

## **CONTINUING EDUCATION: CONCEPTS AND STRATEGIES**

**Manorama Verma  
Tejinder Singh**

The concept of education has undergone tremendous change over the last many years. Two important changes, which are making their presence felt are a shift to learner centered learning and secondly, its importance as a life long process(1). We now no longer believe in imparting few facts and figures over a period of time—rather, the objective is to arm the learner with strategies and concepts to continue LLL (*i.e.*, Life Long Learning). Since most of the teaching in our medical colleges is based on the traditional teacher centered models, our graduates find themselves at a loss once they come out of the medical college. While the interested and motivated ones engage in what can be termed self-study, for others, end of medical schooling usually means end of learning.

There are many reasons for provid-

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*From the Department of Pediatrics,  
Christian Medical College, Ludhiana  
141 008, Punjab.*

*Reprint requests: Dr. Tejinder Singh,  
Reader in Pediatrics, Christian Medical  
College, Ludhiana 141 008, Punjab.*

ing continuing education to physicians. Firstly, they do not always receive basic training which is relevant or adequate. Secondly health knowledge changes over time. New programmes, new techniques and new approaches are of little use unless the physicians are able to learn about them and find ways of using them effectively in their daily work. Thirdly, many physicians initially trained for one job may find themselves doing another one (*e.g.*, managing a primary health centre). In all these cases, the standard of performance is less than expected, resulting in what can be called a 'performance gap'.

Primary health care requires health workers and physicians to acquire new , knowledge and skills. There is a very vital link between appropriate continuing education and successful implementation of health programmes. After basic training, the learning process needs to continue, not only to acquire important: technical information but also to support and motivate and reduce their isolation. At the same time, continuing education should play a part in improving quality of health services by enhancing skills and encouraging best use of limited resources.

Continuing education should aim to stimulate and promote learning. It should facilitate access to relevant learning material. Conference, seminars, symposia and CME programmes do offer an avenue for such activities but due to logistic reasons, the audience is very limited. Time, distances, money and employment reasons prevent vast

majority of doctors from taking meaningful advantage of these activities.

A performance gap does not necessarily and directly translate into a need for continuing education. Lack of appropriate knowledge and skills may be one reason but other reasons are related to lack of resources, poor motivation and poor work organization. Obviously, many of these possible solutions are not easy. Continuing education and training is mainly a solution to problems created by the performance gap at the level of knowledge and skills. Nevertheless, it is still a very important factor.

Continuing education can be viewed as a set of organizational and procedural guidelines(2) for educational practice aimed to foster learning throughout life. Such learning is lifelong and is what can be called 'deliberate learning'. Such learning is intentional, *i.e.*, the learners are aware that they are learning. They have a definite specific goal and this goal is the reasons why learning is undertaken. The learner intends to retain what has been learnt for a considerable period of time.

Thus, conceptualized as a means for facilitating lifelong learning, continuing education would last the whole life of each individual. It would lead to systematic acquisition, renewal, upgrading and completion of knowledge, skills and attitudes with the ultimate goal of promoting the self-fulfilment of each individual. For its success, it would depend upon the learner's ability and motivation to engage in self-directed learning. It would encourage the contribution of all available educational influences including formal, nonformal and informal.

This approach focusses on the duration of continuing education (entire life span), factors in life making continuing education necessary (change), personal characteristics it seeks to foster in the learner (self directed learning) and comprehensiveness of the influence acknowledged as acting upon learning (formal as well as informal).

The innovation of continuing education is no doubt a promising one but the task of developing a system to deliver goods effectively is immense and difficult. There are no clearcut prescriptions available.

Besides an increasing ingenuity and creativity that it requires, the most important task for the system is to choose appropriate instructional method which will cater to the needs of a variety of learners. Also ^required will be an ongoing feedback mechanism.

Continuing education strategies vary. Two common approaches that are used can be called '*the cascade*' and '*the mushroom*'(3). The *cascade* begins at the top by creating a national body of knowledge which is then passed down through different levels of training programmes. 'Quality re-inforcement in universal immunization programme' can be cited as the example. However, there are two major problems with this approach. One that the message gets diluted as it passes more and more downward and second that it is difficult to continue the programme in a meaningful way, once the training is finished.

The *mushroom strategy* starts at the local level, in areas with strong leadership. While this strategy is designed to run with a low input of resources and

may be successful initially, the message gets diluted and it is difficult to maintain a programme after initial enthusiasm. The 'Reorientation in Rational Pediatric Practice' programme provides a typical example.

