beget varying educational needs. Higher education has already transcended the bounds of traditional concepts which limited its function to producing persons of leadership in a society of scholars searching for truth. Hence, it is imperative to redefine the philosophical base of higher education.

With a sharp increase in the number of students, the

pattern of interaction among the constituents of a university reflects a significant departure from the traditional one. In general, there is a new trend to take higher education as an opportunity for self-realization and this trend is even more prominent among distance learners. The traditional orientation toward general, specialized and vocational education make it difficult to meet the wide variety of needs typical of a heterogeneous group. Most desirable would be a new pattern of education which provided for a harmonious accommodation of all needs by giving heavier weight to the services responding to individual problems. Emphasis on personal growth is based on humanitarianism which constitutes the basic principle of education. Thus, it is not unreasonable to consider education in the context of individual development. To facilitate growth educational efforts must focus on a balanced coverage of the physical, affective and cognitive aspects of the students. Human growth involves changes in personal capabilities, family status, occupational standing, social obligations, moral and religious awareness. All of these should be given a place in education.

Expanding the realm of education in such a way may invite the criticism that education is too comprehensive and diffuse in its goal. That may be countered by asserting 'There is nothing which is non-educational in the world.' In order for education to have a genuine concern for individual needs and development, however, its role should be defined in greater breadth, by giving increased visibility to individual progress. Service for students derives its meaning from the reorientation of the educational role. It is necessary to develop the concept of service and guidance that views all educational efforts as sub-servient to the growth of each student.

Service catering to the individual may be offered in various ways. Traditionally, the teaching of subject matter and guidance have been considered the two main pillars of formal education. The implication is that service for students can find its place, not only in the area of subject matter, but also in extra-curricular activities which may be more conducive to a greater variety of approaches. Guidance is not clearly separable from instruction though it has its own sanctum. But there is a growing tendency to articulate guidance as part of the curriculum. It is essential that distance higher education give prominence to services for students and this will characterize distance higher education as more diversified and complicated.

Basic Directions of Students Services

What follows discusses services responsive to personal needs of students in relation to other areas than curriculum. In the past, teachers replaced parents in guidance related to everyday life. Residential education was the genesis of such services in that teachers played the role of parents in taking care of the children. Today's education at school emphasizes educational experience which resembles everyday life. Services with a genuine concern for the individual may take various forms in distance higher education. Before addressing specific ways of providing service, it would be necessary to set up a framework giving the basic direction service should take.

As currently practiced by the school, guidance is haphazardly given according to the traditional values and common sense of the counsellor, rather than any particular training. Considering the enormous amount of resources put into curriculum, guidance appears to be of minimal significance. Few educators recognize the importance of planning for it in a broad, long-term perspective. This could be accomplished by drawing on the body of scientific principles and experience. The research of educational psychology sheds new light on the process of human development and produces knowledge as to how such service should be offered. Therefore, services to meet the emotional and developmental needs of students should be based on the findings of psychological research and given by personnel specifically trained to perform such tasks. Financial input must be optimally combined with administrative support, if these services are to produce positive results.

Next, counselling service should be offered in a way that all students have easy access to it, irrespective of socio-economic status, sex or age. Services must be universally applied to all. No one should be denied service because of emotional, psychological or family problems. The scope of the services should be comprehensive enough to deal with all problems. Planning an operation to meet these requirements is a difficult task. But the problems are so urgent that they cannot be left unresolved because of the difficulty involved.

In order for the Korea Air and Correspondence University to approach the dispensing of these services with greater effectiveness, it may be useful to make an in-depth study of the regional community. All people are potential students and when enrolment exceeds 100,000, they may lack a

sense of affiliation with the University. Instead, they may feel attached to an employer or some other group. Intimacy is more likely to develop with neighbours, colleagues, and others outside the sphere of school. Without the support of the regional communities, life-long education cannot get a firm foothold, for the soil has been sterilized by apathy. The services of distance education should not only be for those enrolled in the university, but for the entire community. In other words, the services of distance education should be considered in the context of the community, each with its distinctive needs taken into account.

Specific Activities of Service for Students

Services for students is a unique term coined to include a wide range of activities. In meaning, it comes close to student personnel services in English terms. It includes, not only counselling, psychological testing, information dissemination, placement, political activities and follow-up action but also with health and treatment food and drink, sports, scholarship, self-governing activities traffic control, recreation, and so forth. These activities can be grouped according to taxonomical classification, namely; cognitive, affective, motor-psycho and others. They are diverse enough to meet a wide range of student requirements. If they are offered by untrained personnel according to customary practice or in a stereo-type pattern, they are far from being responsive to the diversity of needs. Therefore, services for students require flexibility and creativity based on the unique life styles and behavioural patterns of individual students. Education is generally bound by administrative and educational traditions; the means outshine the ends. This trend is not compatible with the service for students. In the confusing welter of traditions, we should not lose sight of the objectives that these activities are aimed at achieving. This is the key factor for having effective students services.

It is proper at this point in time to examine what is considered relevant service for students, particularly of distance education. First, the students are confronted with a new educational style far different from that which they are used to. The problem of unfamiliarity with new surroundings can be more serious at KACU than at institutions having more in common with high schools. Even in the latter, a majority of students encounter problems in adapting to new surroundings. About one-third of the students experience severe psychological conflict. Much more can be said

concerning the differences between KACU and high school teaching methods, teacher-student relationships and the total environment. Students find themselves confronted with new demands in a situation where they have lost familiar cues. What is needed is a buffer programme which will orient students to absorb the shock coming from unfamiliar surroundings. An orientation to campus life, learning methods and curriculum by department would be most helpful in this regard. Nevertheless, this programme alone is not enough. Just as much needed is a programme which adapts the life style of students to the goals of education. The absence of such a programme accounts for a high dropout ratio at lower grade levels. This problem assumes serious dimensions by the fact that they are more likely to become permanent stragglers in life. To prevent this, counselling, psychological testing and information should be provided. As widely practiced in other schools, educational psychology would be a valuable addition. Another way out of the problem is to reduce credit requirements in favour of a programme which exposes students to as much, or as little, as they feel capable of handling until their student skills improve.

Second, a wide variety of assistance programmes should be considered to help students overcome problems prohibitive to the progress that stretches their potential to the fullest measure. With a heterogeneous group in various stages of growth, it seems impossible to treat multifarious problems. The services that assist man's growth are based on a body of scientific knowledge regarding the development tasks in each stage, the crisis resulting from the performance of tasks, life styles and the behavioural patterns needed for successful performance. Considering all of this, services for students may not be so superflous as once thought. Ways should be opened for students to resolve their problems rationally, those felt by the inner being as well as those encountered in family and occupation. Economic and social problems may be further delineated. In as much as they are of common concern, educators should assume moral responsibility to address them as if they were their own. When these problems are overlooked, students are more likely to feel alienated, which exerts an adverse impact on other educational efforts. Viewing education as a service catering to individual growth holds educators responsible for all problems related to everyday life. Development tasks to be achieved are considered in relation to physical/motor-psycho, character, cognitive/achievement, and life/occupational domains. The Korea Air and Correspondence University should face up to the necessity of providing a comprehensive and systematic programme which deals with

developmental tasks on a sustained basis.

Third, there are certain things that repeat themselves in our life. Since we experience, feel and think of them as part of our life, we tend to take them for granted. When we learn to deal with them in a rational, creative way, the quality of life will improve and personal growth will be accelerated. There arises a need for educational in life-skills, which is called psycho-education or a behaviour management skills education. This need should be reflected in distance education. Understanding oneself and others makes for a more meaningful communication which enriches our life. Deep cocern for others and things, animate or inanimate, leads us to care about others and to help them. It produces curiousity that intensifies inquiry into the unknown and helps us to love others. When we are able to select the best alternatives out of a confluence of those contending for attention, by making a wise and informed decision which weighs possibilities against limitations, we can live a much more productive life. How change comes about, the results and how people react to it pose important issues to be a addressed in our daily life. A clear understanding of what is going on and an ability to make wise, creative preparations for the future are essential to man in our modern society. If services for students can provide some of these life skills, it may deter the alienation and dehumanising effects of distance education.

Development of Programme and Communication System

Much research has been devoted to subject contents and curriculum development. What little research exists in the field of guidance has been done in a haphazard way. There is no scientific foundation behind the current services for students. Guidance is offered usually according to the counsellor's idea of common sense. Very often, it serves administrative expedience rather than the student. Services should be linked to professional knowledge and training instead of a patchwork type showing only a token understanding of students. Little effort is devoted to research, development and planning aimed at maximizing the physical, moral, occupational and social development of an individual. Teachers are not entirely to blame, for policy-makers and administrators are just as responsible for service apathy.

In order to make services meaningful, it is necessary to consider the needs. First, research and development should be intensified to develop programme models which

apply to the problems of distance higher education. The programmes should facilitate the intellectual, physical, moral and behavioural maturity of students on a harmonious and sustained basis. The way to prevent alienation and dehumanization has much to do with the size of the school and classroom. It is also as much related to the demands of students, curriculum and method. Distance higher education requires that the programmes and their implementation be more diversified.

Second, a programme is of no use, whatever it may be, if it is not available to students. There is a need to develop a system which disseminates the programmes to users. The actual implementation of such a programme may be the responsibility of the Department of Academic Affairs, the Student Association or the Student Guidance Centre. Since the students of distance higher education are scattered across the nation, it is not desirable to limit the implementation of the programme to a section within an organization. It is necessary, therefore, to develop a network of dissemination which binds schools, home regional organizations and places of employment into an organic relationship. This system should be such that it transcends spatial and time limitations and is easily accessible to every student. There comes a need to arrange for functional specialization within the system. The Department of Academic Affairs or Student Guidance Centre might undertake the necessary research and development, while implementation could be relegated to the regional study centres and cooperative schools. At the local level, implementation does not have to be a learning centre, any place which offers a learning space will do if learners gather in a sufficient number to justify the dispatch of instructors.

Services for students may be offered in separation from or as an integrated part of the course work. In general, educators gravitate toward the efficacy of the integration approach. Nonetheless, this approach is not free from being attentive to the problems and needs of the individual. In view of the characteristics of distance higher education, the relevancy of a service programme increases in proportion to the ease of accommodating individual problems. If the channel of communication multiples, so much better for the service programme. Counselling should be made available, not only to visitors but also to those unable to visit through telephone and correspondence. In addition, pamphlets and informational material should be produced in the form of a programmed material which addresses problems commonly encountered by students.

Third, one of the reasons for the token treatment of service and guidance is the shortage of professionally trained personnel to administer the programme. Administrators and non-professors are in charge of these services. Since they were not trained for them, their assignments are short and irregular. The frequent turnover of persons hardly gives time for them to be thoughtful and creative about their jobs. Hence, the pressing task is to produce professional counsellors for student services. What makes it worse is that there is not training programme to produce professionals. But merely securing professionals is not enough to provide quality service unless it is accompanied by administrative and financial support. As things now stand, this support seems to be wishful thinking, far from the reality. The problem defied solution through patchwork measures. It requires to involvement and active support of higher authorities and policymakers, preferrably at the national level, based on a better understanding of the situation. In the meantime, some ways to invigolate services for students should be explored at the institutional level. it is essential that the recruitment of competent specialists be backed up by investment in the infrastructure.

Direction of Distance Higher Education and Service for Students

Considering that the major goal of education is to produce a whole person, it behooves higher education, including distance education, to redefine the concept of education an a whole person, it behooves higher education, including distance education, to redefine the concept of education and seek a new value system. This calls for the shift of attention from the teaching of subject matter to the development of the child into whole person. This is the time for human education, which thus far has been given a token treatment, to set its foot firmly on formal education. To humanize education and its process is the mission imposed on educators born into this century. Educators should come up with clearly articulated goals and a master plan to achieve them, if they are to solicit the participation of politicians, industrialists, bureaucrats, social leaders and the public. The educational system is loaded with political, social and economic demands beyond manageability. Failure to implement a structural change responsive to the new societal demands will incapacitate the educational system and permit alienation and dehumanization to continue to dominate the educational scene. As a result, even more serious problems will be spawned, besetting not only educators and students but the society at large.

The services for students is an attempt to restore humanity to education, thereby maximizing the development of the individual potential of all students. Because the process of instilling human character is a progressive one, the effect of these services is difficult to ascertain, particularly in a short period of time. Since the effect is cumulative, the road to self-realization requires a span of time. God's mill turns slowly but it refines grains! This metaphor is more than appropriate for services for students. It will take foresight, meticulous planning and firm commitment to make these services take root in distance education and truly serve the individual to the benefit of students and faculty, as well as the society at large.

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A DISTANCE EDUCATION STRATEGY FOR BANGLADESH

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India

This paper purports to discuss the role of distance education in the context of certain actualities of the third world environments with a focus on Bangladesh. Certain geopolitical and socio-cultural realities of the Indian subcontinent seem to favour distance education networking in more than one ways. In developing countries, emergence of distance education could be looked upon as a process similar to osmosis. It holds a promise of setting in motion a new communicational process resulting in a larger and perhaps more effective system of information distribution through which new ideas, attitudes and understandings might begin to ooze through the layers of the disadvantaged environments.

It took thousands of years for the human population to reach the one billion mark in 1930 but only one hundred years for the second billion, thirty years for the third and a mere fourteen years for the fourth billion.[1] Now that we are five billion 'strong' since July 11, 1987 the major chunk of the world population is to be in Asian countries. In other words, the centre of gravity of poverty, illiteracy and disease is more likely to be somewhere in the Indian subcontinent because it is estimated that India would surpass China in terms of population by the turn of the century. If the total world population were to settle in Australia alone, its population density would be about the same as it is in Bangladesh today. Bangladesh, with its

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* The author worked as Education Systems Specialist on a fact-finding mission to Bangladesh appointed by Asian Development Bank, Manila, November 1984.

1. *New York Times*, March 16, 1980.

population of 95 million[2] and approximately 657 persons per square kilometer, excluding the riverside areas, is the most densely populated country in the whole world (only the urban island nations of Singapore and Hong Kong exceed this).

Most developing countries today have access to various mass media like radio and TV, but the reach of such media varies considerably with the level of development and size of individual countries. Media utilization, too, varies from country to country as well. The potential audience for the mass media in developing countries is huge, predominantly rural and poorly educated. The main emphasis of all educational efforts in a country like Bangladesh is to reach out to a vast number of people with a view to making them more productive at the least cost per person. Mass media are well suited to this purpose.

Bangladesh cannot afford the luxury of accepting distance education just because it is a new idea or an innovation that is being talked about the world over. The high rate of wastage and repetition at all levels of education, the under utilization of instructional capacity and an ineffective public examination system are some of the major weaknesses of the education system of Bangladesh. Any thinking regarding a distance education programme for the country must not only be down-to-earth but productive. Of all the problems facing Bangladesh today, none is so pressing as that of improving the quality of the life of people, the majority of whom live below the poverty line. In view of the realities that exist, it is rather expedient that we take stock of the situation before charting out a strategy to distance education.

Any strategy for distance education in Bangladesh has to be operationally feasible in the first place. Misplaced and misperceived priorities can harm a developing country because the resources are always scant and there is so much to do. It seems that in Bangladesh distance education should address itself to the following areas in order of priority:

1. universalization of primary education and adult literacy;
2. non-formal education programmes to reach out to the masses; and
3. supporting formal education programmes by:
   a. school/college broadcasts; and
   b. teacher training strategies through TV, radio and microteaching modules.

2. Bangladesh Bureau of Statistics: *Statistical Pocket Book of Bangladesh*, 1984.

1. UPE and Adult Literacy

The government is keen to eliminate illiteracy. This clearly reflected in the following:[3]

> 'Only 26% of the population is enumerated as literate and three-fourths of the population are illiterate. A subsistence economy tends to enforce subsistence knowledge and through it the tradition. In this vicious circle economic development cannot proceed at a desirable pace. The experience of those countries in the third world which have enjoyed development success (is that they) have also had a high rate of literacy, though the reverse may not be true, there is no doubt that education is not only a means to knowledge but also molds people's attitude towards life and work. So while striving for attaining universal primary education before the end of the third plan, a substantial reduction is adult literacy must be achieved by the end of 2000 A D.'

The Second Five Year Plan (SFYP) emphasizes the use of mass media to assist and accelerate the process of development. The Plan identifies UPE and the eradication of illiteracy as the two top-most priorities in the education sector. The question is how to use mass media like radio and TV to strengthen the efforts connected with UPE and adult literacy. In order to make the strategy operationally feasible and result-oriented, the following input parameters should kept in view:

1. Radio Bangladesh covers the whole country with national transmissions from Dhaka totalling around 19 hours daily. There are also six regional stations transmitting locally originated programmes. Much of the programming is in Bengali, with some English and minority languages, the latter especially from the regional stations.

2. Television transmission is from Dhaka with some regional relay stations. It was intended that television transmission would cover 90% of the whole country during the period of the SFYP.

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3. Planning Commission: *Thoughts About Perspective* Plan, Government of the People's Republic of Bangladesh, Dhaka, September 1983.

3. The Film Wing of the Film and Publication Department of the Ministry of Information produces films for exhibition at commercial cinemas and in their own 70 mobile cinema units. The Wing has a production unit and a processing and printing laboratory, operating both 16mm and 35mm. The films produced include weekly newsreels and special news, cultural and documentary programmes for the government. There are cinema halls in most substantial population centres, but the cinema remains largely an urban facility.

4. School buildings are used for 4-5 hours a day on working days and are available for full-time use for about 200 days in a year. Furthermore, 400 community schools have been established through bank assistance all over the country.

It should be noted that there is complementarity between universal primary education and the reduction of adult illiteracy. Both these aspects are circular in nature and cross-fertilize each other. Television can be of immense help in literacy efforts. A programme like 'Sesame Street' in the US is an example of how TV can be used for making children literate. TV is now being used for adult literacy programmes in Yemen, and alphabet training is also given by TV.

2. NFE Programmes for the Masses

A distance education network has to be geared to educating the masses irrespective of whether they are literate or not. It would be a good idea to locate one place in every village and name it the 'community centre.' Such a centre could be either a primary or a secondary school, depending upon the quality of building and availability of floor space. A madrasah could also be used. It is hoped that construction of a special buidling for the purpose would be avoided.

Each community centre would have a teacher (from either the primary or the secondary school depending upon availability) in charge of operating a TV set and a transistor radio. The community centre would be open to all, and the person in charge would operate the equipment and be responsible for maintenance as far as the maintenance schemes provide (see later). One TV hour best suited to farmers, workers and landless labourers would be designated as the Sonar Bangla Hour. Bangladesh Institute of Distance Education (BIDE) could take up the responsibility of

achinery and a built-in feedback mechanism for continual mprovement and modification. BIDE might therefore require dditional manpower as well as enhanced capability of the xisting staff and material resources to prepare for the hallenging task.

In the proposal on non-formal education that follows, a letailed note on other non-media aspects of non-formal edu-ation is presented.

3. Supporting Formal Education

It is envisaged that provision of radio and/or TV time on the national network would be relatively cost effective, as the structures of formal education at the primary, secondary and tertiary levels do exist. TV and radio networks are available throughout the country. Bangladesh Institute of Distance Education (BIDE) caters to 1,062 secondary schools, about 424,800 students and 10,620 teachers through its regular radio and TV programmes. It also broadcasts a 40-minute radio programme on subject content daily, which is used both by regular students and by out-of-school youth. BIDE has a pivotal role to play as it has a resource base for all the activities connected with educational technology and software production. It is quite gratifying to note that there is 95 per cent coverage by radio and 85% coverage by the TV network.[5]

Bengali is the language spoken by one and all, although there are dialects and minority languages. This is a truly advantageous position, as it allows production of text-books and support materials in only one language. It also implies that large-scale production of instructional materials would result in reduction of unit costs. A reform injected into the system could have a multiplier effect because every little initiative in the field of education ultimately improves population quality.

