

RESEARCH AND DEVELOPMENT IN DISTANCE EDUCATION – A PERSPECTIVE FROM PAKISTAN

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ABSTRACT

This research review study outlines the developmental efforts by means of which the system of distance education and open learning are encouraged to be implemented in Pakistan for its socio-economic and educational development. In the futuristic planning of distance education, the system would widen its experiences and conceptual horizons, develop its infrastructures and human resources and fortify its methodologies, techniques and tactics to be able to meet the challenges for development. This will establish the life long distance learning by individuals and a learning society for all in preparation for the requirements and demands of rapid change that would arise as a nation moves ahead in its developments. Distance education may be seen at the crossroads of development choices whereas the educational development and research are future oriented rather than being only a medium for transmission of the past. The setting of goals for distance education becomes especially important strategy in effecting the change. The recommendations and suggestions of the COL-2002 conference will be taken into account of the current status, constraints and achievements in the global scenario of distance learning. These will constitute a framework of measure that may be incorporated in the research and developmental plan of distance and virtual education in Pakistan.

(Key words): Distance Education, Development, Research Methodology, Futuristic Approach, Pakistan.

THE INTRODUCTORY & SCIENTIFIC SPIRIT

Science and technology has never before demonstrated so fantastically the extent of their power and potential. Knowledge is making a significant and marvelous progress. Research and innovations are being institutionalized. The constantly narrowing gap between large number of scientific and their large-scale application,

is another striking indication of this phenomenon. Science and technology have now become essential component of any educational enterprise whether formal or informal and have been incorporated in all educational activities for all types of clientele. The integration of science and technology with human life, aims at to help the individuals to control social energies and nature forces thereby achieving mastery over themselves, their choices and activities and finally acquire "scientific frame of mind" so that they could promote further science without being enslaved by it.

The contents of man's universe has been changed together he takes if or not whenever he accept it or not. The individual is precipitated into a word steep in science. In academic terms, we have not been able to understand that science is substantially a decisive factor in training the whole personality and on meeting is multifarious demand. The point is further elaborated such as the activity to observe, to experiment, to invent, to innovate, to classify experiences and information, to express oneself and to listen in the case of discussion, to train one's faculty for systematic doubt, to read scientific literature, a never ending exercise to question the word in ways containing the scientific and poetical frame of mind, are some of the important attributes to be developed in the individual through program of scientific distance education and training. If one could look at around the world, one can easily realize that scientific foundations of education have been established. The task before us is how to improve the distance teaching and learning situation, the infrastructure to translate the scientific achievements into a pedagogic reality and how to make education institution rational entities. In short, the future of distance education lies in devising education institutions particularly teacher s training institutions at higher level, more creative, innovative and imaginative in science education for future generation of the country.

TRENDS AND INNOVATIONS

Distance education because of its innovative importance, has become a major concern to the developing countries including Pakistan, particularly during the last three decades. Priority is being, accorded both to its quantitative expansion and qualitative improvement. The recognition is gradually gaining strength that education be treated on priority basis, as it is an important subject enjoying dynamic decisive and strategic status in all spheres of human life. The curriculum, physical facilities the instructional resources, methods of teaching and the use of local resources are the basic issuers addressed in such development efforts and policy initiative of the government. Improvement of the quality of public instruction particularly in scientific distance education has been accorded high priority in the recent education policy. It envisages major changes to be introduced in curriculum, textbook, teaching methods and evaluation techniques. The training of teachers with emphasis on the acquisition of practical has been specifically stressed.

i) Emerging Trends

Distance education both from conceptual and practical viewpoint, has been revolutionized. New changes and development of the modern world have characterized the nature, scope and significance of the discipline. In science education at school level, more attention is given to practical aspect of teaching emphasizing at child centered and individualized institutions. There is greater focus on first hand experience by pupils in the learning process with stress on enquiry, and discovery approach. Greater concern is visible for the process of science instead of emphasizing its structure and the logic of discipline; a shift is also evident towards the appreciation of science and incorporating knowledge of technology in scientific program. A strong tendency towards a unified and integrated approach to the context in science, is another striking feature in the present developments. The linkage of science with work experience interlocking of cognitive knowledge and practical application and use of environment and community resources have been important elements in this approach. Moreover, science curriculum has been developed on a package of instructional materials consist of text books, guide-books, lab manuals, formative evaluation and out of school science program. The traditional method of teaching is giving way more to provocative oriented approach to science teaching where hypotheses are tested, where the curriculum reveals the degree of "creativity, imagination and excitements". In the scientific approach, activities of life observation, collection and categorization of data relating to evidence to the conclusion, are through the basic business off science education. Hence the emerging changed scenario; the mystification and the popularization of scientific distance education are seen moving in the right direction.