We must admit that no simple methodologies are available—however, we can look forward to *Distance Learning Systems*(4) to provide us an answer, which would be more operational and practicable than conventional programmes. The answers that we are going to seek can be stated in terms of objectives of instruction in the context of life long education which have been shown in *Table I*.

**Distance Education**

*Distance education* is a coherent and distinct field of educational endeavour. It is more than a mere teaching mode-it is a complete system of education. It has its own laws of didactical structure. It has inbuilt mechanisms for tackling the problems of quantity and quality and is

recognized as a felt need in most national educational systems(5). Distance education offers easier access, better quality control over course materials, a more intimate interface with employment, possibility of cumulative improvement in pedagogic quality and lower costs.

Before proceeding further, it should be clarified that distance education is *not synonymous with* correspondence education-it is much more than that. Keegan(6) has attempted a comprehensive synthesis of characteristics of distance education which can be stated as follows:

- (i) There is quasi-permanent separation of teacher and learner (cliF: face to face teaching).
- (ii) There is influence of an educational organization in planning and preparation of learning materials (cliF: private study and teach yourself programmes).
- (iii) Use of multimedia approach like

TABLE I—Objectives of Instruction in the Context of Life Long Learning

Vertical Integration	Horizontal Integration
The learners should be able to	
* Acquire self image as life long learners	* Regard learning as relevant to formal learning
* Produce positive motivation for further learning	* Able to learn in a variety of settings
* Regard learning as ongoing process	* Regard the learners as a valuable source of knowledge
* Gain experience in planning learning	* Able to integrate material for problem solving
* Evaluate their own learning and take corrective action	* Evaluate their progress in terms of broad social context

audio, video, computer and printed material (clif: correspondence courses).

- (iv) Provision for a two way communication so that even the *student can initiate* an academic dialogue.
- (v) Quasi-permanent absence of a learning group so that people are taught as individuals and not in groups with possibility of occasional meetings for both didactic and socialization purpose.

Though the contents may differ amongst different institutions, these five components remain an essential feature distance education. It can thus aptly be termed as a system which permits in-utationalization of private study as II as privatization of institutional learning.

The Indian Academy of Pediatrics is in a unique position to take up this challenge not only for pediatricians but also the vast majority of general practitioners. In order to do so effectively, the owing issues demand consideration:

- (i) Study of the profile of learners so that the learner is not an anonymous entity 'out there'.
- (ii) Identification of resources conducive to learning.
- (iii) Developing study habits, study skills and positive attitudes of the learners.
- (iv) Making the instructional material comprehensive and self contained.
- (v) Staff development programmes.

Let us now examine some of these issues in detail.

#### (a) *Instructional Materials*

One of the most distinguishing aspect of DLS is what can be termed self-instructional material (SIM)(7). These materials are able to act as surrogates for actual teacher. At the same time, they allow the efforts of best teachers to be duplicated and disseminated. SIMs help to motivate the learner, exploit on what he already knows, provide learning activities, facilitate retention and transfer of learning and provide occasions for feedback. Quality of SIMs reflects the quality of any distance learning programme.

It may be out of place to go into the details of SIM production but suffice it to say that the two basic features which distinguish SIM from ordinary text books are *access devices* and *learner active materials*. Access devices help the learner to grasp what is presented in a study unit. Learner-active materials are those which have to be worked through. This material does not lend itself to such reading as reading a novel, etc.-rather it requires an active participation of the learner and possesses an adequate number of access devices to achieve its objectives.

The key person in SIM production is the course Editor (different from a conventional editor, whose task is limited to copy editing). This Editor is responsible for identifying the learning needs, selecting the appropriate media (*viz.*, print, audio, video, *etc.*), selecting the course writers and subsequent technical aspects. It may be difficult to have an Editor who is well versed with medical education this problem can be tackled by training medical educators in field of

distance education. Similarly, course writers with orientation in distance education will also be extremely useful in producing good quality SIMs. However, if it is desired to have a material produced by eminent teachers, who may be unwilling to undergo such training, they can be asked to write the units, which can then be converted to SIM by the trained editor. Help of distance education institutes like Indira Gandhi National Open University (IGNOU) can be sought in organizing workshops and short term training programmes for editors and course writers, from amongst the able and qualified manpower at the disposal of IAP. Experience shows that even such training can be conducted by the distance mode(8). - Producing SIM will be the single most important contribution that the IAP will make in the field of continuing education. Not only will these materials be useful for doctors who want to study for personal enrichment but for the medical students as well.

