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Technological Innovation In Open And Distance Learning: An Aid To Providing More To Children And Young Through Integration With Formal Education

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The use of modern technological tools, also known as e-technology, in open learning is advocated on many strong grounds: wider and faster access to the learners, cost-effectiveness, better impact due to audio-visual attribute, easy editing and modification to incorporate new developments, repeatability and so on. These arguments are advanced to have a better, vibrant and more effective open and distance learning system.

However, a more significant role still remains unassigned to this new technology-mediated learning. The new role, with an underlying aim of bringing forth socio-economic development in the communities through learning, is to provide learning opportunities to larger number of children and young people. The paper seeks the assumption of this role through integration of non-formal and formal systems of learning.

The objective of the paper is to highlight the crucial role newer and modern tools can play in providing learning opportunities to larger number of children and young people and thus building wider and deeper learning communities through integrating non-formal system and the formal system of learning. It will also discuss the ways and modalities in which this new role should be assumed. The linkages between the technology-mediated learning and integrated learning on the one hand, and the availability of higher learning opportunities to larger number of children and young people on the other hand will be presented in the paper predominantly. As a corollary to it, the paper will also highlight the need and advantages derived through such a technology based integration to communities especially of developing countries as well as to different components of the system viz. learner, teacher, administrative staff etc.

However, the integration here should not be conceived as assimilation or merger of both the systems. The two systems have to be operated separately and independently. The spirit behind integration is to utilize the best features of both the systems so that quality education could reach to all communities in an indiscriminate manner.

The integration, though generally advocated at post-secondary and higher level is inadvertently required at all levels. It is so because one level passes the final product, the learner, to the other level and thus entire chain has to be completed without breaks. With the larger numbers of children and young people among learners, the quality of the community will increase, since the learner is the future member of the community and community absorbs learner's net capability and the learning. And since communities form the world, the quality of the community will determine - among other variables - quality of the world. A more developed and prosperous world is the target.

The paper starts with describing the key features of the formal system. It highlights the limitations of the system. In the same sequence, it describes the key features and limitations of the informal system. The main part of the paper is devoted to how e-technology can successfully be used to integrate both formal and informal systems of education thus overcoming the limitations but simultaneously enjoying the benefits of both the systems. It concludes with the remarks on how integration will provide learning opportunities to larger number of children and young people and thus be building wider and deeper learning communities.

FORMAL SYSTEM

Concept

Under the classical system, the instructor / tutor / teacher stands at the front next to the black/white board and the students sit at their desks. The teacher delivers the lecture or presentation. This presentation can be supported with video projectors and electronic presentation softwares like power point etc. Learning materializes first by listening and discussing in the classroom and then by reviewing the presentation slides or reading the reference book.

Further, there are constant reminders that knowledge acquisition is the main focus. The education process focuses on how to maintain the "trusting environment" image where students can be stimulated to acquire knowledge on certain subjects, evaluate their level of learning, and in the process, enhance their own value proposition through existing faculty.

However, the formal system suffers from some of serious drawbacks which are mentioned as below.

Limitations of Formal System

1. Constraints in attaining overall objectives of education

In the present formal system, there have been great constraints in attaining the overall broad purpose and objective of education in terms of the student, society and nation. The constraints are that education, by and large, has become just a degree awarding process. Students do not want to be educated, they want to have a facility for getting a degree.

2. Constraints of syllabus

Syllabus in the formal system has many constraints. The first is preconceived notions about the sequential arrangements and combinations of the subjects. Second is rigidity in time limit for completing the syllabus. Thirdly, there is lack of parallel courses running simultaneously mainly due to constraints of physical infrastructure and faculty.

3. Constraints of delivery system

There are strong constraints of delivery system in the formal system. These constraints are mainly in terms of teaching-learning process. The teaching process, in fact, has become straight jacketed today in this system. It may be partly because of the larger numbers that have been admitted into the system. But now the system has been reduced entirely to lecturing.

4. Constraints of evaluation

This limitation addresses the question of certification and examination. The present system of evaluation in the formal system is full of shortcomings and problems. These defects and problems have a backlash, so to say, on the teaching processes; because the examination is of such overwhelming nature that teaching reduces itself to fit into the pattern.

5. Lack of standardization

In most of the places, the formal system has a wide variation of quality standards from excellent to very poor. It does not have uniformity or a narrow band in which the standards and quality of education lie. Because of this, the comparison between same courses being run at different places by different institutions or universities is impossible or is faulty, if carried out.