The Commission on Instructional Technology, in a report to the President and the Congress of the United States, identified several potential benefits of educational technology, as follows. Technology can:

i. make education more productive;
ii. make education more individual;
iii. give instruction a more specific base;
iv. make instruction more powerful;
v. make learning more immediate; and
vi. make access to education more equal.

In order to gain all the benefits listed above, a well planned distance education strategy should be worked ou with the involvement of the following agencies:

i. Bangladesh Television
ii. Radio Bangladesh
iii. BIDE
iv. Film and Publication Department of the Ministry o Information
v. Bangladesh Broadcasting Academy
vi. The Institute of Graphic Arts

In addition to regular broadcasting sessions for students, BIDE should also develop programmes for teache training. In a report entitled Distance Education in Bangladesh[6] a British Council team suggested the following fo distance education in support of primary school teachers:

1. The recent nationwide programme for the reorientation of primary teachers should be strengthened and extended through a course prepared by BIDE using distance teaching methods.

2. This course should be offered to all primary teachers over a period of four years.

3. A pilot version should be tested with 11,750 teachers, which would then be revised and used with the remaining teachers.

4. The course should last 16 weeks and utilize print, radio, television and workshop/tutorials.

5. National organizations involved in curriculum development and teacher training should be involved in the preparation of the course materials and in the training and provision of tutors.

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5. However, there are 148 persons for each licensed radio and 46 persons for each licensed TV set. Source: Bangladesh Bureau of Statistics, 1984.
6. The British Council: *Distance Education in Bangladesh: An Implementation Study by a British Team*, May-June 1981.
7. 'Microteaching' is a scaled-down encounter wherein the term 'micro' implies that a small content area is taught for about 3-7 minutes to 4-5 students. It also implies 'simulation' in teaching for development of teaching skills like questioning, stimulus variation, giving illustrations, etc.

6. There should be continuous assessment and an end-of-course examination, with the award of a certificate for successful completion.

7. Consideration should be given to the granting of an extra increment or other inducements to those teachers who are successful.

8. There should be pre-course motivational programmes for all teachers.

9. A Project Coordinator should be recruited as soon as possible, followed by the appointment of two subject specialists.

10. Four hundred seventy part-time tutors should be assigned and trained for the pilot cycle, and this number should be increased to 1,000 for the remaining cycles of the course.

BIDE should use microteaching[7] strategies for the training of teachers at all levels, with or without hardware. The training colleges in countries like India and the UK have used this training strategy with a certain amount of success. It can be made very cost effective if closed circuit television (CCTV) is not insisted upon. Research has shown that the efficacy of microteaching is not significantly reduced if CCTV is not used and only tape recorders are used. It must be recognized that microteaching can also be resorted to without any hardware whatsoever; at some training colleges in India this has become a regular practice. BIDE should develop expertise in this area of teacher training and produce modules of micro-lessons for training colleges.

In conclusion, it is suggested that in addition to the one TV hour suggested for non-formal education to reach out to the masses, TV and radio should also be used for supporting ongoing formal education programmes. It should be noted that in 1983 there were 203,000 black and white receivers and 20,000 colour receivers duly licensed[8]. The task of reaching out to 15 million households is colossal, and it presents a challenge that deserves to be met squarely.

8. Bangladesh Bureau of Statistics: *Statistical Pocket Book 1983*, p393.

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NEW DIMENSIONS IN TURKISH EDUCATION SYSTEM WITH ADVANCED DISTANCE EDUCATION SUPPORT: Acikogretim Fakultesi (Open Education Faculty) Anadolu Universitesi

by

Dr Murat BARKAN and Dr Ugur DEMIRAY*

Higher Education in Turkey

Just at the moment there are twenty-nine universities spread throughout the country. The total capacity — keeping Open Education Faculty out of this category — is 393.508. But the demand — in increasing manner — is approx 700.000. That means, traditional higher education system keeps nearly 300.000 students out of the system because of capacity insufficiencies. In a general understanding this problem can be mentioned as the main reason and the source of many social problems which has appeared in Turkey, in the last twenty years.

Institutional Understanding of Distance Education

In a traditional face-to-face education system, students and teachers are required to be in the same classroom for learning to take place. However, today, some changes are inevitable for three reasons: First, the cost of traditional education is very high (per system and per individual), and it is still getting higher everyday. Second, the demand for higher learning is increasing far more rapidly than was the capacities available in the higher education institutions. Consequently, there are serious obstacles in providing students with higher education opportunities in terms of the physical set-ups, the facilities and teaching staff members. Third, the advancements in science and technology, especially the new developments in mass media, are introducing new and more efficient solutions to the mentioned problems.

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With the assistance of the new technological developments in mass media, it became possible to teach the students who are distant from the school and from each other. Thus, the traditional face-to-face education has become a costly alternative which is used only on special occasions where it is required.

Distance education can be considered a system of education which brings an effective solution to the discrepancy between the demand and supply, in higher education, as well. It consists mainly of the use of communication technology with some face-to-face education, whenever it is necessary. This method makes the education of great masses possible.

In distance education, teaching or instruction are extented to homes of the students with the help of advanced educational communication technologies. That is one of the reasons for being accepted as the most contemporary method of the century. Distance education was considered to be a powerful tool in adult education, too. However, the application in Turkey was started to provide higher education to those who could not or purposefully did not attend to one of the already existing regular higher education programmes.

After a series of observations and research it has been made clear that the quality of instruction provided in the programmes of distance education is equivalent to that of the traditional higher education applications.

And the total population of the people in the age of higher education (20-24) which represents the total potential of demanders are 5.368.146.

Anadolu University Open Education Faculty

The Open University Faculty is a contemporary higher education institution which carries out various important educational administration in Turkey.

Eskisehir Academy of Economics and Commercial Sciences, which founded the core of Anadolu University, has always been a rapidly developing institution. The academy soon became popular with it's use of contemporary educational communication technologies, scientific research and efficient work. By this way the Academy soon gained the prestige of an education institution responsible for its

immediate and far-reaching environments. Consequently, the academy became the centre for scientific knowledge for newer educational technologies. The use of modern educational communications technologies to increase the rate of learning and the productivity in education was one of the chief functions performed by the academy.

Preparations for distance education started at the Academy in the 1970s. First, face-to-face classroom education programme were started to train qualified personnel for the new attempt in distance education. The School of Cinema and Television was the first programme of this kind which came into effect as a part of the Academy in the same year. The name of this school was then changed to the Faculty of Communication Sciences.

A closed-circuit television system was made ready for the try-out broadcasts in 1972. A new studio was prepared with the advanced television equipments in 1973. The Turkish-Cerman technological agreement was signed for the development of Educational Television and Radio Production Centre (ETV), in 1976. The latest printing technologies were imported and the organizational network throughout the country was established. As a result of these developments, educational television was started as an effective medium for group instruction by a highly qualified team of technical personnel and academic staff members gathered at the academy.

A series of national and international saminars, and publications by the Faculty of Communication Sciences laid the academic foundation for 'open education,' in Turkey. The faculty supported the new move by a variety of theoretical and empirical studies, which resulted completion of a well-formed foundation for the distance education system in terms of academic and technical requirements.

After the 1982 higher education reorganizations, the Open Education Faculty was founded and began to offer two distinct types of higher education programmes: The face-to-face 'classroom' education programmes in (1) Cinema and Television, (2) Printing and Publishing, (3) Communication Arts, and (4) Educational Communication and Planning, and the distance education programmes in (1) Undergraduate level; Economics and Business Administration; (2) Adult Education; Junior College for Teachers Training; (3) Adult Education; Vocational In-service Tele-training for Private Sector; (4) Secondary Education; Televised Summer Courses for Lycee Students; (5) Overseas Education; Open Education

for Turkish Citizens Living Abroad; (6) Video Education; Support for Foreign Language (English) Teaching.

Anadolu University was founded in 1982. The already existing Academic of Economics and Commercial Sciences (founded in 1958), and Engineering and Architecture (founded in 1976), were reorganized as faculties of Economical and Administrative Sciences, and Engineering and Architecture, respectively, under the new university.

In 1982-83 academic year, the face-to-face education programmes in the Open Education programmes of the Open Education Faculty started with 25, and the programme in distance education with 29.479 students. Sixty of the 280 graduates of the face-to-face education programmes were employed at the Educational Television and Radio Production Center (ETV) and the other departments of the Open Education Faculty as; directors, director assistants, directors of photography, cameramen, education planners, studio directors, vision mixing operators or educational media planners and course designers.

a. **Undergraduate Level: Economics and Business Administration**

Two programmes on economics and business administration are offered in the distance education programmes of the Open Education Faculty.

b. **Adult Education: Junior College for Teacher Training**

Beginning with the 1985-86 academic year, the Open Education Faculty started a new programme of higher learning for the elementary school teachers who were regular Lycee graduates (graduates of a teacher training school which was six years after the first five or three years after the first eight grades).

The programme was a two-year higher education programme which was roughly equal to junior college education with some additional courses.

c. **Adult Education: Vocational In-service Telc-training for Private Sector**

Depending on the demands of private sector companies, Open Education Faculty carries out some in-service programmes on the specific fields of education, employing the necessary media. Upto now 13 programmes have

been designed, developed and applied to over 1000 employees of five companies, using; printed materials, video or TV and face-to-face tution technics.

d. **Secondary Education: Televised Summer School for Lycee Students**

Beginning with the 1987-88 academic year the Open Education Faculty has also began to offer televised summer courses for Lycee students who did not or could not progress in the regular school year. The purpose of these courses was to supplement their school instruction in the respective subjects and prepare them for the make-up and/or university examinations.

e. **Overseas Education: Open Education for Turkish Citizens Living Abroad**

The West Europe Project (WEP) of the Open Education Faculty began in the 1987-88 academic year, after six years of experience in the home country. The aim of the project was to meet the educational needs of the Turkish citizens working and/or living in the countries of West Europe, with the already existing programmes as economics, business administration, and teacher training.

By the end of 1987, the number of Turkish workers and their dependents amounted to 2.04 million people, out of which, 1.43 million lived in Federal Public of Germany.

European employment of Turkish population has created a considerable degree of socio-economic problems of migration. One of the problems, indeed was (and still is), the sphere of education.

Since distance education is traditionally considered to be one of the devices to be employed manipulating this sphere, as a pilot project, Anadolu University Open Education Faculty offered an alternative for the solution of educational demand supply discrepancy.

f. **Video Education: Support for Foreign Language (English) Teaching**

In fact, the main principle in distance education systems is to employ multi-functional media in terms of education to reduce the costs-prices.

In terms of video being used as an educational communication medium in the education system, it is seen that video is a multi-functional and more cheaper means.

Video having specific qualifications has some specific features to be taken into consideration in terms of limitations and objectives when used in OEF's Video Education Centers Project. The main objective is to support students in learning Education and the main limitation is about the number of the Video Education classes. As video education is in the pilot project stage it is not widespread to all bureaus yet, but only eight over twenty-two of them. The already existing Video Education Centers are a follows; Denizli (Academic Advising Center does not exist), Konya, Samsun, Trabzon, Kutahya (Local Student Information Bureau does not exist), Afyon (Local Student Information Bureau does not exist), Gaziantep and Malatya.

1. STUDENT RELATED INFORMATION

1.1 Undergraduate Level: Economics and Business Administration

The economics and business administration programmes offered by the Open Education faculty are four-year undergraduate programmes leading to the Bachelor's Degree in the respective fields. The students of the Open Education Faculty are enrolled in these programmes on the basis of their scores of the university entrance examinations and their individual preferences.

The number of students enrolled in economics and business administration programmes are as follows:

Academic year	Total No. Enrolm.	Graduates
1982-83	29.479	------
1983-84	40.617	------
1984-85	65.617	------
1985-86	97.313	4.658
1986-87	106.860	6.114
1987-88	113.160	5.662
1988-89	256.848	6.438

The evidence accumulated so far indicates that the distance education programmes offered by the Open

Education Faculty represent a major break-through for the students with the following qualifications:

- They are living especially in the rural areas of the educationally deprived regions of the country.
- The are single or married and have children.
- They are living either in comfortable houses with many appliences or living in the ghettoes where almost none of these exists.
- They are either working on a full-time basis or not working at all.
- They are living in the families with the lowest income bracket and suffering the shortage of the modern communication devices such as radio, television, etc.

The evidence indicates that the students in the distance education programmes are those who have to try hard to achieve; and, interestingly enought, they do so, in general. This reminds the assertion that, 'In distance education, the ones who succeed are those who really need it!'

It is worth noting that approximately two-third of the students in distance education programmes are working. The more interesting side of it is that these students are also successful in their school work. It is an extremely valuable experience for them to carry out the two sets of responsibilities simultaneously and with good results!

The Open Education Faculty gets its motivation from the belief that, 'If both the school and the students do their best there will be nothing to prevent their success!' And it seems it does reightly so.

1.2 Adult-Education; Junior College for Teacher Training

Elementary school teachers used to be trained in the regular schools until 1973. A law passed that year requiring two years higher education for teaching at the elementary school level. As a result of this change, both the regular school and the two-year teacher training college graduates were working at the elementary schools. The governmental later, decided

that additional training was necessary for the regular teacher school graduates. The National Ministry of Education Youth and Sports asked the help of the Open Education Faculty to carry out the necessary additional training.

The teacher training programme for upgrading the training of regulary school graduates went into effect in the 1985-86 academic year. The numbers of elementary school teachers participating in the project were as follows:

Academic year	Total No. Enrolm.	Graduates
1985-86	46.774	------
1986-87	130.000	36.802
1987-88	93.198	83.140
1988-89	No Registration	10.058

1.3 Adult-Education; Vocational In-service Tele-training for Private Sector

With a general statement, military personnel (over 200 techicians); labourers, fire extinction team and technicians of TUPRAS, OIL PROCESSING INDUSTRIES: managers, banking officers, sales team of SUMERBANK and the sales department employees of PASABAHCE BOTTLE and GLASS INDUSTRIES were trained by using the methods developed in distance education technics of the Open Education Faculty.

1.4 Secondary Education; Televised Summer School for Lycee Students

The target mass are the ordinary secondary education (Lycee) students of Turkish Education System who needs to be supported and prepared for the final examinations or for the university entrance examinations. As the programme is opened to all, registration is necessary.

1.5 Overseas Education; Open Education for Turkish Citizens Living Abroad

The students who live or work in West Europe countries and who are registered in the undergraduate programmes (economics and business administration) and the Adult Education (Junior College for Teacher Training) are the students of Open Education for Turkish Students Living Abroad.

The number of students enrolled for the OEF's first year amounted to 2098. According to the student profile analysis based on those who were matriculated in these programmes; 87% FRG, 5% Netherlands, 3% Switzerland and the rest from France, Austria, Belgium, Denmark and England.

As it is observed from the results of the students identification questionaires, professional profile of the students clearly indicates that this action provides a typical higher adult education for target population.

1.6 Video Education; Support for Foreign Language (English) Teaching

Simply, the objectives of the Video Education Centers are: to look if foreign language (English) teaching is convenient or not when servied in the video education classes at the local students information bureaus; to obtain an audiovisual instruction alternative for the working students to support their level of English who are missing to watch educational television programmes — although they are not working; to obtain a supportive audiovisual foreign language instruction in English for those who require to raise their level of English language in their professionals fields.
Upto now, more than 2500 open education students made use of these programmes.

Video education is only for the use of OEF's undergraduate level students (students of economics and business administration programme). Each video education class contains 20 students for one period of one level.

2. MEDIA AND METHODS

2.1 Undergraduate Level; Economic and Business Administration

The instructional materials used by the Open Education Faculty consist of printed materials sent out to the students, television and radio programmes broadcast by the Turkish Radio and Television. These materials are supplemented by the services provided at the local face-to-face teaching centres, local students' information bureaus, and the newspaper 'Anadolu.'

Printed Teaching Materials

The textbooks consist of learning units. Each unit represents a weekly assignment for the student. The units start with an outline of what is to be learned and suggestions for the learner. Within the text, important concepts, rules, relations applications and methods and are presented in a manner that they provide students' attention. The new concepts introduced in the unit are reiterated at the end, and suggestions are made for further reading. The unit ends with a test. All of these instructional measures are aimed at providing the reader with the best opportunities possible to gain control of his or her learning. In this system it is very important for the student to take full responsibility for his or her own learning.

Radio and Television Programmes

Open education is not totally dependent on the radio and television broadcasts. However, television programmes have a very important place among the other means used. At least one programme is televised for each course, in each year. These programmes are sequenced to match the progression in the textbooks. In addition to the television programmes, radio programmes are used for the foreign language courses.

In televised teaching, visual and audial signals are used simultaneously to transmit information. That is why television is one of the most effective instruments of the instructional processl.

Research findings indicate that, with the help of television, students' learning of new concepts is improved about 30%, their attention about 35%, and their perseverence about 50%.

In traditional education, teacher's lectures are the primary means in transmitting new information. Lectures however, are not capable of carrying a definite image. The use of television offers the potential of showing directly the information to be transmitted.

In preparing a television programme, the first step is the indentification of the main points to be transmitted. These are the basic concepts, rules, relations, applications, and methods to be taught in the programme. The second step is the clarification of these with the teachers.

The directors and the teachers are gathered for script-writing, set designing and rehearsing the programme to be preapred. Then studies are made on lighting decoration, graphic materials, sound, locations, and the studio.

A television programme is the product of team work. A number of experts as well as special service departments take part in such a team.

Educational television and radio produces approximately 300 television programmes and revise the same amount as well in each academic year.

Academic Advising in Local Teaching Centres

The local teaching centers are intended primarily to meet the need for face-to-face instruction. Academic advisers chosen from the staff members of the local universities, provide supplementary face-to-face teaching and academic advising, as necessary.

There is at least one academic adviser for the courses in each local teaching centre.

At the beginning of each academic year, a guide is set out to inform the students about the times and places of the local teaching services. The newspaper Anadolu is used to inform students of any changes in the schedules. In addition the student guide is issued each year to help the student in making use of the local teaching services.

The Academic Advising Centres of the Open Education Faculty are following:

Anadolu University (Eskisehir, Afyon, Kutahya,Lefkosa); Akdeniz University (Antalya): Ankara University (Ankara); Ataturk University (Erzurum); Comhuriyet University (Sivas); Cukurova University (Adana); Dicle University (Diyabakir); Dokuz Eylul University (Izmir); Erciyes University (Ayseri); Firat University (Elazig); Gazi University (Ankara); Hacettepe University (Ankara, Zonguldok); Istanbut University (Istanbul); Istanbul Technical University (Istanbul); Karadeniz University (Trabzon); Marmara University (Istanbul); Ondukuz Mayis University (Samsun); Selcuk University (Konya); Uludag University (Bursa, Balikesir).

The Newspaper 'Anadolu'

The function of the newspaper Anadolu is to provide a supplementary communication network between the faculty and it's students all over the country. The newspaper is distributed to all students through the mail.
The newspaper Anadolu deals with:

- Subjects or incidents of the university and the faculty.
- Subjects which are related to the student — faculty relations and/or the instructional services provided by the faculty.
- Relationships of the faculty with it's environment.
- Academic problems of the students.
- Problems faced by the students in their interactions with their environments.

The students and the teachers of the department of Printing and Publishing take the responsibility for the preparation of the newspaper.