*(b) Multi-Media Approach*

Distance learning differs from correspondence education in the sense that the former adopts a multi-media approach. This is necessary, since print medium alone is unable to meet all the objectives of a particular course this is particularly true of psychomotor and affective domain, where recourse must be had to other means of instruction(9).

The TAP should produce or acquire good quality educational video cassettes. These can be kept at the study centres where the learners can view them at their leisure time. These can even be made available to individual learners on payment.

The video cassettes should cover such common topics as immunization, safe delivery, nutrition, national health programmes, dispensing, record keeping dealing with patients, imparting health education, *etc.* Common procedures can also be demonstrated by them. Eminent medical men can serve as role models for fresh graduates on these aspects. Similarly, video can play an important role in bringing about the attitudinal change in fresh graduates. Group discussions can be recorded and replayed any number of times to strengthen the desired behavior.

Arrangements can also be made for establishing 'skill labs' at the study centres. Learners should have the provision of attending them on weekends and perform common clinical procedures. Simple bed side laboratory tests can also be performed and learnt under supervision. These labs will also provide an opportunity to the learners to interact with their 'tutors' as well as peers and share their experiences.

*(c) Decentralization*

Regional centres should be established in each state and these should be academically viable. The location of regional centres should be decided on the basis of opportunities for continuing education. Preference should be given to backward areas so that if learners 'can't come to Aristotle, the Aristotle can be brought to the doorsteps of the learners'.

Under each Regional Centre, a number of study centres should be created. For logistic reasons, these study centres can be located in medical colleges so that existing infrastructure can be used.

These study centres will act as the point of contact between learners and the college. Medical teachers can be designed as 'tutors' and by rotation, each tutor can hold a session once a week. However, these sessions are not meant to be lecture sessions—rather, they will be meant to solve the difficulties and problems of the learners. On those particular days, library facilities should also be made available to the learners. Needless to say that other instructional media would also be available at these study centres.

Study centres have another important role to perform and that is to develop sound study skills in the learners. Most of the learners have left colleges for a variable period of time and may find it difficult to find time (and use it effectively) for self study. While printed material on this aspect can be despatched alongwith the SIMs, study centres can organize group discussions involving learners as well as medical students. These will be of immense use to both of them.

It is reasonable to assume that this will bring the Academy closer to learners and provide them with better opportunities for academic interaction. This will also sensitize the medical teachers to the problems of general/private practitioners and prompt them to mould their teaching accordingly.

#### *(d) Staff Development*

Last but not the least, important aspect is the development of staff involved in this endeavour of distance learning. The following category of personnel will need to be trained for maintaining and sustaining the

system-course planners, editors, course writers, counsellors and distance teachers. This training can be effectively carried out by the distance mode itself and ample opportunities exist in our country for the same(10). In Tanzania(8), the Ministry of Health made such an attempt and could successfully develop modules covering diarrheal diseases, respiratory infections and environmental diseases, respiratory infections and environmental sanitation. The distance mode has been successfully used for teaching epidemiology and bio-statistics in Australian 1) and found to be not only pedagogically useful but also highly cost effective. Once we build up a corpus of people trained in distance education, the multiplier effect will help in enlarging that corpus and thus make the system a self propagating one. The postgraduate diploma in distance education, offered by ICNOU is an extremely useful course and can serve as a good take off point.

There would be another indirect advantage also. Medical teachers trained in distance education will be able to apply that knowledge in their regular class room teaching. This has been tried in our institution and the results have been encouraging(12). Health education and community outreach activities are also greatly influenced by this knowledge.

Continuing education, as already stated, should aim to promote and stimulate learning. There are a diversity of methods available the selected method should be relevant to the needs of different learners and the ways in which they learn. As educators, we should be aware of their needs and find way to respond.

By providing flexibility and learner autonomy, Distance Education offers us an effective and efficient tool for promoting continuing education.

The philosophy of distance learning can be effectively applied in the field of medicine<sup>(13)</sup>. It is high time we take up this opportunity and plug the 'performance-gap' of all categories of physicians by a means which is easy, cheap, affordable and long lasting, *i.e.*, distance education.

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