6. Not accessible to all

Formal system has limited accessibility mainly in terms of two counts – first, in terms of enrolment accessibility and secondly, in terms of geographical accessibility.

7. Lack of adequate infrastructure

The formal system, as per the learning methodology it adopts, requires huge infrastructure. However, in many cases, the institutions of formal learning lack required infrastructure in terms of teachers, class rooms, furniture, seminar hall, laboratories, building etc.

8. High cost

Formal education is very costly. As a result, expansion of the system on a large scale becomes very difficult. Further, not all the learners who wish to avail it can take advantage of it because of their limited affordability.

OPEN LEARNING AND DISTANCE EDUCATION SYSTEM

Concept

Open learning and distance education system is designed to offer opportunities for part time study, for learning at a distance and for innovations in the curriculum. They are intended to allow access to wider section of adult population, to enable students to compensate for lost opportunities in the past or to acquire new skills and qualifications for the future. This system aims to redress social or educational inequality and to offer opportunities not provided by conventional colleges or universities.

Thus open learning system can be viewed as a part of the educational reform to reach wider and deeper audiences. As a reform, it throws up new possibilities before us. It gives us an opportunity to go off the beaten track, to bring about an improvement in the educational situation in any country.

However, the open system also suffers from drawbacks which are described as below.

Limitations of Open System

1. No social interaction and initial high costs

Students in an open learning system lack an important factor in learning – social interactions through face-to-face communication – which is present in formal system. This might have important repercussions on their education.

The social isolation is more severe if it is purely an e-technology based open system. It incurs high costs also at least initially to have access to computer and internet and other related required technology.

2. Deterioration in reading and writing skills

An e-technology / web based distance education system results in deterioration of the reading and writing skills of the students. With everything going virtual, they are left with little opportunities when they write some text on their own after reading many references.

3. Possibility of unfair practices

In a web based learning system, practically all course related materials are available on the web. Due to easy accessibility, the students are tempted to resort to unfair practices by copying and pasting the material onto their assignment papers.

4. Compulsion to learn new skills

A web based distance education system cannot be used unless the participants are computer savvy. Students as well as faculty are required to acquire online skills and competencies to utilize online learning facility.

5. Privacy issues

Another limitation is in the form of students assuming virtual identities, quite distinct from their real identities. This is possible because of the anonymity of the Web. This also encourages non-integrity in sharing their true thoughts and experiences about the learning process.

6. Possibility of personification of the student

One of the major concerns in a virtual learning distance program is whether the registered person is sitting the examination. Since the students are from around the world, it is not possible to assess them in strict time-and-place-bound environment as practiced in traditional mode of assessment.

7. Image of inferior quality courses

Open and distance learning system carries a general image of offering courses with inferior in quality and standards as compared to their counterpart courses being run under formal education system.

INTEGRATION

Integrated learning system combines open and distance learning system with traditional classroom with the help of e-learning components to ensure maximum effectiveness in teaching and learning. It would provide the means to explore new forms of learning that break out of the traditional hierarchies of educational bureaucracy and develop genuine alternatives to rigid, passive approaches to formal learning.

However, mere availability of technology would not ensure the integration. For this, an array of concerted efforts is required. Since the formal education process focuses on how to maintain the "trusting environment" image for learning, integrated learning must create surrounding environment trustworthy enough to build confidence among students to fall in the category of "sure learning". If we ignore this, then the crevice between agendas of formal system and etechnology based open learning system will widen.

Further, there is the danger that the tools of technology are used just because they are the latest phenomenon. Though these tools are extremely valuable, tools are tools and just that. Without sound pedagogical principals guiding the use of these tools, the mission to educate all will fail miserably.

The trade-off between the two systems is not in the form of either/or. Rather, it is a "blended learning" scenario which is in the form of the integration of the benefits of both the education systems. Adopting integrated approach will provide solutions to the limitations of both systems.

The degree of integration of e-learning and the traditional classroom will vary, depending upon the type of the learner and the current education scenario. For example, the element of e-learning would be higher in the case of non-local full-time and part-time learners than the local full-time learners. Part-time learners in most of the cases are more mature students. They have had the experience of traditional lectures and traditional communication with faculty and students, and are motivated enough to continue without constant face-to-face contact.

An integrated approach would be beneficial in the following ways.

1. Attainment of the broad objectives of education

Integrated approach will help in introducing the broad objectives of education namely, national development, national cohesion and social change. In particular, the achieving of some of these objectives requires a certain kind of training and re-orientation of teachers and a certain kind of training and re-orientation of managers. That can be done in the integrated system.