Examinations

The examinations made by the Open Education Faculty are all summative type. They are aimed at measuring the levels of learning at the middle and at the end of the courses. A make-up examination is also made for each course.

A short test is provided in the textbooks. The students are expected to take these tests at the end and try the relevant section of the text again for any wrong answers. Those who cannot correct themselves are expected to consult with the academic advisers at the local teaching centres. At the end of the first half of the units in each course, a mid-term examination is made, covering the basic learnings expected to take place in all of those units. A multiple-choice test of approximately 40 items is used for this purpose. The answer sheets are read and scored using optical mark readers, and the scores are transferred to students' permanent records. The mid-term score is assigned a weight of 30% in determining the final level of achievement.

A make-up examination is given to students failing to achieve at a prespecified level. The make-up examination for a course is similar in content to that of the final, and it is used in the same manner.

All examinations are carried out in cooperation with the Student Selection and Placement Center (OSYM) in the provincial capitals where Open Education Faculty bureaus are located.

Local Student Information Bureaus

The Open Education Faculty Bureaus are organized to meet the demand for student services. They also play a very important role as a channel of communication between the distant students and the faculty. The bureaus of the faculty, at present, are the following:

Central Bureau: Eskisehir
Service Bureau: Adana, Ankara, Antalya, Bursa, Denizli, Diyarbakir, Elazig, Erzurum, Eskisehir, Gaziantep, Istanbul (One in the Anatolian, other one in the European part), Izmir, Kayseri, Konya, Malatya, Samsun, Trabzon, Van, Zonguldak, Lefkosa, (Turkish Republic of Northern Cyprus).

2.2 Adult Education; Junior College of Teacher Training

Specially made televised courses, printed materials and examination organizations are also employed in this type of adult education. But, academic advising, newspaper "Anadolu", local students information bureaus are not served for teacher training.

2.3 Adult Education; Vocational In-service Tele-training for Private Sector

Depending on the requirements of the types of the courses, and the suggestions of the demanding companies, any of the printed materials, TV or radio broadcasts, vide programmes or etc are employed when necessary.

2.4 Secondary Education; Televised Summer School for Lycee Students

Only television is used for this unit. The other channels are not applicable.

2.5 Overseas Education; Open Education for Turkish Citizens Living Abroad

The instructional materials prepared for one education (economic and business administration) and teacher training programmes at the central faculty are sent to the Student Information Bureau at Cologne, Federal Republic of Germany and than distributed to the target students. The only exception is that the television programmes are in video cassettes. A special newspaper is also being published. Also, face-to-face education is applying only for economic and business administration programmes.

The examinations for the West Europe Project were carried out in the following ten centres:

Federal Republic of Germany	Cologne (The WEP Student Information Bureau)
	Frankfurt Information
	Hamburg
	Berlin
	Munich
Switzerland	Bern
Belgium	Brussels
The Netherlands	The Hague
France	Paris
Austria	Vienna

2.6 Video Education; Support for Foreign Language (English) Teaching

The first step is preparation stage. Preparation of classes, desks, noise reduction/isolation and other physical or technical preparations like video players, screen and all necessary attachments, teaching member staff preparations are also done in this first stage.

A 'pre-level-test' of hundred question — including the subjects of the level courses is given to each video education student to point out their level of foreign language at the beginning of a period.

Then video education for foreign language teaching (or learning) starts. At the beginning of each unit — in a daily session — a 'pre-unit-test' of ten questions — including the subjects of the daily — is given to each student. This test is asked to be answered in 10 minutes. Then the tutor pushes the button and lets the

unit flow on the screen. And if he finds it necessary to pause or rewind and replay a sequence, he does it. As well as the instructor, students can also ask the instructor to pause or reshow a sequence for discussions and consolidate their learning by repetitions. Video education goes on for nearly one hour per a unit. Then, at the end of each unit per-a-daily session a 'post-unit-test,' of the same ten questions as the pre-unit-test, is given to video education students. By this way the variations in students foreign language knowledge level is easily foundout. The main source of instruction is not the instructor/tutor as it is in the traditional educational systems, but the video information.

At the end of four to eight weeks long video education period, every student in each two level is given a 'post-level-test' including the same hundred questions as pre-level-test. By this way:

- The general foreign language level of a video education student can be measured and controlled in period basis.

- The sufficiency of video education lectures in the mentioned system can be measured and controlled in daily basis.

3. RESEARCH

At the beginning of each academic year questionnaires are applied to each registered or re-registered student. At the same time many distance education researchers make use of the results of those questionnaires. Actually they are the people who prepare those questionnaires. Besides these, some specific researches are also being carried out as it is done in video education centres.

CONCLUSIONS

In the past five years the open education programme at Anadolu University has already more than doubled the number of students in Turkey who now have access to higher education. Although there are no current plans to increase the number of students enrolled, the quality of programmes is constantly being imporved. From its early skeptical reception in 1982, open education is achieving a position of respectability in Turkish higher education. It would be of

interest to explore, in a future paper, the political and social elements which combine to create the current receptive environment for implementing open education as an integral component of the higher education system.

Imaginative leadership in a favourable political environment have led to the ambitious implementation of the educational reforms of 1981. Results have produced the first three open education programmes in Turkey. The first course of study, degree programmes in business administration and economics, has paved the way for other applications. With over 100,000 students enrolled in this programme, open education is providing successful because technologies such as computerized examinations and television programmes make this type of mass education possible. Programmes are systematically being developed using principles of instructional design to make effective use of these technologies.

A second application, the Primary School Teacher Training Project also enrolled over 100,000 teachers throughout Turkey and is proving successful in providing in-service training. The third application, Training Turks in Germany, began operation in 1987.

It is hoped that other programmes similar to these can be developed to further the educational goals of the 1981 reforms to eliminate inequalities in education. It is anticipated that as people begin to see the benefit and value of open education for providing mass education, new applications will be developed. If these are viewed by the public as meeting their nees, other programmes can be initiated in many needed areas of training. By using systematic procedures and improved technologies, Turkish education can continue to assist in the modernization of Turkey. Despite the budgetary restrictions which confront all developing countries, Turkey is seeking new ways to use available technology in the most cost effective way. The venture is both exciting and challenging.

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RESEARCH TRENDS AND REFORMS IN AMERICAN TEACHER EDUCATION: ITS IMPLICATIONS FOR PAKISTAN

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Introduction

A strong current of criticism and reform in education has emerged that emcompasses not only the concepts and processes of education at various levels, but also the doctrines and methods of teacher education. Consequently, the debate on the nature and structure of teacher education has become intense among the public, intelligentia, state legislatures, professional organizations and colleges of education. This has prompted a renewed search for alternative models of teacher education and sustained efforts to modify the existing modes of teacher preparation.

One of the positive effects of this debate is that leaders in education recognize the importance of teacher education. This means that any reform in education is incumbent upon the quality of teachers which in turn is contingent upon the quality of teacher education programmes and the prospects and promises of working conditions in the schools of the United States.

The efforts of the educational leaders, particularly those involved in teacher education, reflect a new vision of teacher preparation, a vision of optimistic professionalism aimed at the consolidation of teaching as a discipline and a profession. There is a renewed faith in the capabilities of the universities to produce teachers who are professionally competent, intellectually mature and personally dedicated to the improvement and betterment of human conditions. There is a general recognition that the task is arduous and needs concerted and collaborative efforts of the universities, state agencies, working teachers, local education agencies and professional organizations of teachers.

The New Beginning

The national concern for the quality of education prompted by the publication of *A Nation At Risk* in 1983 caused an intense professional activity among scholars to focus on teacher education and look closely at its components, for their relevance, cogency and conceptual validity. Consequently, three major reports have emerged with recommendations to improve the preparation of teachers. The groups, instrumental in the preparation and publication of these reports, included the National Commission for Excellence in Teacher Education appointed by the American Association of Colleges for Teacher Education, the Task Force on Teaching as a Profession established by the Carnegie Forum on Education and the Economy; and the Holmes Group, a consortium of the deans of education and chief academic officers from the leading comprehensive research institutions from around the country. All this is generating a great deal of discussion and controversy.

The common thread of ideas that binds these groups together represents a harmonious mix of liberal education, mastery of subject discipline, professional education and an arry of field/clinical experiences. The prescriptions of each of these scholarly bodies vary in details as well as the proportion of the ingredients, and yet their concern for excellence of American education and teacher education is clearly discernible. All of them agree that programmes of teacher preparation need improvements which can be accomplished through the collaborative efforts of those concerned with the policies and practices of teacher education. They differ in their emphases and the means to achieve their specific goals.

The National Commission on Excellence in Teacher

Education, in its efforts to solidify and upgrade teacher education, supports patterns of professional education based on solid research (Magrath, 1986). The Carnegie Task Force emphasizes changes within the school designed to make it an attractive and challenging place for teachers. The task force also recommended a careerladder and a national system of teacher certification (Tucker, and Mandel, 1986; Jacobson, 1986). The Holmes group focused more on rigorous standards of entry into teacher education programmes, completion of a strong professional programme and licensing of teachers based upon very stringent criteria of accomplishments. The group also recognized an interdisciplinary nature of teacher education and excellence in the quality of teacher educators and students of teacher education. Both the Carnegie and Holmes reports also recommended graduate level programmes of teacher education, differentiated patterns of staffing in schools and the recognition of teaching as a profession (Murray, 1986; Case, Lanier and Miskel, 1986).

For any scholarly document the debate is inevitable. The Carnegie report has been criticized for being unrealistic and superficial. The particular recommendations under attack deal with the abolition of undergraduate programmes and the initiation of a national certification of teachers (Jacobson, 1986; Turner, 1986). The Holmes report has been blamed for ignoring the contextual framework of American education, giving graduate status to undergraduate education of teachers, and proposing simple solutions to complex problems (Soder, 1986; Nussell, 1986; Tom, 1986). Even those who support the Holmes report have raised questions concerning the meanings and intentions of the recommendations as they relate to admission standards, minority representation and collaborative modes among academic departments of the institutions of higher learning (Imig, 1986; Rentel, 1986).

Field Experiences

One of the recommendations that runs through the three reports and has been a subject of discussions in the professional circles, particularly in the eighties, is that of field experiences being an integral part of pre-service teacher education (Boyer, 1983; Goodlad, 1984). Since this is one of the major trends of teacher preparation it needs special attention.

Beyond the conceptual image of field experiences being those activities perfomred in an actual school setting during one's pre-service teacher education, the organizational and management patterns of such experiences vary

according to the context of different learning environments. In some cases they extend from laboratory settings to classroom situations in order for teacher trainees to try out specific skills. In other cases such experiences are provided in a sequential form during the four years of teacher education. There is, however, a general agreement among experts that field experiences are specific rather than general in nature and must supplement the liberal and technical knowledge imparted by the teacher education institutions (MacNaughton, 1982; Pickle, 1984).

The sequential nature of the field experiences is essentially the arrangement of learning tasks performed by the pre-service teacher relevant to the course-work at various levels of teacher education. The initial field experiences, during the freshman year, are integrated with an introductory course in education and generally constitute observation of classroom activities and/or performing non-instructional tasks such as distributing materials, taking attendance or locating sources. The pre-service teachers are typically placed in an elementary or secondary school for a few hours a week.

The next step in the sequence represents a gradual induction into the classroom with tasks of both instructional and non-instructional nature. The instructional tasks include activities such as grading papers, reading stories to groups of pupils, and conducting tutorial sessions. The non-instructional duties involves proctoring tests, monitoring hallways, supervising lunchrooms and playgrounds and other such activities.

The next phase of the field experience, as a prelude to student teaching, provides opportunities for the teacher education students, usually in their final year of training, to demonstrate and refine skills of teaching in conjunction with generic and specific methods courses. They are encouraged to try out their teaching skills in actual classroom situations.

The concluding field experience is widely known as student teaching. The main purpose of this traditional phase of teacher education is to help the student-teacher to gradually assume the full functions of a practicing teacher (Laine and Tanveer, 1984). This is a phase of active participation in the teaching/learning process with willingness and enthusiasm on the part of the prospective teacher to develop and experiment with new ideas, materials and techniques of planning, instruction, motivation and evaluation.

Student teaching generally involves from 300 to 500 clock hours of full-time experience in an actual classroom. Observation quickly expands to classroom assistance, tutorial and small group teaching, and, eventually, total group instruction. Of course, the major component of this responsibility is a complete assumption of the instructional role. It becomes more distinct as the student-teacher takes charge of diagnosis, selecting materials, remediation, and decision-making for a wide variety of pupils.

Trends At A Glance

The field experiences, therefore, constitute a major trend in teacher education. Some of the other trends that have influenced and in some cases reshaped teacher education and will continue to affect the preparation of teachers in the years to come have been synthesized above in reference to the three reports cited in the preceding sections of this article. These are summarized below along with a few others identified by experts in the professional education of teachers:

1. Teacher education is recognized as a means of improving the quality of education in the society.
2. There is a sense of urgency in the improvement of the quality of teachers and, therefore, the approaches are multifaceted and comprehensive to include pre-service and inservice teacher education as well as the working conditions of teachers.
3. A pragmatic approach to teacher education is evident in determining the essentials of teacher education. Newer models of teacher education are based upon the functions, responsibilities, challenges and realities encountered by teachers.
4. An experimental mix of knowing and doing is characteristic of several models of teacher education. This envisions a strong emphasis on subject matter integrated with relevant and cogent components of professional experience.
5. A close collaboration among the persons and agencies responsible for providing specific knowledge and skills is imminent for the success and efficiency of teacher education programmes.
6. Liberalization of teacher education or a vital component of liberal education for the prospective teacher is gaining significant momentum.

7. Alternative modes of integrating bachelor and graduate level teacher education seem imminent. It is possible that teacher education will be extended to five years or upgraded to graduate level. Both Carnegie and Holmes groups favour a graduate level teacher education.

8. Clinical role of the teacher educator is emerging as a new and potential development. This will bring the faculty in the colleges of education closer to the classrooms of elementary and secondary schools.

9. The teachers in the classrooms of American schools are being viewed as important agents of change and improvement in education, and the betterment of their working conditions and their participation in educational policy-making are being strongly encouraged.

10. National certification of teachers continues to be an issue that will generate a substantial debate over the years.

Implications For Pakistan

Transportation of ideas from one society to another has become more common place in this era of rapid communications. The ideas, however, have to be translated and transformed so that their adaptability to a new situation is feasible and fruitful. Some of the ideas discussed above have the potential to change and improve various types of teacher education situations. Obviously, their generalizability will be contingent upon a multitude of social, political, and cultural factors indigenous to a developing Islamic society. With this in veiw, the following implications will be relevant to the contemporary educational scene in Pakistan:

1. Improvement in education should start with steps leading to excellence in teacher education, since it is the quality of the teacher that will ensure the success of academics at the various levels of education.

2. Teacher education is becoming a science in its own right. Professional models of teacher education that promise relevance and effectiveness must be based upon scholarly debate and scientific research.

3. Currently in Pakistan teacher education is provided in most cases after one gets a liberal arts degree. Such a model is being studied and developed by the consortium

of institutions participating in the Holmes Group. This strong academic background, proposed in *Tomorrow's Teachers* (1986), is intended to improve the quality of those entering the teaching profession. The results of such an effort can stimulate discussion and generate ideas for change in the teacher education of Pakistan.

4. Each of the essential components of teacher education namely, liberal education, subject matter knowledge, professional education and field experience, with an appropriate mix and balance should form part of any viable programme of teacher preparation in Pakistan.

5. Field-experiences designed systematically and implemented cooperatively by the teacher educators and school personnel will enhance a vital relationship between theory and practice of teacher education. Student teaching as the only form of field experience is becoming outmoded.

6. National level activity of the scholars in education and other fields of knowledge directed towards the clarification and refinement of educational goals and the means to achieve them seems productive in the process of Islamization of education and the unity of thought that entails such a process.

7. The common message that underlies the reforms and trends of teacher education in the eighties represents a renewed dedication to education as a means of improving the contemporary human condition and the teacher plays a vital role in this process. What is needed is a teacher with competence and commitment who fully understands the aspirations of an Islamic social order and effectively transmits its ideals to the future generations of Pakistani children.

In summary, there are several generalizations inferred from the American experience that can be effectively used in the educational context of the Pakistani society. The conditions under which these generalizations could be applied productively and creatively would have to be studied in a systematic way and in a spirit of collaboration among those who are involved in the development and implementation of educational policies and practices. A continuous search for viable alternatives of teacher education seems imperative. This search needs a strong commitment and support of scholars and practitioners of education in Pakistan.

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EXPERIENTIAL LEARNING IN THE PREPARATION OF PROFESSIONAL TEACHERS

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Introduction

In an attempt to take advantage of the new knowledge in social sciences, psychology and technology, and the research findings on effective and experienced teachers, the Institute of Education, Singapore has developed a cirriculum with a strong focus on the practical knowledge and experience of the student teachers particularly during simulated teaching practice (microteaching) or real classroom teaching practice (macroteaching). This training programme for both graduates and non-graduates is entitled the Practicum Curriculum (diagram 1) with practicum at the centre of the teacher education programme. Closely related to the practicum are the core courses called the Principles of Educational Practice (PEP/E) and Practice of Educational Principles (PEP/C). In addition, the graduate student teachers major in two subject disciplines while the non-graduate student teachers study a range of subjects that are normally taught at primary school level, for example, English Language, mathematics, science, social studies, art and music. The Practicum Curriculum was implemented first at the graduate teachers' level in July 1986 while the non-graduate student teachers started with it in July 1987. The programme for graduates is one year long while that for the non-graduates is two years.

The Practicum Curriculum is based upon a pedagogical model devised by the IE Director, Dr Sim Wong Kooi. It takes into account the dual roles of the trainee as a student and a teacher during the period of training and his/her continual involvement and interaction with the essential components of education, namely, objectives content, students and teachers and environment (diagram 2). These elements are similar to Schwab's (1973) "educational common places". In the context of Singapore's centralized educational system, the objectives of education are highlighted as the government sets the educational goals and directions, and the schools systematically implement the policies. The content comprises

the knowledge, skills and values of the educative experience that meets the criteria of excellence of policy-makers in the Ministry of Education and the practitioners in schools. In addition to knowing the curriculum and determining the content of the unit or lesson, the teacher must also select modes, media and materials, plan and prepare suitable learning tasks for the students and evaluate their learning. The student must choose to learn and be prepared to learn; learning is not a shared responsibility. The environment includes not only the community of parents and school neighbours, the education system, and school facilities but also time such as the sequencing of content and timeliness of communication. During his/her professional training, the IE student-teacher has the opportunity of learning the knowledge techniques and values of teaching and applying the newly acquired knowledge and skills in practice teach situations almost immediately within IE or a few weeks later in schools.

This paper will focus on the core which emphasizes experiential learning in order to enhance the understanding and operation of the linkage between educational theory and practice, and the stages of development of this emphasis. It will, in particular, describe the design and teaching of generic pedagogy within the Practice of Educational Principles (PEP/C) courses as it is related to the entire curriculum.

The design of the course is based upon three assumptions. Firstly, the knowledge the students teacher, in particular the graduate, brings to the programme - knowledge of at least two disciplines which they have studies in the university. Secondly, the student-teacher has at least 12 years of experience in various classrooms observing and participating in the learning process. This means that the student-teachers have valuable practical knowledge and experience in a number of elementary and secondary classrooms that can be recalled, imitated and used in their own teaching. Thirdly, there are generic teaching knowledge and skills that would help preservice students analyze and interpret student abilities, achievements, needs and cultural background; design appropriate instruction based on the above analyses; conduct instruction that facilitates learning; manage the classroom; promote effective classroom communication; evaluate learning; and arrange for counselling and referral opportunities. To maximise the acquisition of generic teaching knowledge and skills, it is necessary for the student teachers to have opportunities to recall their previous knowledge about the classrooms and directly experience further the teaching roles and tasks either as an observer and/or as a participant during training.