ii. Innovation

Large number of innovations has been introduced in scientific distance education at school level. All these innovations aim at involving more effective and more flexible forms of education-innovative structural changes such as integrated schools, multivalent schools, modular scheduling individuals are being tried through individualized instructions when stress personal diagnosis and extending the practice of self-education has been introduced. In this approach, according to requirement and abilities each student is assigned a program of studies/practical work to be carried out, sometimes in group and sometimes alone. Concepts in the organization and structure of knowledge are changing school program are no longer a continuous process divided into chapters of equal importance. They are becoming modular system allowing for the creation of packages. Learning resources are diversified particularly by multi media approach developed through school radio and television program. School scheduling is creasing to be cut into uniform slices. Its pace varies diversified, work replace lock step uniform advancement for all. Teacher role is changing the authoritarian delivery of knowledge is being supplemented by spending more time, diagnosing the teaching needs, motivating and encouraging study and checking the knowledge acquired by students.

DISTANCE EDUCATIONAL AND HUMAN RESOURCE DEVELOPMENT

Educational and human resource development are being stressed simultaneously against the dual challenges of war against poverty in the developing world; and revolution in the rising rooms of industrially and technologically advanced countries. The scientists of divergent fields working in their respective and interdisciplinary areas, have engaged themselves into a variety of aspects of national and international uplifts, centering development, among other things, the education and human resource development. A mass literature with numerous textbooks, technical and research monographs, statistical bulletins, scientific journals and other type of cognitive works, have appeared recently, which just few years ago did not exist strengthening the fact that interest in the current knowledge problems and policies of education and human capital development, has increased tremendously, and its fruit need to be extended to public at large. Public faith in education and human capital growth, particularly in the developing countries with surplus labor force, has reached to the point of over-acceptance. Developing nations now express faith in education and human potential development to which they remained hostile or indifferent for centuries. The social climate, both at national and global; levels, has become increasingly favourable for education and human resource development. Numerous national and international institutions and agencies, have now appeared in bulk stressing, the better and optimal utilization of human education of resources. Interest in the theory and practice of the current world issue has provoked new traits of thoughts. There has been a renewed or a reviewed interest among professional economists on the theme of human education and economic development. The steady dismantling of the traditional colonialism and the stride of emergence of new independent states have centered on the epoch of education and human resource development. The increasing awareness of the communities of the third world has eventually led to an innate desire of rapid transformation through the New World socio-economic and technological order. The emerging fears, threats and aspirations of the atomic and nuclear age and the global repercussions have inevitably fastened the need and importance of education and human potential development.

THE LITERACY QUEST OF DISTANCE EDUCATION

Despite the massive efforts over many years to achieve literacy throughout the region and throughout the world, the quest for literacy for the whole population remains the first preoccupation of many educational planners and policy-makers, and indeed of many of their political masters. Literacy may be expected to continue a central concern, probably the overriding concern, of non-formal education in this region for both out-of-school youth and adults. In many countries of Asia in the past and even still today adult education is understood - however wrong this may be

in theory - as no more nor less than literacy teaching. One advantage of adopting the term non-formal education in place of "adult education", apart from the fact that it spans the wider age range, could be that it is not confused with literacy teaching as has been 'adult education'. We should guard against any tendency to repeat the same mistake and come to use non-formal education also in this too restricted ways. Literacy has come to be regarded and described as a fundamental human right. Governments of Asia have made many fine statements of intention to eradicate literacy. Yet the increase in population has meant in many countries that although the percentage of illiterate people has dropped, and the absolute number of literate therefore risen dramatically, the absolute number of illiterate people has also continued to rise. Within these total figures are hidden further acute problems. Illiteracy may be very much higher among women than among men, among older than among younger adults, and among remote populations and ethnic and other minorities than among dominant cultural and language groups of a country. Extension of literacy may indeed be hampered because national policies for integration require literacy instruction to be the national language rather than the language of the minority groups.

In recent years there has been some hesitant questioning, within the region and beyond, as to whether literacy is after all so important. It has been suggested that the combination of continuing strong oral traditions in some cultures, with easy access to radio as a means of acquiring information from the outside world, is sufficient to provide communities with all the sources of knowledge and information which they need. Sometimes this is associated with a concern that literacy, like 'development', may be destructive of cultures and traditions, and that the end results, while it may contribute to national productivity of some cash product required by the world market, is to leave the communities thus educated exposed and exploited by outside interests and less rather than more happy or complete. In the presence of never ending evolution in scientific distance education, the traditional methods and approaches are now less and less accepted, as they have become outdated. On the contrary, scientific teaching will require a more pragmatic search for the solution of problem arising out of environment, either directly from reality or derived from models. Another reason is the artificiality of literacy rates themselves. Not only do they disguise great disparities within a country. They may also indicate nothing more than the capacity to write one's own name, not even to read simple information, much less to cope with the various demands for reading and writing made even on remote rural as well as on urban communities. Happily the governments and educationists of the Asia and Pacific region have shown a refreshing tendency not to be drawn into this game. Country reports to regional meetings on literacy tend if anything to learn in another direction, emphasizing the grave continuing difficulties, and the hidden literacy even among the number of those declared officially to be literate.