2. Overcoming social isolation

In an integrated approach, lively online communities can be created and maintained to fill the gap of social isolation. Students can work together in a "computer cluster". Email, computer conferencing and the Web increase opportunities for students and faculty to converse and exchange work much more speedily than before, and more 'thoughtfully' and 'safely' than when confronting each other in a classroom or faculty office.

3. Teachers

In an integrated approach also, teacher has to be there. The integrated approach would provide the teacher with open and flexible facilities to share and negotiate with other teachers from the same specialization and the technical team.

His role would shift from a 'traditional teacher' to that of a 'course designer', programmer', 'facilitator' or 'manager of student-selected information services'.

4. Training Programs

One of the key factors for the success of integrated learning is the teaching – learning environment emerging from faculty conceptions. Training helps develop the required conceptions in the participant's mindset by addressing his inherent pedagogic attitudes. There are four critical elements that can guide the conceptual change:

- 1. Self awareness of one's teaching conception
- 2. Confrontation between one's own conception and practices and between one's own conceptions and conception of the others
- 3. Exposure to better alternative conceptions
- 4. Commitment building and refreezing

In order to attain conceptual change, concerns or doubts regarding self or task must be answered in an effective training program.

5. Transferability of candidates

In an integrated approach, there should be transferability of candidates from the formal to the open learning system and vice versa. A candidate who for various reasons is unable to complete a programme in the formal system should be able to migrate to the other system and carry with him some of the credits or some kind of equivalence. It means that students with incomplete programmes in one system should be able to migrate to the other. After completing degree programmes also, migration should be possible – which, of course, is permissible in the present set up in most of the cases.

6. Assessment

The evaluation or assessment is the issue which still has to be resolved satisfactorily in virtual distance program. Therefore, the integrated approach will adopt the evaluation system more or less similar to the formal system. If it is objective type, the evaluation can be done through computers also.

Depending upon the degree and extent of the technological advancement of the environment in which one is operating, however, the following tools may also be employed gradually for assessment of the learning:

- Computer Adapted Testing (CAT)
- Open Resource Examinations
- Portfolio Assessment

7. Standardization

In order for the open and distance program to be treated as equally standardized and quality wise superior as the formal system, the integrated approach must set standards in terms of the quality of courses. However, while doing so, the objective of reaching all should not be forgotten. If standards are too high, fewer students will get enrolled. Conversely, if they are too low, the worth of the degree may be lost. A balanced approach should be adopted so as to maintain at least parity with the formal system.

8. New courses and new combinations

Many kinds of new courses and new combinations have to be provided in an integrated approach. There would be a greater degree of flexibility in selecting the courses and appearing in the examinations as distinct from the formal system where a strightjacketed approach is adopted.

9. Research

There are possibilities of cooperation between the two systems in the sphere of research in learning. At the moment a lot of expertise is done in the formal system and the people there can be utilized to engineer and set up systems of evaluation and research relating to both the learning processes that take place in this sphere and also in the education system as a whole.

CONCLUSION

Teaching-learning is a process and not a problem. Therefore all solutions in integrated approach need to consider primarily teaching-learning process and not just preparation of stand-alone reusable learning objects. What actually is needed is a balanced and appropriate approach incorporating the benefits of both the systems.

No doubt, e-learning resources, if developed and deployed appropriately, have the power to significantly enhance the learning experience. Nevertheless, in disseminating integrated learning, the approach should be to adopt a simple technology scenario rather than a complex technology scenario. The overemphasis on complex technology may put a turn off particularly to those participants who want simple ideas and simple technologies to deliver the pedagogic model they are comfortable with. This is not to say that technology should drive the pedagogic model. But the viewpoint is that transition should be in a phased manner starting initially with the propositions the participants are comfortable with. Slow and steady ushering of integrated learning would increase the involvement of users.

Further, the success of integrated learning is very context specific. What is a good practice in one situation may not be for another. The emphasis should be on appropriate integrated practice, appropriate in terms of near-perfect match between what each type of practice offers and what is needed in order to evolve a fully articulated educational system.

In general, the range of programs and various modalities to be evolved in integrated learning should be such as are more responsive to learner's needs and his cognitive, affective and psychomotor differences. It should be adopted vigourously and at the various levels. Only then, open and distance learning system will find its legitimate place and will work as an equally responsible complement to the formal learning system. And only then it will be providing successfully learning opportunities to larger number of children and young people and thus building wider and deeper learning communities Otherwise, it will become merely an extension and an appendage of the formal system. In that case only the rejects of the formal system will come to this system. And that would be the most unfortunate event.