THE PRACTICUM CURRICULUM

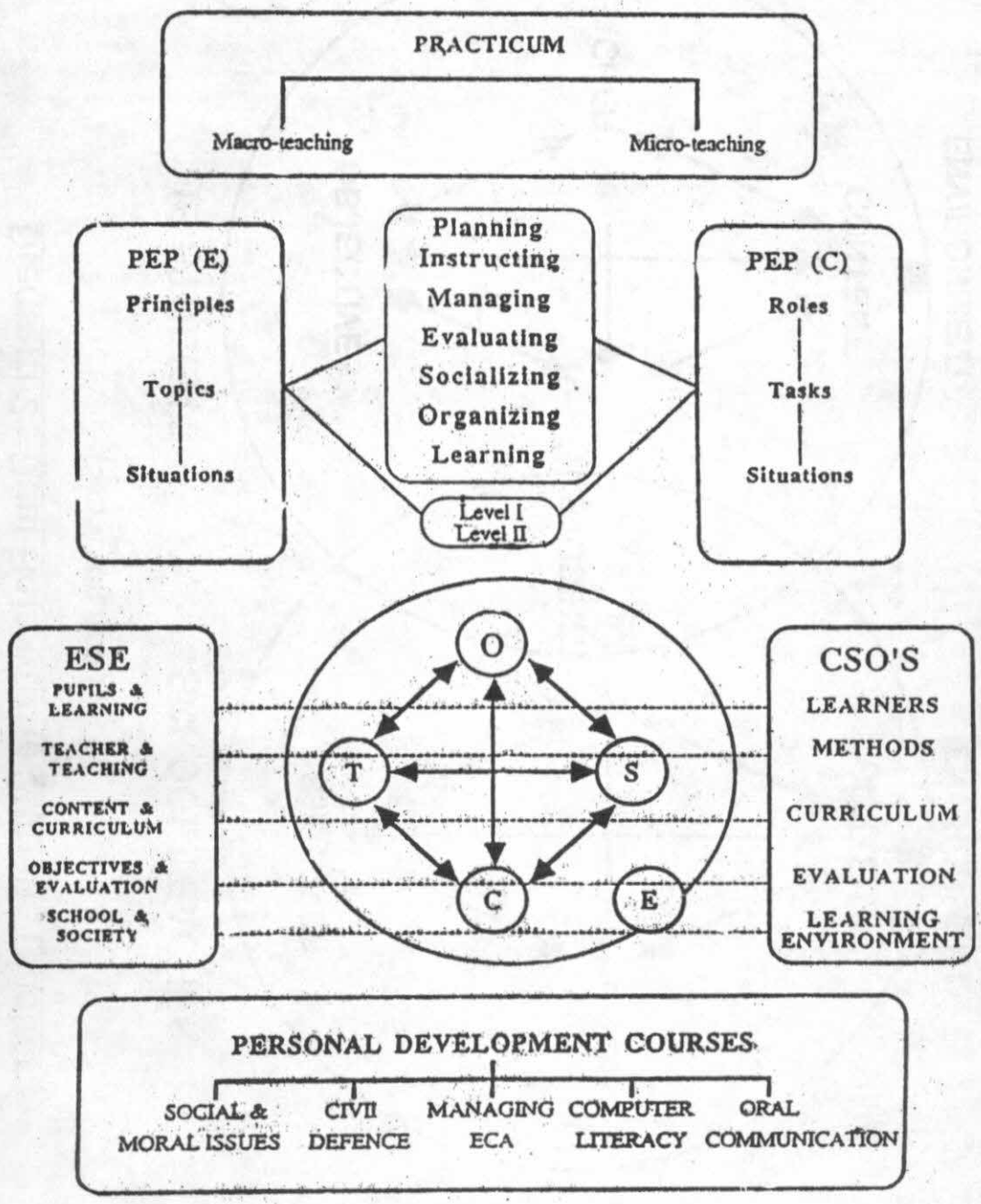
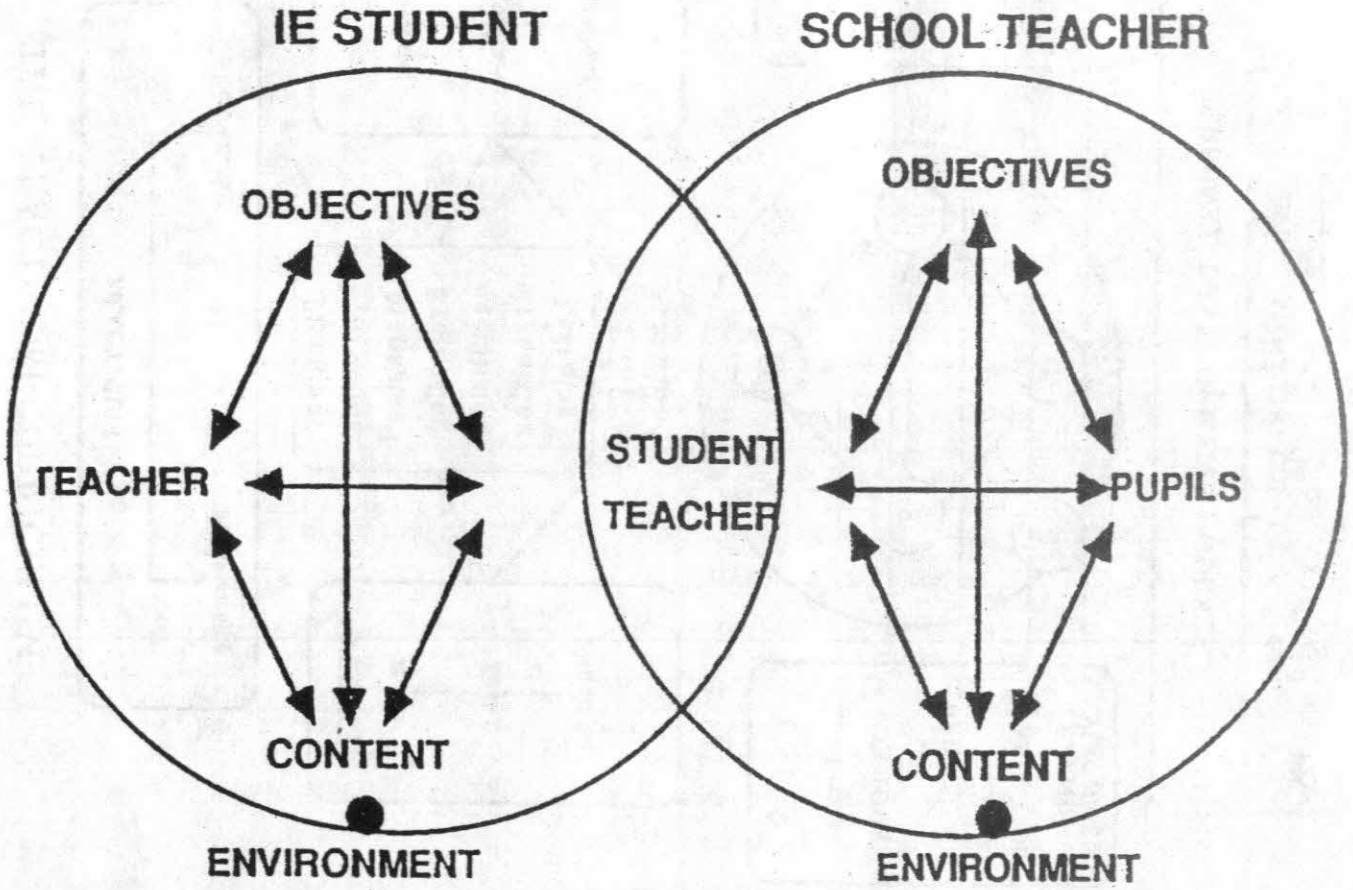


Diagram 2 : Dual Role of The Student Teacher

(Sim Wong Kool)



Theoretical Framework

Since direct and concrete experience at group and individual levels play a key role in the PEP (C) course, D.A. Kolb's model of experiential learning (1973, 1974, 1984) was adopted. It is one of a family of models, each of which portrays in a different way elements of a process which exists in time and refers to the experience of groups working and learning together (Bion 1961; Tuckman 1965; Stanford and Roark 1974; Hollander 1978). Its roots go back to the 1940's when Kurt Lewin and his associates brought together the immediate experiences of the participants and the conceptual models of the teaching staff to create dynamic and interactive learning environments.

Kolb sees the type of learning in groups as a continuous process which can be depicted as a cycle with four distinct phases. In the cycle, here-and-now experience (CE) is followed by recollections and observations about the experience (RO). These observations are assimilated into abstract theories or concepts (AC), from which new implications for action can be deduced (AE), leading to further experiences (CE). Specific abilities are required of the learner in each of these phases, and it is important to complete the cycle if effective learning is to occur. Kolb extended this model into individual learning styles, their implications for personel growth and career development at different stages of the learning cycle, and the creation of learning environments (Kolb and Fry 1975; Wolfe and Kolb 1984).

The 90-hour PEP (C) course uses the model as a descriptive framework to organize the learning of the student-teacher in his/her various roles and tasks. Seven basic roles and related tasks expected of all teachers irrespective of subject, level or aptitude are identified. They are planning, instructing, managing, evaluating, organizing, socializing and learning. The student teachers are expected not only to acquire knowledge and skills about these roles in the subject areas but also to perform them effectively in simulated or real learning situations. This means that they have to learn not only cognitively but experientially. To achieve this, the student teachers have to first learn the principles of teaching and learning, and match their students' level with the instructional and management strategies but also practise teach formally in classroom or laboratory situations or informally in small group micro-teaching situation or in the field.

To fulfil the objectives of the course, Kolb's experiential learning model has been modified to include the following stages: direct experience (DE), recollection and response (RR), process and reflection (PR), generalisation and formulation (GF) and application and testing (AT). Each one of the seven roles, usually in relations to two others or more roles, is operationalized and developed through the five stages. They are in turn linked with the educational theories and principles articulated in the other core course; Principles of Educational Practice - PEP(E).

Underpinning the Experiential Learning Model is the recognition given to meaningful learning as it is proposed by David Ausubel 1963, 1968, 1978). According to Ausubel, meaningful learning is contrasted with rote learning. To learn meaningfully, individuals must choose to relate new knowledge to relevant concepts and propositions they already know. This means that the student teacher has to make deliberate efforts while being trained to recall concepts and propositions already learned, learn new concepts and competencies, integrate the new concepts and competencies into their metacognitive structure, reformulate new principles, apply the newly acquired knowledge and skills in new situations, reflect and evaluate their own beliefs and performances. In short, he/she has to constantly make linkages between previous and present knowledge, and between theory and practice.

Experiential learning also presupposes that the practice of effective teachers could be used as examples to inspire and to guide the student teachers. The findings of American and Singapore studies on content knowledge, instructional routines and moves and judgement of expert pedagogues are therefore used in the design of the PEP(C) curriculum (Berliner, 1988; Blook, 1986, Chen et al, 1988, 1989; Gudmunsdottir, 1988; Leinhardt 1985; Shulman, 1986). Effective teacher behaviours such as routinised lesson/unit planning, instructional and managerial behaviours are identified, and alanlyzed in the course. This means student teachers do not only understand the process of planning and instruction but also plan for effective instruction and practise specific inducting, explaining, questioning and monitoring skills with some model examples in mind. It also means an emphasis on a thorough grasp of the subject matter and the development of a knowledge base on teaching and learning, curricular and personal development and policy-making and implementation.

Implementation of Experiential Learning

In teaching the roles identified, the student teachers are given opportunities to be totally immersed in these roles and tasks as performers of the roles in a variety of classroom contexts. Knowledge about the roles and tasks are learned conceptually and experientially, sometimes in groups and sometimes individually, but often systematically and in small steps as it is related to content or subject pedagogy. A great variety of learning modes are used. These include lectures, tutorials, seminars, workshops, microteaching, school experience sessions and teaching practice. To illustrate the stages of development, the learning process of the first four roles will be described.

The planning and instructing, managing and evaluating roles are presented in large group lectures and discussed in subject-based tutorials and ending with two seminars. Each role is further divided into tasks and subtasks that are examined, reflected and practised in a number of experience modules. The seminar on 'How Policies are Implemented in Schools' in given by invited speakers who are effective practioners in the teaching profession and the experience modules are meant to synthesize factors to be taken into consideration in planning and instructing a lesson. These include the actual writing of lesson and unit plans as well as the preparation of instructional materials and determination of procedures for the lessons. Planning is followed by the actual instruction, demonstrations and tutorials.

The following pattern of teaching the roles is usually implemented. The main principles are first presented in lectures. During the presentation, the key concepts and practices are first explicated and demonstrated so that the student teachers can observe and participate in concrete and direct teaching-learning experience (DE). Film clips and video excerpts of excellent practice ranging from explaining, questioning, and management of misbehavrious are used to illustrate the points made during the lecturers. There are also slide shows of excellent examples of teacher prepared teaching materials. The student teachers are given the time to discuss, recall and respond (RR) to the concepts and issues raised during the lectures or subsequent tutorials and workshops. Opportunities are given during tutorials and small group discussions for the student teachers to process and reflect (PR) upon what they have observed. From the principles learned in lectures, examples observed in real life, or films, videos and slides, and further knowledge gained from their own readings, the students teachers

are expected to generalise the principles in planning, instructing, managing and evaluating classes and students. They are also expected to formalize and apply the principles in writing lessons plans, preparing instructional materials and activities as well as evaluation procedures to test pupil learning (GF). After the plans and procedures have been formalized, and the lessons and materials have been prepared, the student teachers are expected to evaluate their own application of the principles, their own lesson plans and performance during microteaching, school experience, and teaching practice (AT). (Please refer to Appendix 1 and 2: PEP(C) Diploma in Education and Certificate in Education course outlines).

PEP(C) Course Evaluation

The experiential approach to learning generic pedagogic knowledge and skills appears to be appropriate, practical and useful from course and programme evaluation results conducted for the Diploma in Education students (graduates) and the Certificate in Education students (non-graduates) in April 1988 and 1989. Both sets of evaluation returns reported favourable acceptance of the course. In general, the student teachers have also done well in the course and the teaching practice.

The 1987/88 and 1988/89 batches of graduate students (78.85% and 87.6% respectively) agreed that they gained new perceptions and understanding from the course. 66.03% and 73.7% agreed that the knowledge and skills gained from the course were relevant and applicable during teaching practice. 66.03% and 80.8% of the graduate students rated the course as a whole as good, very good and excellent. As they also showed great appreciation for the variety of learning activities in workshop, tutorial, seminar or practice situations, it appeared that the graduate students appreciate the developmental stages of experiential learning. The course appears also to have improved in its rating by the student teachers.

The non-graduate students were mid-way through the course (a two year programme) when the evaluation questionnaire was given out. 84% of the 1987/89 batch of student teachers agreed that they gained new perceptions and understanding from the course. 71% of them found the knowledge and skills gained on the course applicable during teaching practice. 73.8% of the students rated the course as a whole as excellent, very good or good. As microteaching was con-

ducted as part of the PEP(C) course for the Certificate in Education students, a separate evaluation was carried out. The students in general agreed/strongly agreed that the topics covered will be useful in their teaching practice (76.2%) because they were better informed of basic classroom teaching skills (90%). Also the microteaching sessions have helped them to practise and master the basic teaching skills (70%).

The Future

As the experiential learning model is found to be appropriate and useful for pre-service teacher training, both at the graduate and non-graduate levels, the course will continue to use it as a conceptual framework. After the student teachers have been totally immersed in the roles and tasks in teaching situations, they no longer preceive or practise them in isolation but as parts of an integrated whole. They also become more aware of the needs and learning problems of the pupils at various levels in different subjects as teach accordingly rather than in blind obedience to some theoretical models. In other word, theories and principles have become so integrated with practice that the student teachers can attest to the practical nature of the course, even though they may not be able to articulate clearly the theory-practice link.

What is of greater concern in such a generic pedagogy course is that student teachers should within a set period acquire knowledge about generic teaching skills that are related to the teaching principles and theories taught in the Principles of Educational Practice (PEP/E) course and specific concepts and skills taught in the subject/content pedagogy course. Such a knowledge base will enable the student teachers to practise more effectively as professional teachers whether in classrooms and laboratories in the fields.

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Practice of Education-PEP (C) Course Outline

Diploma in Education

(90 hours in 4 terms)

1. **Course Overview**
   - Course structure
   - Teacher's role in the secondary/pre-university classroom

2. **Planning Instruction**
   - Designing instruction
     * lesson plans
     * unit plans
     * course plans
   - Analysing learners
   - Analysing and selecting content, materials and media
   - Delineating and writing instructional/learning objectives
   - Determining procedures

3. **Instructing**
   - Using inducting methods
   - Informing and explaining
   - Questioning and responding
   - Providing feedback
   - Using and producing media material
     * chalkboard and whiteboard
     * graphic materials (e.g. overhead transparencies, charts, etc.)
     * audio-visual materials (e.g. audio and video tapes, films, slides and photos)
     * producing a multi-media presentation
   - Selecting and evaluating media material
   - Fostering creativity and problem-solving skills
   - Experience module 1: planning and preparing a lesson (including learning tasks and self-produced media materials)

4. **Managing Pupils and Learning Environment**
   - Establishing routines
   - Effective classroom management techniques
   - Analysing classroom misbehaviour
   - Grouping and individualising
   - Managing time
   - Managing stress
   - Experience module 2: solving classroom misbehaviour problems

5. **Evaluating Pupils' Learning**
   - Evaluating learning and instruction
   - Setting objective questions
   - Setting short-answer and essay questions
   - Assessing short-answer and essay-type questions
   - Organizing and reporting of test data
   - Experience module 3: evaluating learning

6. **Socializing Pupils**
   - Enhancing self-concept and mental health
   - Implementing pastrol care in schools
   - Career guidance skills
   - Establishing links with parents
   - Making educational policies work
   - Experience module 4: Helping someone with problems

7. **Organizing Activities and Resources**
   - Organizing community resources
   - Organizing laboratory and field activities

8. **Learning As A Professional Teacher**
   - Study skills
   - Planning a school-based project
   - Experience module 5: Planning action research in school

9. **Course Review**

10. **Final Examination**

*P.S. 1. Practice of the above skills is done in PEP(C) tutorials and workshops, Curricular Subject Option (CSO) microteaching sessions, and during the Practicum, i.e. School Experience and Teaching Practice.

2. Evaluation of the student teacher's learning and practice of the above skills is done by an evaluative instrument called the Assessment of Performance of Teaching (APT) which is the focus for teaching improvement and assessment.

The Practice of Educational Principles Course (PEP/C)

Certificate of Education

(120 hours in 4 terms)

The major difference between the undergraduate Certificate in Education and the graduate Diploma in Education PEP(C) course is in the greater emphasis on the operation of roles in clusters. For example, the planning role takes into consideration, the socializing and learning roles of a primary teacher; and the instructing role, the managing and organizing roles; and the evaluating roles, the planning and instructing roles.