DISTANCE EDUCATION, A NEW APPROACH

Distance education itself is entirely new; non-formal or community education has occurred in all societies before formal education through schooling was established, but it has been largely ignored or even destroyed by the provision of a school system. In speaking of a new paradigm we mean an act of recognition of what already exists, such as the unused and under-used educative potential of the community, and what in addition might come into being by deliberate contrivance as a result of this act of recognition. If non-formal education, as a new philosophy, policy and strategy, is born out of new development perspectives, it arises also from the discovery that these values cannot be realized through pursuit of more of the same in the formal school system. Universalization of basic education through the formal system, and progressive extension of the period of formal schooling through raising the minimum school leaving age, the target for Asian countries in the early sixties, has proved for many to be a receding target despite massive increase in the educational budgets. As it becomes clear that educational budgets cannot continue thus to expand, that they may already be at or beyond their viable maximum as a proportion of GNP, and as evidence continues to accumulate of the efficiencies and dysfunction of the formal school system, more of the same has become less creditable to educational planners in various countries.

The following should be the immediate objectives/approaches in this area of innovation:

1. To promote awareness, understanding and insights into the design and development of distance (non-formal) education programs relevant to developmental goals of the countries, with particular reference to: (a) universalization of education for meeting the needs of rural and other disadvantaged sections of the population; (b) utilization of local land sound indigenous practices;
2. To contribute to enhancing national capacities to design and develop distance education programs for productive skills and better health and nutrition suited to their needs and resources, with reference to (a) content, (b) methodologies, (c) linking formal and non-formal education programs;
3. To promote the development of new strategies and alternative approaches for mobilizing active participation of the community in the planning and organization of their own non-formal education programs and in coordinating and inter-relating such programs with other development programs;
4. To provide opportunities to study the design and development of alternative structures in education which link formal and non-formal education program; and
5. To enhance awareness of the need for innovative non-formal educational programs related to the development themes through case studies and collection and dissemination of information and materials.

FUTURE STRATEGIES AND INNOVATION FOR DISTANCE EDUCATION

The studies and research work done for the government by certain universities cost much less than what is paid to the army of consultants. The increased use of our universities by the government and semi-government organizations for research surveys and studies will help in developing them into reliable and competent think tanks, promote inter-university linkages and built up cadres and teams of scholars and researchers who are essential for the planning process in the government as well as in the private sectors. The universities to which such government assignments are given will also benefit financially, almost and expand its educational services. In Pakistan also, some universities and colleges have taken profitable initiatives in this direction but, at times, official formalities and red tape cause unnecessary delays in the completion of foreign research assignments, particularly in relation to government run universities. In the present age of computers, the internet and website and the amazing revolution in the information technology, utmost promptness in the handling of foreign assignments and the reliability of the data furnished are exceedingly important. The advances in the realm of information technology have opened up new avenues of useful foreign contacts for our educational institutions, especially universities. By availing the new leaps in the communication technology, informatics and the revolutionized teaching methodologies, our universities, colleges and schools can vastly enhance their teaching skills. The universities in Pakistan can also have cooperation from Commonwealth of Learning, hosting this international distance education and open learning conference during July-August, 2002. The participants of this conference will be benefited by the reports and recommendations and from each other in distance education and many other fields.

AGRICULTURE THROUGH DISTANCE EDUCATION:

Relatively, very few Institutions in Pakistan teach agricultural subject at a distance. It is suspected that this is partly to do with a belief that agriculture, as a subject with a significant practical element, is difficult to teach via open or distant education. Such a view would conflict with experiences in the foreign countries where there is a strong tradition of teaching agriculture at a distance. Moreover, in many developing countries including Pakistan, it is important for national development to persuade rural people to remain in the countryside working the land. Distance education could help them to farm better and make more profits without leaving their land. The agricultural instructions in which the distance education could have an impact lies in the fact that the farming education for farmers in the farm radio/TV forums, radio learning groups and corresponding courses for farmers and the extension programs of agricultural universities should be initiated and strengthened. The in-service training and up-grading for

agricultural extension workers through the diploma courses to be launched by the open universities through distance education can be initiated by training man-power and sharing experiences on the international level in the conferences/seminar. This should also include the incentives to be given to the senior agriculturists/teachers to get the objectives of gaining the global perspectives. Agricultural education at a distance is isolated. In Asia, there is very little data reported, although a few agricultural universities, which offer courses failed to submit data in time. We do not believe that the lack of courses suggests a lack of demand but indicates misplaced doubts about the ability of open and distance education to fulfil the agricultural training needs. We believe that there is great un-exploited potential in distance teaching for agriculture.

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