1. **Course Overview:** the teacher in primary classes

2. **Planning Role** (socializing and learning)
   - Designing instruction
   - Analyzing learner
   - Analysing and selecting content, materials and media
   - Delineating instructional objectives
   - Determining procedures

3. **Instructing Role** (managing and organizing)
   - Presenting informating
   - Questioning and responding
   - Individualizing and grouping
   - Using and providing feedback
   - Using the chalkboard and whiteboard
   - Producing and using graphic materials
   - Producing and using audio and photographic materials
   - Producing and using slide/sound presentations
   - Selecting and using media materials
   - Using the operating AV equipment
   - Microteaching
   - Experiential module 1: planning and preparing a lesson

4. **Managing Pupil Behaviours** (instructing and organizing)
   - Establishing classroom routines and procedures
   - Managing instructional activities
   - Effective classroom management techniques
   - Analyzing and managing classroom misbehaviour
   - Experience module 2: managing classroom misbehaviour

5. **Socializing Pupils** (managing and organizing)
   - Enhancing pupil self-concept
   - Some basic counselling skills
   - Experience module 3: helping pupils

6. **Evaluating Pupil Learning** (planning and learning)
   - Evaluation practices
   - Setting objective test items
   - Setting and marking short answer-questions
   - Improving the quality of test items
   - Experience module 4: evaluating pupils' learning

7. **Learning Life Skills** (organizing, managing and socializing)
   - Study skills
   - Planning school-based projects
   - Experience module 5: planning school-based projects

8. **Review of the course**

9. **Final Examination**

Note: Practice of the various roles and skills identified are done in PEP(C) tutorials, microteaching sessions, curricular subject options sessions, school experience and teaching practice.

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NON-TRADITIONAL DELIVERY OF DISTANCE EDUCATION IN CHINA: A FIELD EXPERIMENT

by

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Introduction

Since 1983, the University of Victoria and East China Normal University have conducted joint research on distance education, supported by IDRC. Phase I of the Research Project emphasized development of a mutual understanding of the social and educational context of distance education at the two institutions. Eight research papers were prepared, exchanged and discussed during joint visits. These papers formed the basis for later publication and seminar presentations in both countries. (Bao Xue-Ming, Gao Ben-Yi, Seaborne, 1987) (Xie Anding, 1987).

Phase II of the Research Project was conducted from 1985-87. During this time, research focused on comparative methods of delivering distance education courses. A controlled, field experiment was conducted in China in substituting instruction by video-tape and re-designed print for face-to-face teaching widely used in Chinese, off-campus programmes. A research and evaluation team from East China Normal University was trained at the University of Voctoria as part of the field experiment.*

For both the Canadian and the Chinese research scholars, the opportunity to examine whether it was possible to adapt models of distance education developed in Canada to the Chinese context was of great interest. The possible benefits to East China Normal University included the ability to better meet the needs of its students and the mandate of the National Education Commission for expansion while retaining quality of instruction.

* This collaborative research effort involved many colleagues at both institutions whose efforts were instrumental in its success.

The Institutional Context

While Canadian collegues visited East China Normal University, and Chinese team members came to the University of Victoria, the major part of the preparation for the research took place in Canada. Then the Chinese scholars had to adapt this knowledge and skills obtained to the development of appropriate course materials. It is important to the research study, therefore, to understand both context.

A. East China Normal University

East China Normal University, located in Shanghai, is primarily responsible for the training and development of middle school (secondary) teachers through provision of a BA degree programme. Correspondence work began in 1956, and in 1983, the University became one of five 'key' institutions in China authorized by the Central Ministry of Higher Education to offer an off-campus BA by distance education. (ECNU, 1986)

To implement this mandate, the College of Adult Education offers courses at fifteen correspondence 'stations' located in seven eastern provinces with a total population of 300 million. These centres currently serve 2700 students and new centres are being developed annually to reflect ministry policy emphasizing distance education. A new station at Urumchi, Xinjiang, was opened in 1987. Predicted off-campus enrolment is 5,000 by 1990 and 700 BA graduates are expected annually.

Increasing the qualifications and competence of secondary teachers has a direct and immediate effect on the effectiveness of instruction at the local district level. In addition to ministry support, ECNU thus receives excellent cooperation from district officials. Correspondence stations in provinces such as Shandong and Fujian are highly organized and equipped to support distance education students. Teachers are released from duties to attend distance education courses and study and library space is made available at individual schools.

Course delivery methods reflect traditional correspondence techniques although ECNU has consistently experimented with non-traditional approaches such as television since 1960. Print materials and texts play a central role and individual lessons are submitted by students for evaluation. Faculty from ECNU travel to local centres for two-week face-to-face instruction during the term and students attend these sessions on a full-time, residential basis.

Local centres also organize tutorials, laboratories, and study groups for distance education students. Tutors are provided with periodic opportunities to study at ECNU in Shanghai to improve both subject matter and leadership skills.

Delivery methods are unified by an emphasis on independent or self-directed study as an organizing principle. This principle reflects pragmatic problems of study at a distance in China but it also represents a grounding of delivery methodology in adult learning theory. Commitment to theoretical work on adult education and research in distance education is reflected in publication by the College of a major journal, *Research in Adult Higher Education*, and operation of a formal Research Bureau on Higher Adult Education.

B. **University of Victoria**

The University of Victoria is one of three public universities in British Columbia, the most westerly of the Canadian provinces. All three institutions are located in the southwest of the province and attendance requires *de facto* residence in the urban areas of Vancouver or Victoria. Access to higher education by adults with work or family responsibilities outside these urban areas is thus severely restricted.

Academic policy at the University has emphasized the development of off-campus programmes in professional disciplines in order not to duplicate offerings of other institutions. Active programme development began in 1978 using the Hermes and ANIK-B satellite for experimental work.

Many off-campus courses offered by institutions are *adhoc* and do not typically permit orderly degree completion by students. To avoid this problem, the University has developed coherent sequences of ten credit courses at the third and fourth year undergraduate level. Degree completion is possible in six academic areas: Nursing,(BSN); Education, (BEd); Social Work (BSW); Child Care, (BA); Public Administration, (Diploma); and Computer Information Systems (Certificate). Approximately, 600 students have graduated in these fields by off-campus study since 1983 and 3100 were registered in 1987-88. A special provincial grant of $1,100,000 is used to support distance education programmes.

Delivery methods have been the subject of active exploration and research (Haughey, 1985). Satellite delivery

of credit courses in Education began in 1979 and in 1980 the University became the first institution in North America to offer degree credit courses in Nursing by satellite. Interactive course design was emphasized using two-way audio communication with students, also by satellite.

An extensive print-based study guide is normally developed for each course. The guide contains essential academic material and required readings. Audio and video-tape supplement the guide and television lectures are integrated into the course design. Lectures are broadcast throughout BC by the Knowledge Network, a provincial educational telecommunication authority. Broadcasts are received by local cable stations in the home communities of students to tape lectures if the broadcast time is inconvenient.

An interactive course design is achieved by the use of teleconferencing with groups of students. Individual students are also encouraged to contact Victoria-based faculty of telephone at pre-determined hours. A special 24 hour, off-campus library service called Infoline is maintained for distance education students by the University. Computer conferencing has been recently added to delivery methods, and an experiment using radio for professional development programmes is currently underway.

Although non-traditional delivery is emphasized, some instructor travel to off-campus located is also continued.

As a deliberate policy, instructional design has avoided dependence on any single delivery method. Rather, delivery methods are chosen to fit the nature of the content being offered, the needs of students in a given profession, principles of andragogy and contextual factors such as cost.

Comparative Issues

A central principle in the development of distance education programmes at ECNU and the University of Victoria is the maintenance of an academic standard equivalent to that of on-campus programmes at each institution. The content of courses is supervised by subject matter departments at each institution. Instructional design emphasized interaction between students and faculty and among students. At Victoria, this is achieved through electronic methods such as audio-tape, telephone, teleconferencing, and computer conferencing. Delivery methods at ECNU are more restricted, however, strong local support for students exceeds that

available in British Columbia. Use of tutors, local study groups, and face-to-face teaching substitute for more contemporary resources.

Instructional design at both institutions flows from current adult learning theory and both universities conduct applied research on the effectiveness of distance education. Design principles also reflect the nature of the adult learner in both societies. Print, audio and video materials at the University of Victoria are constructed in such a way as to provide self-pacing and independent study. Chinese materials reflect the more traditional hierarchical authority of the teacher and the text, although modifications and occurring.

A strong institutional commitment to distance education, special government funding support, and staff specialists in adult education are further similarities.

Both institutions face problems of delivery and these are particularly serve in China. Use of face-to-face teaching during the term makes course delivery, time-specific. Correspondence notes and texts engender rote learning. The need for a course design and print materials which facilitate self-directed learning by adult students has been documented. (Xie Anding, 1987). The net effect of present methods is to restrict access to the B.A. program of ECNU despite great demand by teachers and official government policy encouraging distance education delivery of higher education.

Research Objectives

The principal focus of research was on the introduction and analysis of non-traditional delivery methods in the Chinese context of distance education. Specially developed video tapes and re-designed print were used to replace a conventional, two-week, face-to-face instructional period in the delivery of a course entitled *Asian and African Literature*.

Research was guided by the following operational questions:

1. Can face-to-face instruction be reduced without negative impact on student achievement and course completion?

2. Can a 'mix' of delivery methods be substituted for the current emphasis on the authority of the instructor and the text?

3. Can non-traditional methods of delivery be used to increase the efficiency of distance education by making courses more accessible to a larger number of students?

4. How can the educational efforts of non-traditional delivery in the Chinese context be evaluated?

Research Design

Details on the design and conduct of the field experiment are provided in the following sections.

Subjects

Subjects were 107 middle school (secondary) teachers in twelve countries whose major local centre was near Wei Fan College of Education, Shandong Province.

All subjects were majoring in Chinese language and literature, one of eight academic specialties in the off-campus BA offered by ECNU. Subjects had passed a common academic entrance examination for the BA programme.

Methodology

A pre-test, Post-test, Control Group Design was utilized. Subjects were randomly divided into two groups - Group A (Video) (N = 47) and Group B (Non-video) (N = 60) based on their travelling time to the local centres. Instruction for Group A consisted of fourteen hours of specially prepared video tape and print materials designed to facilitate self-directed learning. Some tutorial assistance was also provided; however, during the four month course, no period of face-to-face teaching was scheduled for Group A.

Group B received similar print materials and participated in a 7-day period of direct instruction by a faculty member from Shanghai.

Both groups wrote the same supervised final examination. Duration of the experiment was January to April, 1987.

This data gathering period was preceded first by a six-week training session at the University of Victoria in April-May 1986, then by an intensive period of course materials development at East China Normal University. The specifics of the research design and the questionnaire were also developed at this time.

The Training Period

The administrative coordinator, the course instructor, the audio-visual specialist and a translator who was also a course instructor, all from the Faculty of Adult Education at East China Normal University, spent six weeks at the University of Victoria.

Their specific objective was to work cooperatively with members of the Division of University Extension and other distance education experts to develop a blueprint for a distance education course based on the learning theories used in Canada, which would also integrate modern technology. Video tapes were chosen as an appropriate medium and the audiovisual specialist received intensive training from his counterparts in University Extension on all aspects of video production with stress on those techniques possible with limited facilities and a low budget. He co-produced a one hour video tape in Chinese as an instructional example for his own colleagues in China. A demonstration audio tape was also produced as a possible supplement.

The group developed a prototype course guide and administrative handbook. They also received seminars on research design and a model for the course was blocked out, and sample questions were designed. An essential part of the training programme was visits to other distance education institutions where they could identify a range of learning theory assumptions evident through different course formats and institutional policies.

Following their return to Shanghai and despite administrative reassignments and delays in obtaining equipment, the group developed the course materials and video tapes, negotiated the research specifics and designed the questionnaire.

Format of the Experiment

In October, two months before the start of the

experiment, the Instructor/Researcher went to the local site to meet the students and explain the project. He also administered the pre-test at this time. Subsequently all students received the course materials. These included the prescribed text, a course administration guide with evaluation details and deadlines, a study guide, an outline of the key points in the course, a self-study schedule, a list of compulsory reading materials, a list of key books and a copy of the questionnaire.

The course ran from January to early April and Jan 01 to March 30 was designated the self-study period. The control group met April 1 to 7 for face-to-face instruction and on April 7, wrote the post-test. The experimental group was divided into three subgroups. They first met to view the video lectures on February 14, and each subgroup met four times, ten days apart for three or four hours each. It had originally been hoped that the experimental group could come together for a one hour video lecture and tutor-led discussion every week for ten weeks, but the lack of available suitable equipment at the sites on such a regular basis meant reorganizing the viewings so that students saw 14 hours of video lectures in two three hour and two four hour sessions. The students wrote the post-test following the last viewing session. While the control group met for their face-to-face lectures, the experimental group had time to review their materials. Both groups came together to write the final exam on April 10. They also completed the evaluation questionnaire at this time.

Data Analysis

The responses from the questionnaires were coded and the data transferred to computer tape. An SPSS statistical package was used to provide percentages and percentage frequencies for all variables. Data from respondents were identified as belonging to either the experimental video-lecture group or the control face-to-face instruction group, and either t-test or chi-square tests were used, as appropriate, to determine whether there were statistically significant differences between the responses of the two groups. Assessment data, including pre-test, post-test, final examination and assignment marks for the two groups were also transferred to the computer file and compared using t-tests.

Description of the Findings

The students provided information on themselves and

their reactions to the course. These are compared on a number of related variables for the experimental and control groups. Finally, the results of the experiment are described.

Students' Background Characteristics

Students were assigned to the experimental or the control group based on their travelling distance from the local centres since students had to come to the centres on a regular basis to view the video-tapes. Comparison of the demographic data from both groups indicated that there were no statistically significant differences between characteristics of either group. Students in both groups were predominantly males in their twenties. The majority were unmarried. All the students in the control group and all but four per cent of students in the experimental group were teachers, but more students in the control group (46%) had taught for six to ten years while more of the experimental group students (44%) had three to five years teaching experience. The majority of students in both groups considered themselves to have heavy teaching loads, and similar household responsibilities. Students in both groups indicated that they had few social activities which might interfere with their studies.

Not only were students similar in background but their previous academic attainments were also similar. Almost all the students had a college degree, saw themselves as capable in their studies and were relative beginners with little background in African and Asian literature. Most students had already taken at least one course in foreign literature and were fairly interested in the course topic. In contrast, few students had taken a correspondence course previously.

Students' Study Skills

The course guide included information of study skills and students were encouraged to use a variety of skills during the course. The majority of students in both groups rated their self-study ability as fairly strong, the mid-point of the scale, indicating that they thought that there was still room for improvement. There is a general tendency for distance study students to have difficulty in setting up a regular study schedule and in keeping to it throughout the course. Therefore, the course guide set out weekly study plans and students were encouraged to follow

these. The plans included suggestions for note-taking, reviewing the text materials and previewing materials before watching the video tapes or attending the face-to-face sessions.

Students in both groups varied in the amount of time they spent studying. The largest percentage of the experimental group spent, on average, three to eight hours per week, while for the control group, an equivalent number spent nine to fourteen hours per week in study. Most of the students in both groups were able to use at least a little of their working time for study but only about ten per cent were able to spend more than 'some' work time studying. These figures reinforce the students' perceptions of their heavy workload. Almost all the students in both groups took regular notes. Approximately half the students in both groups also sorted out these notes after each class or viewing session and did a review on a regular basis, while another thirty per cent did so irregularly.

Where possible, students in both groups were assigned a study tutor who lived in a local centre. In general, more students were anxious to join a study group than were able to do so. When students had difficulties with the study material, they generally used the two closest sources of assistance, the study guide and others who could help them. Like adult students in general, they sought help from those in their own social network and did not confine themselves to the instructor, the tutors and other students. Often the problems of time and distance are complicating factors. Students seek answers quickly and writing to the instructor or consulting the tutor may take more time than they have available. Further, expressing one's problem to a friend is less threatening than contacting the instructor or tutor. Perhaps, because they did not have the regularly scheduled video sessions, the control group felt that it was more difficult to access their tutors when they had difficulties. Although the experimental group also thought that it was not easy to access the tutor when you needed advice, they rated their tutors as more helpful than did the control group.

Students' Perceptions of the Course Materials

In general, students in both the experimental and the control group thought that the study guide and outline study plans were helpful in their learning. While they were not as enthusiastic about the prescribed text, they considered it to be fairly suitable for the course, and thought that all the materials were well integrated.

Students in both groups were very positive about the clarity of the objectives for the course, and felt that, in general, they had been able to meet them in their studies. The organization of the course was also viewed positively. Students in both groups had to rely on the written materials for guidance throughout the self-study period and the comments of students would indicate that the training in course design and learning principles received in Victoria, Canada was successfully transferred from the Canadian to the Chinese context.

Students' Perceptions of the Grading and Assessment Techniques

The assessment design for the course included a written paper (worth 30%) on one of the compulsory texts to be posted to the instructor by March 5, during the self-study period, and a final examination (worth 70%). The format of the exam and the grading standards used were clearly outlined in the study guide. Students were quite satisfied both with the grading and the format of the examination. They thought that the required assignment was clearly described, not too long or onerous and contributed to their learning. They considered that the course workload was fair and that it was at an appropriate level of difficulty. The reading requirements as a whole were rated as quite heavy and while students saw the compulsory readings as important, many were unable to access the reference texts since so few books were available. In general, students commented very positively on the close integration of course content, assignment and examination. Although the pre and post-tests were part of the research design rather than an integral part of the learning experience, students rated the activity highly and tried to use them to guide their study.

The Experimental Group's Reactions to the Video Lectures

The students in the experimental group were asked to come to their local centre four times and in all, only four people were absent because they were ill or unable to leave their other duties. For over half the students the viewing times allocated conflicted with their work and they did not find the set times helpful in pacing their learning. Seventy-seven per cent of students felt that being able to view the sessions at a time of their own choosing was best. Due to the lack of sufficient playback machines, the individual sessions were much longer than originally planned

and two-third of the students would have preferred a two-hour session. In general, students felt that the 10 days between viewing sessions was sufficient time to review their notes and prepare for the next session although about one-third of the group would have preferred more time. Because of the length of the viewing sessions, students had little time for discussion or for replaying the tapes. Over 80% had hoped to be able to rewatch the sessions and considered discussion after watching the lectures to be a necessary part of their learning strategy.

Overall, students liked the video lecture format with 39% rating it superior to face-to-face instruction. About half the students thought that the video lectures were more concise and easy to understand than face-to-face instruction. A similar number thought that the number of videos was sufficient, while 44% would have liked more lectures.

In terms of technical quality, almost all students rated the videos as good on all aspects except captions where the ratings were in the fair to adequate range. They commented that they appreciated having each video lecture lighlight one of the fourteen key points of the course. They liked the direct instruction approach used in the video sessions rather than the polished format of regular television programmes and the comparison with the format of the face-to-face classes where students have little time for review, they appreciated the time to think and reflect between the video sessions. Further the majority of this group hoped that other courses would use the video lecture format. These findings reflect very positively on the course team who had to overcome incompatable equipment and machine malfunctions to complete the video tapes on time. Until they had some assistance with equipment from colleagues at the local television university, the insertion of the graphics captions was very time-consuming. The team members commented that having the programmes scripted fully in advance was a major factor in their success. Television scripting and production techniques for instructional programmes had been one of the focii at the University of Victoria training session.

The Results of the Experiment

Students in the experimental and the control groups were compared on their pre-test, post-test, assignment, final examination overall, part 1 and part 2 scores and on

their final grades. In only one instance, the post-test scores, was the difference between the means statistically significant. The higher scores of the control group is possibly due to the fact that they wrote their post-test on the day following 7 days of face-to-face instruction while the experimental group wrote at the end of a video lecture session. Therefore, in the pre-test, final examination and assignment, there was no statistically significant difference between the scores of the two groups. Students who studied using video lectures were as successful as those who had face-to-face instruction.

Results of the Study

This research study was guided by four major objectives. The findings of the study are discussed in relation to these questions:

1. Can face-to-face instruction be reduced without negative impact on student achievement and course completion?

The research study clearly indicates that the use of video lectures with an integrated course materials design which stresses the development of students' study skills in a viable alternative to the traditional format for distance education in China. Not only did students in the experimental group achieve as well as their control group counterparts, they were equally satisfied with the study materials and the course in general. Further, there were no course dropouts in either group.

2. Can a 'mix' of delivery methods be substituted for the current emphasis on the authority of the teacher and the text?

The general academic outcomes of both groups would support the contention that alternative delivery strategies can be substituted without detriment to student achievement, but it is also essential to acknowledge the importance of a well designed print medium as part of that mix. The course guide adopted a number of principles which were designed to enhance students' study skills and move away from a very basic format which originally was not designed for students who were studying independently (Shen Jinrong, 1987). In contrast, these materials included such principles as learning objectives, key points, explanation of difficult parts of the text, review questions, references and ideas for further thinking. it could also be noted that the significant effect of face-to-face instruction evident in the post-test results, was not sustained in the final examination

results although these tests were written only 3 days apart.

3. Can non-traditional methods of delivery be used to increase the efficiency of distance education by making courses more accessible to a larger number of students?

Provided that their local centres have the appropriate technology, there would seem to be no reason to limit the number of students seeking admission to a course. Not only could more centres be served, but the role of the tutor could also be enlarged to include leading small group discussions after viewing the video tapes. Such discussions would provide students with opportunities for informal interaction and sharing of learning strategies and ameliorate a total lack of human contact which has been shown to have a negative effect on student retention (Coldeway, 1982). The reduction of the viewing periods to two hours would also facilitate learning and discussion.

4. How can the educational effects of non-traditional delivery in the Chinese context be evaluated?

The study design and results provide one example of where data on both student reactions and academic achievements were obtained. Interview data students, especially during the process, and student information on their use of the study skills in subsequent courses would be valuable additions, as examples. Evaluation of the process, the outcomes and the administration of a distance education course can all be examined using similar research strategies.

Outcome

In addition to the findings reported, the joint research project had several broad outcomes of particular significance. The Chinese research paradigm exhibits some marked differences with that typically used in North American Social Science research. Rather than testing hypothesized relationships, emphasis in China is placed on 'rasing practical experience to the level of theory.' Use of an alternative research design for the project has thus stimulated institutional interest at ECNU is using educational theory to improve practice by careful experiment and measurement of results (Shen, Jinrong, 1987).

Use of a team approach to prepare distance education materials difered strongly from current Chinese practice and was found to be valuable as was the attempt to ground distance education materials in adult learning theory. A 'student centred' approach contrasts with primary emphasize

on the authority of the teacher and the transmission of content normally found in China but also in some North American jurisdictions.

Because field research required instruments for data collection, a broad interest in the subject of evaluation was stimulated. The evaluation of distance education is very much a developing craft world-wide (Holmberg, 1985). Chinese efforts are thus important for a growing international literature.

Finally, Canadian personnel benefited by direct contact with a highly organized support system for the distance learner in China. A sophisticated range of administrative and motivational incentives is used to encourage students and reduce dropouts — a classic problem of correspondence study. North American practice could benefit by adopting a range of techniques such as work-release and employer support. The integration of distance education into the fabric of government policy for higher education is also well advanced in China.

It is expected that the further collaboration between the University of Victoria and ECNU will strengthen practice at both institutions.

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A STUDY IN ATTITUDES AND STUDY-HABITS OF STUDENTS OF DISTANCE EDUCATION

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Abstract

This paper is an attempt to understand the study-habits, mental-makeup, attitude towards eduation, home-assignments, examinations, etc., of students of distance education. The analysis has been carried out primarily in sex-wise classification, supplemented by taking into account the marital-status and employment-status. The study speaks for, in general, a better attitude of 'female students' than that of 'male students.'

Introduction

In India, the non-formal education through correspondence courses, was formally started as a pilot project in the University of Delhi. The success of the experiment unleased a new era of learning through distance education. Today about 35 universities have adopted this stream of education and about 4.0* lac students, who for some reasons could not pursue their education in the formal setup, derive benefit out of it. With the growth and popularity of this media, there has also been an increase in the curiousity of researchers and the like towards the media. A close scrutiny

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* NIEPA: Total Enrolment in Higher Education in India (1989).

of the literature on distance education reveals that most of the efforts are focusses on the structural-functional aspects of the institutions of distance education. Lesson-writing, response-assignments, personal contact programme, etc. dominate the literature on distance education (Sujatha, 1988). Of late, attempts have been made to understand the profiles of the students of distance education, wherein socio-economic geographic aspects of the beneficiaries have been concentrated upon (Mahajan, 1989). Nonetheless, it can be said without any exaggration that these studies tend to highlight the 'exteriority' part of the clientele of distance education whereas the other dimension of the clientele viz its 'interiority' largely remains untalked about (Sahoo, 1987). As a consequence various aspects such as study habits, mental-makeup, attitude towards education, etc., of the students of distance education remains unexplored. The present paper is a mild attempt to study the same.

Objectives

The study has been carried out with the underlying objective of ascertaining the 'study habits and its allied aspects' of various groups and sub-groups, based on sex, marital-status and employment-status, of students of distance education.

Scope

The scope of the present study has been confined to the sample of students doing postgraduation through the Directorate of Correspondence Courses, Punjab University, Chandigarh. As a tool, Mathur's inventory on 'Attitudes and Study Habits' has been used. The inventory tends to provide information on as many as nine aspects, viz (i) attitude towards teachers; (ii) institutional and home environment; (iii) attitude towards education; (iv) study habits; (v) mental conflict; (vi) concentration; (vii) home assignments; (viii) self-confidence; and (ix) attitude towards examinations.

Hypothesis and analysis

The focus of the analysis has been around the statistical null-hypothesis that there is no difference between the students belonging to various 'defined' categories on the nine aspects of Mathur's inventory. Following tables (No. 1, 2 and 3) give relevant information on arithmetic mean

(a.m.), standard deviation, (s.d.) and calculated t-value(t) pertaining to various aspects. Table-1 indicates the results pertaining to the classification based on sex. Table-2 is based on 'sex-wise marital status' classification and Table-3 is based on analysis of means based on combined categorization of sex, marital-status and employment-status. The analysis has been carried out on the properly filled 104 questionnaires from the students.

Table-1

Sex-wise analysis of means

Sr. No.	Aspects	Female N_f = 40 a.m.	s.d.	Male N_m = 64 a.m.	s.d.	t
1.	Attitude towards teachers	1.87	0.75	2.23	1.06	1.845**
2.	Institute and home-environment	2.10	0.95	2.05	0.93	0.259
3.	Attitude towards education	2.70	0.46	2.62	0.65	0.669
4.	Study habits	11.42	2.07	11.80	2.56	0.778
5.	Mental-conflict	2.87	0.91	2.83	1.06	0.194
6.	Concentration	4.52	1.34	4.36	1.43	0.558
7.	Home-assignments	2.40	0.98	2.14	1.15	1.165
8.	Self-confidence	1.50	0.82	1.92	1.04	2.131*
9.	Attitude towards examination	4.50	1.13	3.98	1.03	2.363*

*,** Indicates significant values at 0.05 and 0.10 levels of significance respectively.

N Indicates the number of students.

Table-2

Analysis of means – based on sex marital status

Sr. No. of aspects	FU N_a = 31 (a)	FM N_b = 49 (b)	MU N_c = 46 (c)	MM N_d = 18 (d)	t (a&b)	t (a&c)	t (b&d)	t (c&d)
1. A.M.	1.74 (0.73)	2.33 (0.71)	2.11 (0.87)	2.56 (1.42)	2.093	1.92	0.44	1.51
2. A.M.	2.16 (0.97	1.89 (0.93)	2.28 (0.91)	1.44 (0.70)	0.723	0.545	1.35	3.47
3. A.M.	2.77 (0.42)	2.44 (0.53)	2.67 (0.67)	2.50 (0.62)	1.900	0.73	0.24	0.92
4. A.M.	11.55 (2.03)	11.00 (2.29)	11.50 (2.56)	12.56 (2.48)	0.677	0.09	1.52	1.48
5. A.M.	2.93 (0.81)	2.67 (1.22)	2.76 (.108)	3.00 (1.03)	0.729	0.74	0.71	0.80
6. A.M.	4.29 (1.13)	5.33 (1.73)	4.22 (1.46)	4.72 (1.32)	2.076	0.22	0.98	1.24
7. A.M.	2.48 (1.03)	2.11 (0.78)	2.02 (1.08)	2.44 (1.29)	0.97	1.84	0.68	1.30
8. A.M.	1.45 (0.77)	1.67 (1.00)	1.83 (1.02)	2.17 (1.10)	0.684	1.74	1.10	1.15
9. A.M.	4.64 (1.05)	4.00 (1.32)	3.96 (0.92)	4.06 (1.30)	1.476	2.96	0.11	0.34

Note: (i) FU - Female unmarried FM - Female married
MU - Male unmarried MM - Male married

(ii) Figure below Arithmetic Mean (A.M.) in parenthesis indicate the standard deviation.

Table-3

Analysis of means - based on sex, marital-status and employment status

Sr. No. of (aspects)	FUU N_e = 31 (e)	FUE N_f = 49 (f)	MUU N_g = 46 (g)	MUE N_h = 18 (h)	t (e&f)	t (e&g)	t (f&h)	t (g&h)
1.	1.75 (0.79)	1.73 (0.65)	1.90 (0.83)	2.28 (0.89)	0.07	0.58	1.79	1.45
2.	2.30 (0.92)	1.91 (1.04)	2.14 (0.96)	2.40 (0.87)	1.04	0.53	1.42	0.94
3.	2.85 (0.37)	2.64 (0.50)	2.42 (0.87)	2.88 (0.33)	1.29	1.95	1.65	2.34
4.	11.40 (2.23)	11.82 (1.66)	11.33 (.282)	11.64 (.238)	0.53	0.09	0.22	0.39
5.	2.90 (0.85)	3.00 (0.77)	2.66 (1.11)	2.84 (1.07)	0.31	0.76	0.42	0.55
6.	4.15 (1.09)	4.55 (1.21)	4.43 (1.10)	4.04 (1.69)	0.91	0.83	0.88	0.89
7.	2.75 (0.91)	2.00 (1.09)	1.90 (1.04)	2.12 (1.13)	1.98	2.71	0.29	0.67
8.	1.35 (0.74)	1.64 (0.81)	1.67 (0.97)	1.96 (1.06)	0.98	1.15	0.87	0.94
9.	4.85 (1.18)	4.27 (0.65)	3.90 (1.09)	4.00 (0.76)	1.46	2.61	1.00	0.36

FUU - Female unmarried unemployed
MUU - Male unmarried unemployed
FME - Female married employed
MME - Male married employed

Results

In all 81 statistical hypothesis have been put to test at 0.05 and 0.10 levels of significance. A few significant results can be discussed as follows:

1.a. The 'male statudents' have shown significantly higher 'self-confidence' than the 'female students' i.e. the 'males' have been more at ease than 'females' in 'resolving their difficulties with their teachers' as also 'in participating in classroom discussions.'

b. At 0.10 level of significance, difference has also been found between 'males' and 'females' over 'attitude towards teachers.' The 'male students' formulated a better 'attitude' than the 'female students' as they, besides appreciating 'teachers critical evaluation on students' answers found them 'more considerate towards students' problems and in extending help to the students to solve the same.'

c. On the other hand, 'female students' have scored significantly higherly than 'male students' over 'attitude towards examinations'—in the sense that 'females' have exhibited a more cautious approach, than 'males,' towards examinations keeping in view 'the role of the examinations' and thereon the modus-operandi (i.e. concentrating on the requirements of the questions asked and possible answers thereon; good handwriting, etc.)

2.a. Among 'female students,' on the basis of 'marital status' significant differences have been observed on their 'attitude towards teachers' and 'concentration' (where concentration is understood in the sense of 'lack of distractions in studies' from radio, TV, gossips and noise; 'not letting lose oneself into an imaginary world,' 'studying at a stretch,' etc.). In both aspects 'married female students' have scored higher (thus exhibited better attitude' and 'concentration') than unmarried female students.'

b. The 'unmarried female students' have scored higher than the 'married female students' at 0.10 level of significance on 'attitude towards education' which measures on aspects such as 'keenness in learning languages,' 'practical-based education,' 'education is worth spending time and money' and the like.

3.a. The 'unmarried female students' have depicted a significantly better 'attitude' than the 'unmarried male students' towards 'examinations.'

b. A 0.10 level of significance, differences have been observed between 'unmarried female students' and 'unmarried male students' and 'attitude towards teachers,' self-confidence and 'home-assignments,' where in the former two aspects 'unmarried males' scored higher than 'unmarried females'. As regard to the 'home-assignments,' the tool devised for self-evaluation and feedback, the 'unmarried female students' have acknowledged its utility in a better way by scoring higher than their 'male counterparts'.

4. Interestingly, there has been no significant difference between 'married female students' and 'married male students' on any of the nine aspects under study.

5. While comparing 'unmarried males students' with 'married male students,' significant difference has been found only in 'institutional and home-environment'. In this case 'unmarried male students' scored more favourably than the 'married male students' towards environment — domestic and otherwise.

6. Within 'unmarried female students' the 'employment status' brings in a significantly better 'attitude towards home-assignments' of unmarried unemployed females' than their 'employed counterparts'.

7. Between 'unmarried unemployed female students' and their male counterparts, significant differences have been observed in their attitudes towards 'education,' 'home-assignments and 'examinations.' In all the cases 'females' have demonstrated better attitude than 'males'.

8. The 'unmarried employed male students' have exhibited a better 'attitude towards education' than their unemployed counterparts.

Conclusion

While comparing the students on the basis of their sex, it has been found that 'female students' have exhibited a better attitude towards examination than 'male students'.

By taking into account the categorisation of students on the basis of the 'marital status' besides the sex, some interesting differences have been observed. While 'unmarried males' and 'unmarried females' conform to the above-mentioned sex-wise pattern, the 'married males' and 'married females' do not differ on any one of the nine aspects under study. However, within 'female students,' 'unmarried females' have scored lower than 'married females' on 'attitude towards teachers' and 'concentration' whereas it is otherwise on 'attitude towards education.'

While simultaneously considering sex, marital status and employment status for categorising the students, two important differences emerge. Firstly, 'unmarried unemployed female students' manifest better attitude towards 'home-assignments' and 'examinations' than their male counterparts

and secondly 'unmarried-employed-male students' have scored in a more favourable way than others towards 'teachers' and 'education'.

Notwithstanding, the limitations emerging out of the limited scope of the study, it can be said that the study reveals certain aspects on which students in various categories differ significantly. In general, the study tends to highlight a better overall attitude of 'female students' than 'male students'. Moreover, the casual attitude of 'male' is still more pronounced amongst the 'unmarried unemployed male students'. However, these differences can be argued in the light of changing 'socio-economic role' of 'female' in the society.

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KOREA AIR AND CORRESPONDENCE UNIVERSITY (KACU)

by

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Background

Before the second half of the present century, Korea was an agrarian society, poor in national resources. With the succession of Five-year Plans implemented since 1960s, Korea's economy achieved rapid growth, which transformed in Korean economy from agricultural economy to a newly industrialized one.

Economic growth brought far-reaching social changes such as the breakdown of class barriers and an increase of demographic mobility, occupational diversity and rise in the general standard of living. These improvements resulted in expanded opportunities at all levels of education.

Education in Korea

Korea provides education to its people through formal, non-formal and distance education with an emphasis on balanced developments to reduce disparities between segments of population or regions. This has prompted an equitable distribution of fruits of economic growth.

a. Formal Education

The Korean formal education system is based on six years of elementary school, three years of middle, three years of high school and four years of university or college.

Primary education is compulsory and free of charge. The whole school age children are enrolled, therefore the main problem is classroom congestion, 97% of the primary school children go to middle schol while 88% continue high school education. Higher education in Korea is making also an epochal progress due to reforms and various promotional measures.

b. **Non-formal Education**

When the standard of living improved after socio-economic development and the adult population increasingly sought further education as one of the means of learning to cope with the alternations they encountered in the fast paced environment.

Looking into increasing need for non-formal education, different ministries and institutions have organized non-credit educational activities which in Korea include occupational and technical training as well as general cultural education.

c. **Distance Education**

Dramatic growth in economy increased the student population. As a consequence one of the most pressing problem of student explosion was classroom congestion at elementary and secondary school education. As secondary school's swelling number of aspirations try to complete for further higher studies.

Similarly adults turned to education for improving their working status and enrichment but at their own time and as their situation permitted.

Keeping in view of the congestion of formal institutions and educational needs of adults, *distance education* was conceived. Distance education, at the same time, in the fields of both formal and non-formal education, constitutes a new cost effective alternative for higher education for the adult population and secondary graduates.

The air and correspondence educational system was introduced in Korea to fulfil these concepts of distance education and led to the founding of the Korea Air and Correspondence University.

Korea Air and Correspondence University (KACU)

The Korea Air and Correspondence University was established in 1972 as a branch of Seoul National University, offering two-year junior college courses in five departments. Nine years later, in 1981, it had grown to a five-year programme leading to bachelor's degree. The year 1982 saw it elevated to the status of an independent national small university with nine departments.

By 1984, the number of departments had grown to 13 diverse programmes. This swift increase in departments and degrees offered/responded to the felt need in Korean society. The aims and objectives of the KACU are to:

i. raise the general education level of the people for those high school graduates who cannot pursue a conventional college education;

ii. improve the academic and professional qualities of people;

iii. aim at making a major contribution to the national welfare through higher education.

Organization of KACU

The central organization is divided into three groups. The first is the educational division, the second is academic and student affairs, while the third is the division of general affairs which performs such functions as accounting, procurement and repair and maintenance of facilities.

There are also several affiliated institutions such as the Student Guidance Centre, the Institution of Distance Education, the Computer Processing Centre, the Media Development Centre, the Library, the University Press and KACU Publishing Unit. The Student Guidance Centre is an important organization helping students resolve some of the difficulties inherent in their unique style of learning.

In addition, the University is assisted by the management committee which functions in an advisory capacity over university policy-making. It is their responsibility to advise the President on such matters as long-term development projects, as well as on administrative and academic affairs.

Admission Systems

The educational system of KACU works from matriculation to graduation. Admission is limited to high school graduates or those who have passed the high school equivalency examination. They are selected on the basis of their high school academic standing within the overall admission quota set by the University with the exception that some of the admission quota is reserved for government officers recommended by the heads of governmental agencies.

Students who have completed a minimum of two years at a junior college elsewhere are eligible to the relevant courses of second and third year on the basis of their academic records.

Study System

Students are registered for 15 credits a semester, three credits per subject.

Bachelor degrees are awarded to students who successfully complete the course work of 140 or more credits and pass the qualifying examination for graduation. To those students completing the junior college course with 80 or more credit points, a diploma is presented.

The entire process of teaching and learning includes a variety of activities as:

i. printed materials - correspondence texts, supplementary materials and the university newspaper;

ii. audiovisual materials - radio and t.v. broadcasts, audio and video cassettes;

iii. schoolings - compulsory lectures and practical sessions held at cooperating institutions; and

iv. special lectures.

Printed Materials

As in most distance teaching universities, the primary medium of instruction at the Korea Air and Correspondence University is printed material. Some of the correspondence textbooks are developed by the Professors at KACU, but much is produced by external staff from Seoul National University and Cooperating Institutions. At least one full-time staff member has the responsibility and the time for coordinating the activities on each course and for working on the final drafts. This coordinating task is done through actual meetings of all who are committed and the production of course materials becomes a more cooperative exercise. The final product is frequently insufficiently geared to the needs of distance learners.

KACU also publishes a newspaper more than 40 times a

year to provide students with detailed descriptions of the broadcast lectures, information on the various disciplines from time to time and a column for special lectures. Study guides and information pertinent to university life. Because the paper reaches to all the students by mail regradless of locality, it has established and maintained stable lines of communication among all the members of the KACU community.

Audio and Video Materials

The Korea Air and Correspondence University makes constant adjustments in order to meet the needs of the open system of education and its student body. The lectures are broadcast over the educational radio network of the Korea National Broadcast System (KNBS) at various times of the day, in the morning, afternoon, evening and late night. Given the expense involved, particularly for t.v., the full potential of the media is not being exploited and smaller of programmes per course are telecast. Since the air time is painfully brief, the centre is cultivated to recapture the lectures for replay and storage, among other things.

Copies of all audio and video materials are mass produced and distributed to the regional study centres for use of students who were unable to hear or view the original programmes. The Educational Media Development Centre plans and produces the cassettes used to augment the course work, not for broadcast. The extensive use now being made of cassettes enhances the opportunities for effective teaching better than the more ephemeral broadcasts allows.

Regional Study Centres

The University has regional study centres in major cities and also local study centres in smaller cities and districts. In the regional centres, professors of KACU and the cooperating institutions, assistants and administrative clerks are there to help students by offering counselling and general guidance and for extra curricular activities. The regional and local centres are also the cohesive force for the students keeping them in touch with each other, which is so important for students who are isolated and studying under a more trying circumstances than students of conventional universities.

Written Assignments and Assessment

Students are required to submit several reports on

assigned subjects and readings every semester. These reports are sent to the teaching staff for correction and comments. They are returned to the students for self-study and review. The results of these assignments are used for evaluation of the students overall academic performance.

The student's academic work is also evaluated by means of two examinations, as well as the written assignments. The first examination is an objective test covering the broadcast lectures administered directly by KACU. The second examination is subjective and is conducted and evaluated by the professors of cooperating institutions where the schooling has taken place.

The assessment system is as follows:

Method	Radio
Subject with schooling:	
a) first part examination (as objective test)	70%
b) second part examination (a subjective test)	30%
Subject without schooling:	
a) first part examination (an objective test)	70%
b) written assignments	30%

Experiential and Practical Work

For those courses requiring experimental and practical work like Computer Science, Agriculture and Home Economics, the University tries to provide them the experimental and practical work during the schooling period. Also planned that the students themselves will be furnished with experimental kits, designed to insure hands-on training as well.

Dropouts

As with most distance education institutions, the KACU also faces the problem of high rate of dropouts. A high number of the first year students dropout of the university before they reach their second year, while second year students show the next higher percentage of dropouts. A survey of KACU students highlighted "Maladjustment in self-learning methods" as one of the major negative factors.

To reduce the number of dropouts the University is taking all possible measures like, changing the day-time schooling sessions by providing the facility of weekend and evening schooling.

NEWS AND VIEWS

by

Abdul Rashid Malik

During the period of three and half years, July 1988 to December 1991, the Allama Iqbal Open University had to pass through a very uncertain administrative and academic instability. Two Vice-Chancellors were appointed one after another within a very short space of only one and a quarter years. Before these critical years, however, the University had won Noma International Award for literacy and received many distinguished guests and consultants from abroad. Important conferences, seminars, workshops symposia were held, various staff members were sent for training abroad and participation in international conferences.

APPOINTMENTS OF VICE-CHANCELLORS

An important event that occured during this period was the appointment of three renowned scholars as a Vice-Chancellors of the Allama Iqbal Open University. These were:

- Dr. M. H. Qazi, an eminent scientist and educationist who remained in office from *April 9, 1989* to *November 15, 1989* with additional charge of the University because he was also the Academic Adviser to the University Grants Commission.
- Mr. Amar Jalik Kazi, formerly Director, Institute of Educational Technology, AIOU who worked from *November 15, 1989* to *August 15, 1990*. This was his additional charge of the University since he was on deputation from Pakistan National Council of Arts as Director General.
- Dr. W. M. Zaki, a renowned educationist who was the founder Vice-Chancellor of this University with effect from August 15, 1990.

NOMA INTERNATIONAL AWARD

The UNESCO Awarded Noma International Award for

Literacy 1988 to Allama Iqbal Open University for its outstanding performance in the field of literacy in the country. The award was given to the University in an international function organized by the UNESCO at its Paris Office on 8th September 1988.

FOREIGN DELEGATION/VISITORS TO AIOU

The University had a large number of consultants and visitors during this period. Among those were:

- The Bangladesh Open University Feasibility Study Group led by Mr. Hidayat Ahmed, Education Secretary, consisting of senior experts. The group visited the University for a four-day-visit from October 26, 1988 to explore ways and means to help establishing Bangladesh Open University.

- Mr. Leu Janke, Deputy Director General of the Chinese National Commission for UNESCO visited AIOU on October 17, 1988 to discuss the prospects of distance education system in developing countries.

- A delegation of the Agha Khan Education Service Foundation led by Mr. Asif Fancy, held a meeting with AIOU team, headed by the Vice-Chancellor and discussed the prospects of collaboration between the two agencies for the Northern Areas.

- Mrs. Lynda Chalker, UK Minister for overseas development visited AIOU on 7th December 1989. Mrs. Chalker showed great interest in library programmes, the Institute of Educational Technology and the Print Units. She also visited one of the University's centres for Integrated Functional Literacy. Mrs. Chalker was briefed about the future plans of the University. She showed great interest in these plans.

- Mrs. Richard Francis, Director General of the British Council visited the University Campus on 20th May 1989. She desired to maintain working together, keeping mutuality of interest, in view.

- Mr. A. Christodolou, Secretary General of the Association of Common-wealth Universities, London also visited the AIOU on 8th October 1989.

- Sheikh Shaheedul Islam, Bangladesh Minister of

Education, visited AIOU on 9th November 1989 and discussed the prospects of collaboration between AIOU and Bengladesh, with the Vice-Chancellor and senior faculty members of the University.

- Thirty-four member-deletation of Dhaka University comprisitng of thirty students and four professors visited AIOU on 11th November 1989.

- A five member Chinese Educational delegation came on 10th December 1989.

- A group of fifty students and field staff visited the AIOU on 13th November 1990, under a protocol agreement between the Government of Pakistan and Canada World Youth Exchange Programme.

- A six-members research team from the National Institute of Multimedia Education, Japan remained on the campus from 18–23 December 1990. However, Mr. Hiroo Saga, the team leader had come to the AIOU Research and Evaluation Centre in early November 1990.

- Professor Federico Mayor, Director General of UNESCO visited on 12th March 1990. He appriciated the role of AIOU in the uplift of education in Pakistan.

- Professor G. M. Ram Reddy, Vice-president of Commonwealth of learning visited on 2nd and 3rd of June, 1990. He discussed various issues of common interest.

- A three member-delegation of the Common-wealth Fund for Technical Cooperation visited AIOU on 18th June 1990. The delegation discussed the needs of AIOU for technical training and identified areas to be followed by consultancies/expert advice.

- Professor A. P. R. Aluwimare, Chairman, University Grants Commission, Sri Lanka visited on 25th August 1990 in order to examine critically the distance learning system. He was much impressed with the plans and achievements of AIOU in the improvement of literacy rate and training in the development of different skills.

- Mr. Sergic N. Sheyehenko and Mr. Feodor F. Yarinov, experts of the Russion State Committee for Education come on 18th September 1990.

- A six member Saudi Commerce, Industry and Commodity Exchange delegation, visited on 8th December 1990. The delegation donated a sum of hundred thousand rupees for building a mosque in the AIOU residential colony.

CONFERENCES, SEMINARS AND WORKSHOPS

During this period various conferences, seminars and workshops were held at the campus of AIOU. More important among those held were:

1. **International Round-table Conference on "Distance Education in South Asia"**

   The first International Round-table, Conference on Distance Education in South Asia was held at AIOU campus from 5–8 November 1989, with the sponsership of Asian Development Bank, AIOU and Ministry of Education, Pakistan. The representatives of all SAARC member countries attended the conference. The main objectives of the conference was consideration for possible regional cooperation in the field of distance education among the SAARC member countries.

2. **AAOU/DERRC Board Meeting and AAOU Seminar on "Open Universities of Asia: Problem and Prospects" (9–11 November, 1989)**

   The board meeting of Distance Education Regional Resource Centre (DERRC) and Asian Association of Open Universities (AAOU) seminar on "Open Universities of Asia: Problems and Prospects" was held in the Allama Iqbal Open University from 9–11 November 1989. The members of AAOU were already present at the campus for attending the Round-table Conference. The AAOU requested the AIOU to host and make necessary arrangements for its board meeting and seminar. Mrs. Razia Abbas, Director, Bureau of University Extension and Special Programme opted as liaison officer by AAOU to lookafter all arrangements.

3. **Conference on "Organising and Management of Academic Staff Development Units in Universities" (17–22 March, 1990)**

   Allama Iqbal Open University, in collaboration with UNNESCO, the Ministry of Education and the University

Grants Commission, organised an international conference on "Organisation and Management of Academic Staff Development Units in Universities" from 17–22 March, 1990.

4. **Seminar on "Statistics for Development" (17–18 February, 1990)**

A seminar on Statistics for Development was held on the University campus from 17–22 February 1990 sponsored by Allama Iqbal Open University and the Islamic Society of Statistical Science, Lahore.

a. Highlight the role of statistics in the development of Pakistan;

b. bring together statisticians and the use of statistics for mutual exchange of views in order to make the best use of statistics in developments;

c. suggest measures for improving the quality of data and to coordinate research and survey efforts of the statisticians working in various fields.

5. **Workshop on "Interactive Video" (4–7 March, 1990)**

A three day workshop on interactive video with the collaboration of Faculty of Technology UK Open University was held from 4–7 March 1990. This workshop was for the Faculty of Basic and Applied Sciences and the Institute of Educational Technology.

6. **Workshop for Teachers of Hearing-impaired Children (16–25 November, 1991)**

This ten days workshop was held from 16–25 November 1991 as part of the postgraduate diploma/M Ed programme. Forty-five teachers attended the workshop from all over the country. Mrs. Megan Robson and Miss Janet Garrett, from UK were the tutors.

The workshop was inaugrated by Mr. S. M. Hassan, Director General/Additional Secretary for Social Welfare and Special Education. Syed Fakhar Imam, Federal Minister of Education was the Chief Guest at the closing ceremony of the workshop.

7. **International Symposium on Women's Education (23–27 September, 1991)**

The symposium, sponsored by the Commonwealth of Learning, was held at the campus from 23–27 September 1991. The symposium was attended by 13 members from Australia, Bangladesh, Maldives, Newzealand, India, Pakistan, Papua New Guinea, Solomon Islands, Sri Lanka and Tonga. Syed Fakkar Imam, Federal Minister for Education inaugurated, while Mr. Sartaj Aziz, Federal Minister for Finance was the guest speaker at the closing ceremony held on Friday, 27th September 1991. The Vice-Chancellor of AIOU Dr. W. M. Zaki welcomed the guests, particularly those visiting from other countries.

ASIA FOUNDATION GIFT FOR AIOU

The Asia Foundation gifted 1,600 books for AIOU central library and regional campus. Mr. Amar Jalil Kazi, the then Vice-Chancellor AIOU, thanked the foundation for its valuable contribution to enrich the University library.

AIOU/PETROMAN COMPUTER EDUCATION COLLABORATION

Realizing the importance of computer in this modern age, the University has started collaboration with PETROMAN, the industrial training division of the National Petrochemical Industry, PERAC, which functions under the Ministry of Production, Pakistan.

Since 25th October 1991 hundreds of students have started seeking admission in one year diploma course in "Computer Applications" at Islamabad, Lahore, Hyderabad and Peshawar. The University will award Post-Intermediate Diploma in "Computer Application", to the students on successful completion of the course.

As per agreement, PETROMAN will build training blocks in coming future at the main campus Islamabad and Lahore Regional Office. These blocks will be handed over to the University free of cost, after 10–15 years.

INTRODUCTORY VISIT OF THE EDUCATION MINISTER TO AIOU

Syed Fakhar Imam, Minister of Education paid his first

visit as Pro-Chancellor of the University on 23rd April 1991. In the absence of the Vice-Chancellor, Dr. W. M. Zaki who was on his visit abroad, Professor Dr. I. N. Hassan welcomed the Minister. The Minister was briefed about the University's objectives and achievements in various programmes and projects. The Minister, visited radio and TV studios, Central Library, Computer Centre and the University Press. He appreciated the developments and achievements of the University and assured his support for its future development.

EQUIVALENCE FOR AIOU WOMEN'S MATRIC CERTIFICATE PROGRAMME

The equivalence committee of Inter-board of Chairman held on 29th November 1989, gave recognition to the matriculation programme of Allama Iqbal Open University, being offered by the Department of Women's Education.

ODA PHASE-IV

UK Overseas Administration Development (ODA) is supporting the University since 1976. The aid has been in the form of equipment, materials, consultancies and training. Phase-III of this assistance has been completed.

An ODA Educational Mission visited the University in May 1989 for one week to discuss the final shape of the fourth-phase for support. An agreement was reached in principle on a further three years programme of inputs, with an emphasis on three main areas: improvement of course quality at all levels, further development of the regional services and University's outreach system and staff development.

The value of phase-IV will be more than 2½ million pounds or Rs.8 crore, which is 60% more than phase-III.

EXECUTIVE COUNCIL MEETING

The 46th meeting of the Executive Council of the AIOU was held on 28th November 1991, at the campus. Dr. W. M. Zaki, Vice-Chancellor, presided the meeting. The distinguished members present were Mr. Justice Afzal Zaullah, the Chief Justice of Pakistan, Dr. Noor Jehan Panezai, Deputy Chairperson of Senate; Mr. Justice Dr. Fida Muhammad Khan, Judge of the Federal Shariat Court; Mr. Saeed Ullah Shah, Financial and Planning Adviser, University Grants

Commission; Mr. H. H. Beg, Former Federal Secretary of Finance; Professor Dr. A. H. Dani, the renowned Historian; Mr. Agha Nasir, Director General, Pakistan Television Corporation, Professor Dr. Manzoor Ahmed, Director General, Central News Organization PBC. Some other high-ranking government officials also attended the meeting alongwith University officers and staff representatives.

STAFF DEVELOPMENT

The following University staff received training, attended conferences/symposiums/workshops and meetings abroad during this period:

S. No.	Name	Subject
1.	Dr G A Allana	Regional seminar on the establishment of a Regional Resource Centre in Distance Education and Executive Committee Meeting of the Sukhethai Open University in Thialand from 27th June to 1st July 1988.
2.	Dr G A Allana	14th World Conference on Distance Education in Oslo, Norway from 9–16 August 1988.
3.	Dr Ahmed Noor Khan	IDRC Open University meeting on research in Singapore from 4–7 July 1988.
4.	Mr Muhammad Asrar	Group training course (91) in colour television engineering (Fundamental) in Japan from 18th July to 2nd October 1988.
5.	Dr Miss I N Hassan	Senior Fulbright Research Award at California University in USA from 15th August 1988 to 14th May 1989.
6.	Dr M S K Shibli	Eleventh All India Persian Teacher's Conference in Srinagar from 29th September to 1st October 1988.
7.	Mr Mujahid H Nizami	Regional Training Workshop for

		the Development of Slides, Tapes and Video Cassettes Tapes on Population Education in Malaysia from 18th October to 2nd November 1988.
8.	Dr M Athar Khan	Regional Workshop on Organization and Management of Teaching Learning Units in Universities in Nepal from 30th October to 4th November 1988.
9.	Dr M Arif Zia	Regional Workshop on Distance Education in Teacher Education Strategic Development Tasks to Meet the Needs of Girls, Disadvantaged Group and those Remote Areas in Indonesia from 1–9 November 1988.
10.	Mrs Razia Abbas	Second Inter Regional Seminar in Germany from 31st October to 12th November 1988.
11.	Dr G A Allana	First World Congress on Engineering Education and Training in Nepal from 13–15 November 1988.
12.	Dr M S K Shibli	International Congress in the Commemoration of Hafiz in Iran from 19–22 November 1988.
13.	Dr Muhammad Riaz	International Congress in the Commemoration of Hafiz in Iran from 19–22 November 1988.
14.	Prof Javed Iqbal Syed	Workshop on Human Resource Development for Foreign Trade in Phillipine from 5–9 June 1989.
15.	Mrs Razia Abbas	Seminar in Nairobi from 13–17 March 1988.
16.	Mr Abid H Khawaja	Training in the field of Educational Television Programme (Advanced) in Japan from 16th January to 5th March 1989.

17.	Dr Ahmed Noor Khan	Sixth triennial conference in Netherland from 3–13 August 1989, sponsored by World Council for Curriculum and Instruction.
18.	Mr Ghulam Haider Bhurgri	International workshop on Film Animation for Development in Prague from 26–31 March 1990.
19.	Dr Miss I N Hassan	Conference on training in Distance Education in Canada from 2–6 April 1990.
20.	Mr Khalil Ahmed Ansari	GTC Educational TV Programme in Japan from 17th May to 1st July 1990.
21.	Mrs Razia Abbas	Distance teaching for Non-formal Education in Nairobi from 6–9 June 1990.
22.	Dr M Daud Awan	Education Reforms and Innovations Facing the 21st century in Spain from 2–7 July 1991.
23.	Prof Javed Iqbal Syed	Study fellowship programme being organized by Commonwealth of learning in Canada from 9–29 September 1990.
24.	Mr Abdul Razaque Memon	Cultural scholarship for higher studies in China for the year 1990-91.
25.	Mr Arshad Mehmood	Cultural scholarship for higher studies in China for the year 1990-91.
26.	Mr Javed Mehmud Kasuri	International Broadcasting Equipment Exhibition in Japan from 7–9 November 1990.
27.	Dr Muhammad Riaz	1000th Anniversary of the Composition of Shahnama of Ferdowsi in Iran from 22–26 December 1990.
28.	Dr Abdul Qayyum	The Commonwealth of Learing Regional Workshop in India from 3–14 December 1990.

29.	Mr Javed Mehmud Kasuri	The Commonwealth of Learing Regional Workshop in India from 3–14 December 1990.
30.	Mr Abdul Sattar Malik	Four month course in Financial Planning Monitoring and Analysis, UK from 9th March 1990.
31.	Mr M Farooq Solangi	Four month training under ODA programme from 26th March 1990.
32.	Mrs Farrukh Tahir	Four month training under ODA programme from 26th March 1990.
33.	Mr Ahmed Javed Jafri	Four month training under ODA programme from 26th March 1990.
34.	Mr Muhammad Qasim Haider	Training Educational Television Programmes (Advanced), Japan from 14th January to 23rd March 1991.
35.	Mr Ilyas Ahmed	Four month training course in UK, and two month attachment: - Management in Higher Education - Personnel Management
36.	Dr W M Zaki	Exchange visit: Management of Higher Education, UK Open University, IEC, London University and other distance learning institutions in UK from 11–24 March 1991.
37.	Dr Mrs Mussarat Anwar	Four week Universities study for Secondary School Educationists, USA from 18th March 1991.
38.	Mrs Raazia Waseem	Special project in USA on Teaching English as Second Language from 18th March to 13th April 1991.
39.	Dr Muhammad Rashid	Four month "Distance Education for Development" training, London, UK, from 5th April to 26th July 1991.

40.	Mr M Ahmed Zaidi	Four month "Distance Education for Development" training, London, UK, from 5th April to 26th July 1991.
41.	Mrs Zahida Qazi	Four month "Distance Education for Development" training, London, UK, from 5th April to 26th July 1991.
42.	Dr Muhammad Riaz	Regional Seminar on Shah-e-Hamadan at Hamadan, Iran, August to October 1991.
43.	Dr Miss I N Hassan	Asian Pacific Workshop for Senior Women Administrators in Higher Education, Malaysia from 17th July to 5th August 1991.
44.	Miss Nighat Bashir	Workshop for Development of Reading Materials for Women's Self-relance in Thiland from 17th July to 5th August 1991.
45.	Mrs Shagufta Siraj	One year M Ed in TOEFL under ODA/Technical Assistance Programme in UK, 1991.
46.	Dr Zulkaif Ahmed	Population Education, Technical Exchange Programme in South Asian Countries in Bangladesh from 18th August to 5th September 1991.
47.	Miss Tamkanat Niazi	Common-wealth of Learning Fellowship Programme, Canada from 6th September to 1st October 1991.
48.	Mr Shahid Kaleem Siddiqui	Higher Studies (Ph.D) under Canadian Common-wealth Scholarship 1991.
49.	Mrs Rukhsana Masood	Higher Studies at University of Exeter, UK, under Central Overseas Training Scholarship 1990-91 Programme.

TALIMI TAHQIQ

(Educational Research)

By

Prof Muhammad Faiq
Published by Federal Govt Urdu College Karachi

Pages:	272
Size:	20x30/8
Price:	Rs.75
Year of publication:	1987

Education is considered to be a subject having utmost importance. Its far-reaching effects play a pivotal role in making of the nation. The people who have attained a prominent place in the human history and glorified the whole universe with their thought - provoking ideas, are solely enriched with the refining rays of education. It is because of this unbounded blessings of the subject that innumberable books on the topic have had been written in all the languages of advanced countries. Even a thorough research has been carried on to explain, predict and analyse the problems involved in this particular field. As such, the said subject has come to light having no illusion and implication. This trend has invariably widened the horizon of knowledge and learning, which in turn has geared up the development process in the western countries.

It is an irony of fate that in Urdu, the national language of Pakistan, no such concrete steps have been taken so far. The students of the subject have to rely upon the sources available in English. They have to go through the educational concepts of the West totally different from that of Eastern views. It has undoubtedly created a complex which drastic effects cannot be removed easily.

The commendable credit to impart educational subjects in Urdu vehemently goes to Federal Government Urdu College, Karachi. It was in 1985s that the institution started MA In Education and luckily the competent author of the book under review was tipped for its supervision. He, as head of the department, endeavoured hard to pave the way for imparting this sophisticated subject in Urdu. For this very act he has

to go through tiresome troubles as no source material was available in his mother tongue. He was compelled to start afresh, and he proved to be successful in the field. He is regarded the first to inflame the lamp of educational learning in Urdu language.

Since the Professor was also entrusted with the task of guiding MA students in educational research, he has to undertake the responsibility of preparing a comprehensive book on this very topic. This title under review is the outcome of his scientific study of the subject. He elaborately deals with the vast topic and enables the students to have a grip over it.

The competent author emphatically highlights the scientific way of research, application of the scientific method in educational research, its definition, purpose and process, its main characteristics and general guidelines. He has candidly conducted the general rules for preparing research reports, writing thesis and dissertation and the selected system for format and style. He has even convered up all those pertinent problems faced by the teachers and the taughts. Thus the learned author has touched up such a topic which has been hitherto out of reach for those not familiar with the foreign media. It may not be denied that Professor Faiq's findings have lit up such a lamp which golden rays are not only valuable for educationists but even for literary giants. The lovers of Urdu language must bow their heads in respect for the author.

Dr Mahmudur Rahman
Director, Daftri Urdu

DATA BANK

STATISTICAL GLIMPSES OF ALLAMA IQBAL OPEN UNIVERSITY

by

Waqar Ahmed Siddiqi

PROGRAMME-WISE NUMBER OF COURSES OFFERED BY AIOU DURING 1988-89 TO AUTUMN 1991 SEMESTER

S. No.	Programme/level	1988-89	1989-90	1990-91	Autumn 91
1.	Functional (Non-credit) Courses	10	11	11	3
2.	Women's Education (Matric)	20	16	13	17
3.	Intermediate	40	44	39	39
4.	BA/BBA/B. Com	53	54	55	58
5.	MA (EPM)	10	9	8	6
6.	M. Sc (Pak. Studies)	10	6	12	5
7.	MBA	16	22	26	14
8.	Teaching of English as a Foreign Language (TEFL)	4	2	4	2
9.	Population Education (Post-graduate level)	1	1	1	-
10.	M. Ed (Diploma in Special Edu.)	-	-	5	8
11.	B. Ed	8	10	10	10
12.	PTC	3	4	4	9
13.	CT	5	6	7	9
14.	B. Ed (Arabic)	-	4	-	-
15.	Arabic Teachers Training Course (ATTC)	1	1	-	-
16.	M. Phil Islamiyat	3	3	3	1
17.	M. Phil Iqbaliyat	3	4	4	2
18.	M. Phil Urdu	3	3	3	3
19.	M. Phil Education	8	4	4	2
20.	*Methods of Research (711)	1	1	1	1
21.	PETROMAN Computer Course (Degree level)	-	-	-	4
	Total	199	205	210	193

* Methods of Research (711) is a course not a programme. In beginning it was common course at M. Phil level, but now it is being offered under M. Phil, Islamiyat programme.

PROGRAMME/LEVEL-WISE AND GENDER-WISE COURSE ENROLMENT 1988-89

Course enrolment was 1,54,245 during 1987-88. The course enrolment during 1988-89 reached a height of 1,90,446 this shows a 23% increase in the course enrolment during the academic year 1988-89 as compared to prior year 1987-88.

The following table gives programme-wise details of enrolments during the year 1988-89.

Sr. No.	Programme/level	Semesters									Academic year 1988-89		
		Autumn 1988			Spring 1989			Summer 1989					
		M	F	T	M	F	T	M	F	T	M	F	T
1.	Functional (Non-credit) Courses	1516	512	2028	1761	451	2212	-	-	-	3277	963	4240
2.	Women's Education (Matric)	-	9395	9395	-	12897	12897	-	-	-	-	22292	22292
3.	Intermediate	18107	11661	29768	20095	13181	33276	1	1	2	38203	24843	63046
4.	BA/BBA/B. Com	17414	5380	22794	19718	6323	26041	-	-	-	37132	11703	48835
5.	MA (EPM)	376	119	495	225	95	320	-	-	-	601	214	815
6.	M. Sc (Pak. Studies)	666	182	848	208	51	259	-	-	-	874	233	1107
7.	*MBA	1599	28	1627	755	8	763	-	-	-	2354	36	2390
8.	Teaching of English as Foreign Language (TEFL)	182	95	277	57	55	112	-	-	-	239	150	389
9.	Population Education (Post-graduate level)	456	93	549	303	16	319	-	-	-	759	109	868
10.	*B. Ed	1758	1232	2990	12105	5842	17947	-	-	-	13863	7074	20937
11.	*PTC	-	-	-	-	-	-	12262	6354	18616	12262	6354	18616
12.	*CT	-	-	-	-	-	-	4126	1065	5191	4126	1065	5191
13.	Arabic Teachers Training Course (ATTC)	-	-	-	-	-	-	842	136	978	842	136	978
14.	M. Phil Iqbaliyat	81	23	104	34	10	44	-	-	-	115	33	148
15.	M. Phil Islamiyat	46	7	53	77	12	89	-	-	-	123	19	142
16.	M. Phil Urdu	76	23	99	33	13	46	-	-	-	109	36	145
17.	M. Phil Education	71	29	100	46	18	64	-	-	-	117	47	164
18.	Methods of Research (711)	49	7	56	67	20	87	-	-	-	116	27	143
	Total	42397	28786	71183	55484	38992	94476	17231	7556	24787	115112	75334	190446

* MBA - Master of Business Administration

* B. Ed - Bachelor of Education

* PTC - Primary Teacher Certificate

* CT - Certificate of Teaching

PROGRAMME/LEVEL-WISE AND GENDER-WISE COURSE ENROLMENT 1989-90

Course enrolment was 1,90,446 during 1988-89. The course enrolment during 1989-90 reached a height of 2,35,296 (including 90,352 NETCOM enrolment) this shows a 24% increase in the course enrolment during the academic year, 1989-90 as compared to prior year, 1988-89.
The following table gives programme-wise details of enrolments during the year 1989-90.

Sr. No.	Programme/level	Semesters									Academic year 1988-89		
		Autumn 1989			Spring 1990			Summer 1990(NETCOM)*					
		M	F	T	M	F	T	M	F	T	M	F	T
1.	Functional (non-credit) courses	884	272	1156	643	187	830	501	32	533	2028	491	2519
2.	Women's Education (Matric)	-	11219	11219	-	596	596	-	649	649	-	12464	12464
3.	Intermediate	17586	11985	29571	16745	12084	28829	14363	976	15339	48694	25045	73739
4.	BA/BBA/B. Com	17341	5806	23147	17007	5871	22878	-	-	-	34348	11677	46025
5.	MA (EPM)	194	83	277	223	76	299	-	-	-	417	159	576
6.	M. Sc (Pak. Studies)	636	205	841	-	-	-	-	-	-	636	205	841
7.	*MBA	1618	46	1664	1026	20	1046	-	-	-	2644	66	2710
8.	Teaching of English as Foreign Language (TEFL)	143	98	241	1	-	1	-	-	-	144	98	242
9.	Population Education (Post-graduate level)	420	79	499	452	68	520	-	-	-	872	147	1019
10.	**B. Ed	6354	2485	8839	8002	3228	11230	9991	3046	13037	24347	8759	33106
11.	PTC	-	-	-	-	-	-	33074	9634	42708	33074	9834	42708
12.	CT	-	-	-	-	-	-	13645	4441	18086	13645	4441	18086
13.	Arabic Teachers Training Course (ATTC)	-	-	-	561	146	707	-	-	-	561	146	707
14.	M. Phil Iqbaliyat	79	26	105	26	11	37	-	-	-	105	37	142
15.	M. Phil Islamiyat	34	6	40	53	10	63	-	-	-	87	16	103
16.	M. Phil Urdu	59	33	92	23	16	39	-	-	-	82	49	131
17.	M. Phil Education	44	7	51	1	-	1	-	-	-	45	7	52
18.	Methods of Research (711)	47	7	54	51	21	72	-	-	-	98	28	126
	Total	45439	32357	77796	44814	22334	67148	71574	18778	90352	161827	73469	235296

* National Education and Training Commission.
** Course enrolment for B Ed (Arabic) was 200 which is included in B Ed programme.

PROGRAMME/LEVEL-WISE AND GENDER-WISE COURSE ENROLMENT 1990-91

Course enrolment was 1,44,944 (excluding 90,352 NETCOM enrolment) during 1989-90. The course enrolment during 1990-91 reached a height of 1,73,790. This shows a 20% increase in the course enrolment during the academic year 1990-91 as compared to prior year 1989-90.
The following table gives programme-wise details of enrolments during the year 1990-91.

Sr. No.	Programme/level	Semesters						Academic year 1990-91		
		Autumn 1990			Spring 1991					
		M	F	T	M	F	T	M	F	T
1.	Functional (Non-credit) Courses	343	179	522	446	153	599	789	332	1121
2.	Women's Education (Matric)	-	6679	6679	-	-	-	-	6679	6679
3.	Intermediate	15229	12250	27479	13633	10816	24449	28862	23066	51928
4.	BA/BBA/B. Com	15573	5577	21150	15588	5340	20928	31161	10917	42078
5.	MA (EPM)	140	56	196	309	110	419	449	166	615
6.	M. Sc (Pak. Studies)	24	9	33	145	37	182	169	46	215
7.	MBA	2125	124	2249	1427	71	1498	3552	195	3747
8.	Teaching of English as Foreign Language (TEFL)	101	78	179	521	200	721	622	278	900
9.	PGD in ELT	-	-	-	3	-	3	3	-	3
10.	Population Education (Post-graduate level)	181	36	217	208	54	262	389	90	479
11.	M. Ed (Diploma in Special Edu.)	96	64	160	35	23	58	131	87	218
12.	B. Ed	2804	1253	4057	26698	6542	33240	29502	7795	37297
13.	PTC	-	-	-	13756	7684	21440	13756	7684	21440
14.	CT	-	-	-	4554	1837	6391	4554	1837	6391
15.	M. Phil Iqbaliyat	91	18	109	34	6	40	125	24	149
16.	M. Phil Islamiyat	49	7	56	78	12	90	127	19	146
17.	M. Phil Urdu	85	30	115	36	12	48	121	42	163
18.	M. Phil Education	50	18	68	-	-	-	50	18	68
19.	Methods of Research (711)	58	9	67	69	17	86	127	26	153
	Total	36949	26387	63336	77540	32914	110454	114489	59301	173790

PROGRAMME-WISE AND GENEDER-WISE COURSE ENROLMENT
SEMESTER AUTUMN 1991

Sr. No.	Programme/level	M	F	T
1.	Functional (Non-credit) Courses	272	125	397
2.	Women's Education (Matric)	18	3441	3459
3.	Intermediate	12204	10448	22652
4.	BA/BBA/B. Com	14202	4621	18823
5.	MA (EPM)	286	95	381
6.	M. Sc (Pak. Studies)	784	347	1131
7.	MBA	2698	129	2827
8.	TEFL	366	159	525
9.	M. Ed (Diploma in Special Education)	394	224	618
10.	B. Ed	18832	4545	23377
11.	PTC	19638	10819	30457
12.	CT	5212	2323	7535
13.	M. Ed	134	49	183
14.	M. Phil Islamiyat	70	16	86
15.	M. Phil Urdu	89	20	109
16.	M. Phil Education	70	20	90
17.	Methods of Research (711)	70	16	86
18.	PETROMAN Computer Courses (Degree Level	2385	188	2573
	Total	77724	37585	115309

ENROLMENT OF BASIC FUNCTIONAL EDUCATION PROGRAMME (BFEP)

***RCRC Kharian 1988 to 1991**

Year	No. of Cycles	No. of Learners
1987-88	8	822
1988	9	870
1988-89	10	718
1989	11	723
1989-90	12	725
1990	13	1200
1990-91	14	950
1991	15	1298
1991-92	16	1150

* Rural Course Research Centre

*RCRC Uch Sharif 1988 to 1991

Year	No. of Cycles	No. of Learners
1988	4	690
1988	5	625
1989	6	540
1989	7	600
1990	8	800
1990	9	600
1991	10	907
1991	11	800

ACHIEVEMENTS OF INTEGRATED FUNCTIONAL LITERACY PROJECT (IFLP) 1986–90

Location	Total Enrolment	Literacy (Passed)	Class 3 (passed)	Class 4 (passed)	Class 5 (passed)
Rawalpindi/Islamabad:					
a. First cycle	339	302	265	264	200
b. Second cycle	379	304	262	209	116
Kharian	151	135	130	89	65
Uch Sharif	176	115	90	90	83
**University	37	31	24	21	13
Khaur	55	25	-	-	-
Total	1137	912	771	673	477

***IET Production upto June 1992

1.	Radio broadcast audio programme	1759
2.	Non-broadcast audio cassettes	174
3.	Broadcast TV programme	269
4.	Non-broadcast TV programme	25
5.	Sound and slide programme	17
6.	Audio cassettes flip charts programme	19

* Rural Course Research Centre
** Allama Iqbal Open University
*** Institute of Educational Technology

AIOU's Radio and Television Programmes (Transmission)

Semester	Radio programme	TV programme
Autumn 88	467	68
Spring 89	316	77
Autumn 89	321	75
Spring 90	351	69
Autumn 90	234	48
Spring 91	234	53
Autumn 91	310	40

PROVINCE-WISE AND SEMESTER-WISE STATISTICS OF PART-TIME TUTORS

Province	Semester						
	Autumn 88	Spring 89	Autumn 89	Spring 90	Autumn 90	Spring 91	Autumn 91
NWFP	131	244	173	297	102	51	65
Baluchistan	82	91	96	84	52	24	14
Sindh	265	413	489	369	287	116	81
Punjab	1161	1430	1185	1402	1108	800	742
Federal Area Islamabad	176	188	122	128	133	132	101
Azad Jammu & Kashmir (AJK)	123	164	152	126	102	71	46
Northern Areas	71	115	98	79	70	50	43

PROVINCE-WISE AND SEMESTER-WISE STATISTICS OF STUDY CENTRES

Province	Semester						
	Autumn 88	Spring 89	Autumn 89	Spring 90	Autumn 90	Spring 91	Autumn 91
NWFP	19	25	24	29	16	20	22
Baluchistan	17	16	15	15	14	12	17
Sindh	64	78	73	60	47	56	72
Punjab	78	89	90	116	83	108	84
Federal Area Islamabad	9	9	9	9	9	9	9
Azad Jammu & Kashmir (AJK)	14	9	13	9	9	9	10
Northern Areas	13	15	14	9	7	7	16

PROGRAMME/LEVEL-WISE NUMBER OF BOOKS PRINTED

Sr. No.	Programme/level	1988-89	1989-90	1990-91	Autumn 91
1.	Functional (Non-credit) Courses	3644	4500	3000	-
2.	Women's Education (Matric)	38882	59476	217	3996
3.	Intermediate	110304	142438	77635	4000
4.	BA/BBA/B. Com	88270	62799	98340	2554
5.	MA (EPM)	1497	-	6200	-
6.	M. Sc (Pak. Studies)	-	1550	3200	-
7.	MBA	1000	9887	5995	-
8.	Teaching of English as Foreign Language (TEFL)	4800	-	-	-
9.	Population Education (Post-graduate Level)	5000	-	-	-
10.	M. Ed Diploma in Special Edu.	1000	-	-	-
11.	B. Ed	55237	38662	29114	13145
12.	CT	4500	20404	27933	3438
13.	M. Phil Iqbaliyat	500	500	-	498
14.	M. Phil Islamiyat	-	190	100	-
15.	M. Phil Urdu	1042	-	-	-
16.	M. Phil Education	-	-	500	-
17.	Methods of Research (711)	250	-	100	300

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ALLAMA IQBAL OPEN UNIVERSITY

SPECIAL PUBLICATIONS

■ Iqbal Bachchon Aur Nojawanon Kay Liye	(Urdu)	Rs.17.50
■ Harf-e-Iqbal	(Urdu)	Rs.40.00
■ Role of Distance Teaching System in Rural Development with special reference to AIOU	(English)	Rs.30.00
■ Taqaareer Bayad-e-Iqbal	(Urdu)	Rs.18.00
■ Tasheel-e-Khutbaat-e-Iqbal	(Urdu)	Rs.31.00
■ Mutaaliya-e-Bible Wa Qur'an	(Urdu)	Rs.18.00
■ Urdu Main Aalmi Adab Kay Tarajim	(Urdu)	Rs.18.00
■ Allama Iqbal Aur Baluchistan	(Urdu)	Rs.65.00
■ Iqbaliat Ka Mozuaati Tajzai Aasharia	(Urdu)	Rs.90.00
■ Zaban Aur Saqafat	(Urdu)	under print

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